THE REPORT

The Magazine of the International Institute of Marine Surveying

DEC 2025 | ISSUE 114

LESSONS FROM THREE GENERATIONS OF MARINE SURVEYORS

IDENTIFYING SINGLE POINTS OF FAILURE IS KEY TO MARITIME SAFETY

FUTURE OF SUPERYACHT REFITS: SUSTAINABILITY AND SMART TECH

SAFE CARRIAGE OF REFRIGERATED CARGO IN CONTAINERS

How has the Bayesian sinking impacted the yachting industry?

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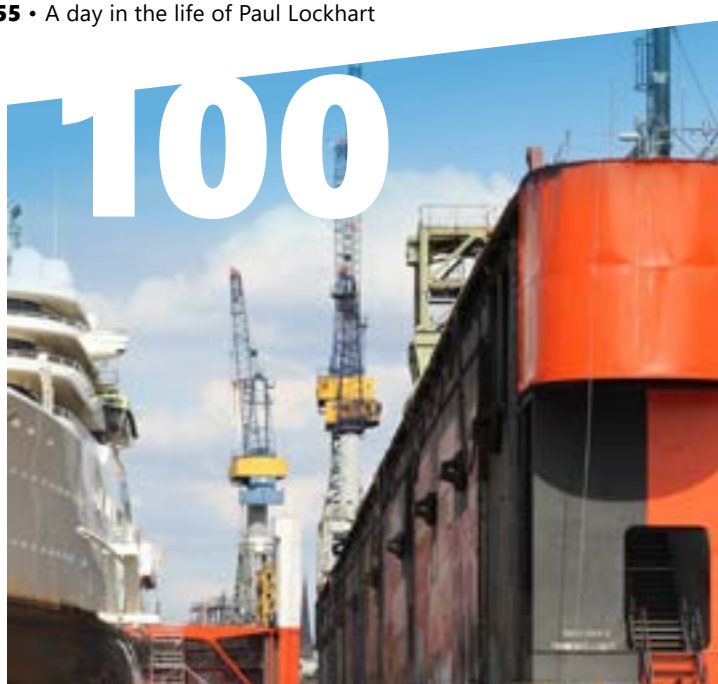

EDITOR'S LETTER

Dear member and fellow maritime professionals

I am delighted to welcome you to the latest edition of The Report Magazine, number 114, December 2025. If you are a regular reader, you will know that each quarter we search for relevant articles and stories to publish that affect marine surveyors and the wider maritime community, many of them commissioned and unique to The Report Magazine. This edition is no different.

Regular regulation changes are something we learn to tolerate and accept, but as we approach 2026, the list of upcoming new and revised regulations looks daunting and likely to be burdensome for some. Of course, as a surveyor, understanding the rules is of key importance. So, we have curated these in one long article in an attempt to guide you through what's new (see page **63**). Also, of interest to many will surely be the new MCA Sport or Pleasure Code – the biggest shake up in the small boat commercial sector for a quarter of a century – which has just been announced at the time of writing. I have included references to the new Code, which will significantly impact surveyors and vessel owners/operators.

One of my most pleasurable tasks at this time of the year is to settle down to write a review based on the events that have shaped the lives of the dedicated IIMS team over the past year, and the Institute itself. This has become something of an annual ritual and 2025 has been a special year for me and my colleagues. The article begins on page **48**.

Surprisingly, perhaps, the article on page **90** - *Research finds maritime professionals rejecting full automation* - might come as a welcome revelation to some. It certainly made me sit up and take note.

I am grateful to Capt Phil Duffy who has put together the article entitled *Large Yacht & Superyachts: Analysis of the MYBA (Mediterranean Yacht Brokers Association) Sales Contract and Pitfalls* on page **121**.

Understanding the dazzling world of superyachts can be confusing for many people (me included). These magnificent vessels certainly look the part, but the sector is facing up to some key challenges. The article *Future of superyacht refits: Sustainability and smart tech* (page **100**) takes a deeper dive into this subject.

Back in January, I made a visit to the Sunreef shipyard in Gdańsk, Poland. It was not only a privilege, but also an eye-opener to see their operation at first hand. I am therefore pleased to publish the story *Innovating for impact: Sunreef's blueprint for sustainable yachting* (see page **103**).

One of the stories we keep coming back to as an industry is pilot ladder safety. Indeed, I have published many articles over the years on this topic. And here's another one supplied by CHIRP Maritime entitled *Safe pilot access is not optional – it's the law!*

The article on page **81** by the Chief Commissioner of the Transport Accident Investigation Commission of New Zealand, David Clarke - *Identifying single points of failure is key to maritime safety* - struck a chord with me.

The shocking accident involving the Bayesian sinking has filled countless column inches since it happened last year. Are we any further forward in understanding what really happened? Read the article on page **78** - *How has the Bayesian sinking impacted the yachting industry?*

As always, I'd like to thank all the authors who have contributed to The Report this year. We could not have done it without you!

If you celebrate Christmas, on behalf of myself and all my colleagues at IIMS, may we wish you Season's Greetings and a happy festive period.

Survey well,

Mike Schwarz
Chief Executive Officer

PRESIDENT'S COLUMN

Capt. Ruchin Dayal, President, IIMS

Dear Member and Fellow Maritime Professionals,

We find ourselves in the midst of a particularly exciting phase at IIMS. Much has been achieved in recent months and even more lies ahead as the Institute continues to expand its footprint and influence globally.

Let me begin with a word on the IIMS India Conference held in Goa during September. The event was a tremendous success, attracting wide media coverage and interest from across the maritime community. The discussions were lively, the presentations insightful, and it was immensely gratifying to see the level of engagement from both members and industry participants. In the weeks that followed, several articles and features appeared in national and maritime press, and more coverage - including an interview with our CEO and myself - is expected in the coming months.

Following closely on that success, I had the opportunity to represent IIMS at India Maritime Week 2025, held from 27–31 October in Mumbai. This was a truly global event - over a hundred maritime nations participated, alongside nearly 100,000 professionals and investors. The week saw the signing of more than 600 MoUs worth INR10 lakh crore, showcasing India's growing prominence in the global Blue Economy.

At eDOT, we were proud to host a stall at the exhibition, which drew considerable interest from delegates and officials alike. The experience made one thing clear - events of this scale provide unmatched visibility, not only for individual companies but for professional organizations like ours. I believe it is time for IIMS to consider actively participating in such events as an institute, with a system that allows members to contribute toward the cost and be represented under the IIMS banner. It would give members a platform to showcase their services while enhancing the Institute's presence and credibility across sectors.

The IIMS Conference in Canada in Hamilton, Ontario during October was another resounding success, with over

50 delegates attending. Particularly notable were presentations from Transport Canada executives, who expressed interest in exploring how IIMS might collaborate and assist in implementing a new sub-24-metre compliance programme - a significant development that could open doors for greater collaboration in North America.

Elsewhere in The Report Magazine you will find more detailed reports on both Conferences.

Another encouraging development is the proposed training collaboration with the Marine Surveying Association of Bangladesh (MSAB). In March 2026, IIMS will conduct a series of online courses on Draught Surveys, Ullage Surveys, and Marine Incident Investigation, each delivered by our members. This initiative reflects IIMS's growing role as a global training provider and reinforces the trust placed in our expertise.

Equally exciting are the new educational initiatives closer to home - the recently launched IIMS On Demand Training Portal, now gaining strong traction, and the proposed series of short educational videos in collaboration with eDOT and our HQ design team. These two-minute visual insights on boating and shipping topics will further expand IIMS's reach and visibility among professionals and the public alike.

As we look ahead, it is evident that the Institute is not only growing in scale but also in relevance. From major international conferences to digital learning initiatives, from regional collaboration to standards and accreditation, IIMS continues to champion excellence in marine surveying worldwide.

Let us build on this momentum - together - and continue to strengthen our shared commitment to professionalism, safety, and integrity in marine surveying.

Survey well.

Capt Ruchin Dayal
IIMS President - Master Mariner (MMI), FIIMS (UK), AMS – SAMS (USA), MAIMS (Australia), AFNI (London)

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Oslo floating show returns for 70th anniversary

The Oslo floating boat show – Sjøen for Alle – will return to Sandvika, south of the Norwegian capital, in May 2026, celebrating its 70th anniversary following a successful relaunch this year. First held in 1956 at Frognerkilen in Oslo and opened by His Majesty King Olav V, Sjøen for Alle has long been regarded as the official start of Norway's boating season and an important meeting point for the industry.

After decades as an indoor exhibition and a break during the pandemic, the country's oldest and most popular boat show was reintroduced in 2025 as an outdoor floating event, positioned as both a business platform and a maritime family festival.

Norboat (the Norwegian Boating Industry Association), which owns and organises the event, described the relaunch as a success. Sjøen for Alle 2026 will be held from 7-10 May 2026 at Kadettangen in Sandvika.

Rolls-Royce successfully tests first pure methanol marine engine

Rolls-Royce has successfully tested the 'world's first' high-speed marine engine powered exclusively by methanol on its test bench in Friedrichshafen. As part of a partnership in the meOHmare research project, Rolls-Royce, Woodward L'Orange and WTZ Roßlau are developing sustainable propulsion technology. The goal is to develop a comprehensive concept for a CO2-neutral marine engine based on green methanol by the end of 2025.

"This is a genuine world first," says Dr. Jörg Stratmann, CEO of Rolls-Royce Power Systems AG. "To date, there is no other high-speed engine in this performance class that runs purely on methanol. We are investing specifically in future technologies in order to open up efficient ways for our customers to reduce CO2 emissions and further expand our leading role in sustainable propulsion systems."

Rolls-Royce's ambition is to offer customers efficient ways to reduce their CO2 emissions, inline with the 'lower carbon' strategic pillar of its multi-year transformation programme.

Tankoa Yachts acquires Otam business division

Italian superyacht builder Tankoa Yachts has completed the acquisition of OTAM's business division. The agreement, reached with the founding families, includes the Genoa shipyard and the OTAM brand. Dockyard operations in Santa Margherita Ligure remain under the ownership of OTAM's current proprietors.

The acquisition forms part of Tankoa's ongoing expansion strategy, outlined earlier in 2025. The Genoa facility comprises 4,800m^2 of covered space, 3,300m^2 of open areas, and a 10,000m^2 water basin, equipped with infrastructure and workshops. Tankoa plans to restructure and upgrade the site, extend concessions, reorganise existing areas, and construct new production sheds to support current and future operations.

Otam's Genoa facility

The transaction also brings OTAM's workforce into Tankoa, ensuring job continuity and adding technical expertise to the shipyard's team.

Record growth and innovation highlight IBEX 2025 ahead of 2026

The International Boatbuilders' Exhibition and Conference (IBEX) concluded its 2025 show in October, reporting year-over-year growth in attendance. The show brought together industry professionals for networking, education and hands-on demonstrations. IBEX 2025 welcomed 7,600 professionals from more than 70 countries to the Tampa Convention Centre.

The event featured 710 exhibitors, including 115 first-time participants. More than 70 students from South Florida marine technical programmes attended the IBEX Career Day programme, organised in partnership with the American Boat & Yacht Council (ABYC).

Mary Velline, IBEX show director, comments: "Boatbuilding is a decentralised and diverse industry, strengthened by a global network of innovators and skilled professionals. IBEX brings that community together each year to share challenges, celebrate breakthroughs, and spark the ideas that move our industry forward."

Expedition Zero funding for marine recyclable composite material development announced

Sustainable innovation company Expedition Zero has launched a £500,000 funding round to accelerate the development of its recyclable composite material, EcoMinera, with a larger £5 million raise planned for 2026.

The £500,000 funding will cover R&D, strengthen global IP protection and finalise design work for the next generation of yachts constructed from EcoMinera. The larger funding raise in 2026 will finance further acquisitions and investment in production capacity, positioning Expedition Zero as a leading supplier of sustainable composites for marine and related industries.

According to Expedition Zero, EcoMinera is stronger and stiffer per kilogram than fibreglass, water-repellent, fire-resistant and delivers up to 90 per cent lower environmental impact across the full life-cycle than fiberglass. The material has already been used in multiple yachts, including a 60ft ocean racing vessel that has completed more than 20,000 miles of testing, demonstrating both performance and scalability.

Expedition Zero previously announced a strategic joint venture with Innovation Yachts to bring EcoMinera to market, Andrew Cowen, co-founder and CEO of Expedition Zero, says: "We're really excited to work alongside Innovation Yachts, our design and build partner on the launch of EcoMinera. This material is the culmination of many years of intensive R&D by Innovation Yachts, who have proven it's a remarkable, better performing and more sustainable alternative to fibreglass.

Expedition Zero began as an adventure sailing initiative, working alongside Innovation Yachts to develop sustainable expedition sailing yachts for commercial operations. The company has since pivoted to focus on materials innovation, developing solutions to the environmental and economic problems caused by fiberglass.

Shackleton's ship may have sunk because of weak internal framing

Sir Ernest Shackleton's famed ship, the Endurance, may have gone down because of inadequate internal framing, according to a new study by Finnish researchers.

Endurance was built for tourist-oriented hunting expeditions in icy Arctic waters, with thick planking and double framing of oak and fir. Her bow was more than 50 inches thick.

While heavily built by comparison to everyday ships, Endurance was not designed for operations in thick pack ice. Roald Amundsen's vessel, the Fram, had a canoe hull that was intended to rise up under ice pressure, not to get sandwiched and crushed; Endurance's crew found that their ship's hull shape was more liable to getting stuck. According to the new study, her internal bracing was also less sturdy than Fram's, particularly in way of the engine room. The hull design had not been conceived to resist heavy horizontal pressure for months at a time, as occurs when trapped in pack ice, and her engine room was larger and more open than other polar ships.

"The weakest part of its hull was the engine room area, which was not only larger than in other early Antarctic ships but also lacked beams to give strength against compression by ice. Comparison with other wooden polar ships is not favourable for Endurance: ships designed for compressive pack ice were stronger," concluded Jukka Tuhkuri, a naval architect and researcher.

IMO's World Maritime Day 2025 theme highlighted shipping's role in protecting the oceans

World Maritime Day 2025 was celebrated worldwide with this year's theme, chosen by the IMO, 'Our Ocean, Our Obligation, Our Opportunity'. It highlighted the importance of oceans and seas and our role in protecting them. The oceans are a source of life, livelihoods and global maritime trade, which sustains economies. They also regulate the climate and support millions of flora and fauna, said their press release. It continued, however, the oceans are under threat due to human activities and resulting pollution. As the biggest sector operating in the oceans, shipping has a major responsibility in safeguarding the marine environment. The International Maritime Organisation, through its regulatory framework and several programmes for its 176 member states, paves the way for cleaner, safer seas.

To mark the event, IMO Headquarters was lit in blue light during the evening.

Royal Huisman stun Monaco Yacht Show visitors with concept wing-sailed superyacht

At the Monaco Yacht Show, Royal Huisman unveiled Aera, a 50m (164ft) concept superyacht packed with edgy technologies such as a wing sail and fuel cell energy. Aera is another breakthrough for the Dutch shipyard, celebrated for building the world's first hybrid superyacht.

It features a Rondal wing sail, a retractable propulsion system, Rondal captive mooring winches, an energy storage system comprising compressed hydrogen, a fuel cell, and batteries, Rondal hydro generators, variable-speed generators, HVO biodiesel fuel tanks, and laser exterior lighting.

A wing sail mimics the shape and function of an airplane wing to harness wind more efficiently than traditional sails. It is a variable-camber, aerodynamic structure mounted in place of conventional fabric sails. Designed like an airplane wing, it produces lift on either side depending on wind direction. A wing sail offers better performance in all wind directions, especially when reaching on beam and downwind courses.

Swedes call for stricter boating rules in recent survey

The most recent Swedish boating survey was published by the Swedish Transport Agency in September 2025, showing growing support for safety measures including mandatory driver's licenses and age limits for fast boats, with 84% in favour of an age limit and 60% supporting a mandatory licence.

The survey also indicated increasing safety consciousness among Swedes, with 72% believing life jackets should be mandatory. The Swedish Transport Agency has conducted these surveys every five years to understand boating habits, environmental impacts, and public opinions on boating regulations.

Key findings

- Safety Measures: There is growing public support for stricter regulations on the water, with 84% of respondents in favour of an age limit for fast boats and 60% supporting a mandatory driver's licence for recreational boats.
- Life Jacket Use: 72% of respondents believe that wearing a life jacket should be a legal requirement, an increase from previous surveys.
- Increased Safety Consciousness: The survey highlights a general trend of increased awareness and concern for safety among Swedish boaters.

US Coast Guard to invest $350m in robotics and autonomous systems

The US Coast Guard will invest nearly US$350 million to expand robotics and autonomous systems, strengthening mission execution and operational capabilities, the coast guard has confirmed.

The funding, provided under the One Big Beautiful Bill Act (OBBBA), includes US$11 million in fiscal year 2025 for immediate upgrades to what the coast guard said are critical autonomous systems.

Initial investments include: US$4.8 million to procure 16 VideoRay remotely operated vehicles (ROVs) to replace the deployable specialised forces' ageing fleet; US$2 million to procure six Qinetiq "squad packable utility robots" (SPURs) and 12 mini-SPUR robots to replace outdated unmanned ground vehicles (UGVs) at strike teams; and US$4.3 million to purchase 125 SkyDio short-range unmanned aircraft systems (SR-UAS).

Garmin launches wireless MOB and engine cutoff system

Garmin has introduced the Garmin OnBoard system, a wireless man overboard (MOB) detection and engine cut-off solution designed to enhance onboard safety by integrating with Garmin chartplotters.

The firm says the OnBoard system replaces traditional tethered cords with wireless technology and complies with US federal requirements for engine cut-off links.

Each tag can be worn on a wristband, carabiner or key ring float and designated as either captain or passenger. If an MOB event occurs, the system records a waypoint on the chartplotter and triggers an audible alarm. If the captain falls overboard, the system automatically cuts the engine. A button on the tag also allows the captain to disable the engine manually if required. Up to eight tags can be connected at once to cover multiple users or objects.

"Wearing an MOB tag that can activate an engine kill switch on a boat can potentially save lives. As part of our commitment to making boating safer and more enjoyable for everyone, we designed Garmin OnBoard with safety and convenience in mind using wireless, non-intrusive tags that will bring the boat to a stop and alert those on board if an MOB event is detected," says Susan Lyman, Garmin vice president of consumer sales and marketing.

Catalina Yachts pauses production amid 'financial challenges'

Catalina Yachts has paused production to "reorganise its operation." The US boatbuilder, which was established in 1969 and acquired by Michael Reardon in May 2025, is known for producing cruising and performance sailboats.

In a statement, Patrick Turner, president of the Florida-based shipyard, says the "temporary production pause" is being implemented while the company reorganises key areas of operation.

"I want to share an important update directly with those who matter most to this company – our owners, future owners and the broader sailing community that has supported Catalina for more than 50 years," says Turner. "We have initiated a temporary production pause while we reorganise key areas of our operation. Like many manufacturers in today's environment, we are navigating short-term financial challenges.

"Rather than pushing ahead in a way that could compromise quality or consistency, we have chosen to take a responsible pause while we finalise the support needed to move forward stronger.

"This decision reflects our commitment to Catalina's long-term health – not just the next boat out of the factory, but the thousands that already exist and the many more still to come."

Boating Technology Day highlights pathways for innovation and sustainability

At this year's HISWA te Water Boat Show in the Netherlands, ICOMIA's Marine Engine Committee (IMEC) hosted its second Boating Technology Day, drawing a global audience of marine industry leaders, innovators, and policymakers. The event offered valuable insights into the technologies, fuels, and strategies shaping the future of recreational boating. Europe is considering changes to the Recreational Craft Directive, so the timing of this event was important.

The morning program at the Museum Batavialand featured presentations on ICOMIA's latest global initiatives, including updates on the Propelling Our Future campaign, progress on the Global Lifecycle Assessment (LCA) project, and developments in strategic maritime fuels (SMF) and other decarbonization solutions. Attendees also reviewed advancements in reducing evaporative fuel emissions in the U.S., an effort that could inform harmonized standards and create a more consistent regulatory framework for boat builders and engine manufacturers worldwide.

New superyacht law firm launches in London and Hong Kong

Teji | Cowie Superyacht Lawyers has launched with offices in London and Hong Kong. The new specialist law firm focuses on legal matters within the superyacht sector. The firm has been founded by lawyers Antony Cowie and Alex Teji, who bring a combined 40 years of experience in maritime, corporate and finance law. They advise superyacht owners and industry stakeholders worldwide, including in Europe, the Middle East, Asia, Australia, New Zealand and the US.

Alex Teji

Antony Cowie

Teji | Cowie says it provides legal services for clients involved in new build contracts, sales and purchases, yacht financing, charter agreements, ownership structures and corporate disputes. The firm also offers guidance on local regulations and cultural requirements relevant to superyacht transactions.

Teji adds: "Over the last three decades, both the superyacht and legal industries have developed and matured significantly. Clients require an efficient, streamlined service from their trusted advisors; ultimately, they want to know who to pick up the phone to, a lawyer who will both challenge and advise with transparency; a right-hand who they know they can trust to have their best interests as their sole focus. Having listened to our clients, we have launched Teji | Cowie for exactly that purpose."

Port Denarau Marina expansion adds Fiji's first megayacht berth

Port Denarau Marina has completed a $6m expansion that includes Fiji's first 'megayacht' berth, capable of accommodating vessels up to 115 metres. The four-month project has added seven berths in total, marking the South Pacific's first facility of this kind and expanding Fiji's capacity to host large vessels.

The development centres on a 208-metre jetty extension, with dredging carried out to deepen approach channels and turning basins to support safe navigation.

PDM Board chair, Malakai Naiyaga, says: "This is more than infrastructure – it is a forward-looking investment in Fiji's future as the leading superyacht destination in the South Pacific. It enables us to welcome the world's most prestigious vessels while generating local jobs, supporting marine tourism, and strengthening our position on the global stage."

Indonesia's first international marina officially gets new name

PT Marina Development Indonesia (MDI) and PT Pelabuhan Indonesia (Pelindo) have officially unveiled the name of Indonesia's first international full-service marina as Bali Gapura Marina. The facility, currently under construction following a groundbreaking on 22 May 2025, is expected to offer 180 berths – including superyacht capacity – by Q3 2026.

The project is seen as a significant step for Indonesia's superyacht and yachting tourism sector, potentially paving the way for additional world-class marinas in the region. Industry analysts note that Indonesia's extensive coastline and archipelagic geography present considerable opportunities for marina tourism development, with Bali Gapura Marina positioned as a pioneering initiative in this sector.

"Through strong collaboration between government and the private sector, Bali Gapura Marina is set to become Indonesia's first international full-service marina," said Arif Suhartono, president director of PT Pelabuhan Indonesia. "To further strengthen Indonesia's maritime infrastructure while unlocking the vast potential of our tourism industry, Pelindo remains open to explore and develop other world-class marinas, within Indonesia archipelago. This reflects our long-term vision to elevate Indonesia's standing as a premier maritime and tourism hub in the region."

Marine archaeologists salvage artifacts from Titanic's sister ship

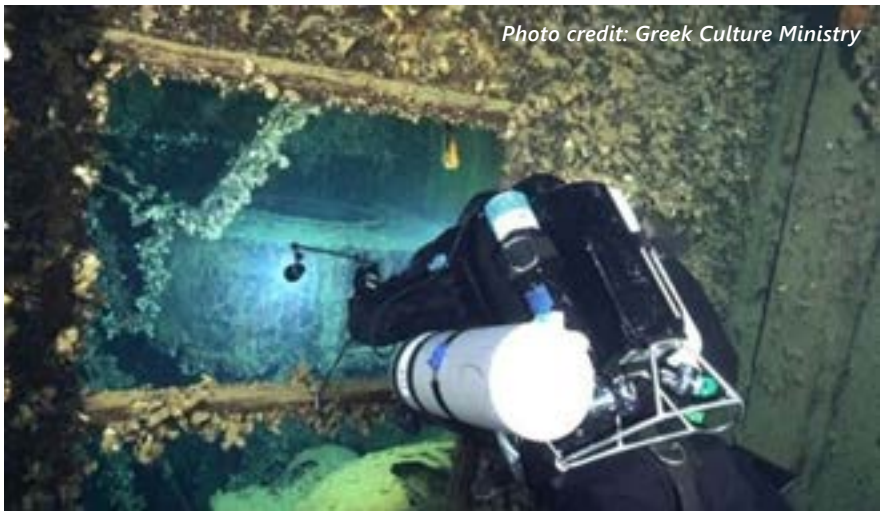


Photo credit: Greek Culture Ministry

Marine archaeologists in Greece have recovered artifacts from the wreck of the HMHS Britannic, a sister ship of the Titanic and the largest vessel lost during the First World War. Britannic was built at Harland & Wolff at the height of WWI and delivered in late 1915. While she had been ordered as a passenger ship, but she was immediately pressed into service as a hospital ship in Royal Navy service, requisitioned for transporting casualties of the costly and ultimately unsuccessful Gallipoli campaign.

She made three voyages, including the evacuation of the Dardanelles in January 1916. After that, she was paid off and dispatched to Belfast for a refit as a passenger liner - but was immediately recalled to duty in the middle of the conversion and dispatched to the Mediterranean again for an additional two voyages as a hospital ship.

Her design was modified to benefit from the safety lessons of the Titanic's sinking, including a double hull in way of the engineering compartments and raising up her watertight bulkheads another six decks. The revised design was intended to keep the vessel afloat with six compartments flooded. In the event of an abandon-ship scenario, she carried extra lifeboats and could in theory reposition them from one side to the other to enable full launch with a heavy list. But these changes were not enough to save her from meeting the same fate as Titanic. The Britannic's career only lasted about 11 months in total: on the morning of November 21, 1916, she hit a German mine in the Kea Channel in the Cyclades. There were no patients on board, just the normal crew complement of 674 seafarers and 392 medical staff.

Britannic lay on the bottom in shallow water, her position unknown until 1975, when she was rediscovered by Jacques Cousteau. This year, in May, a British team of archaeological divers revisited the site to conduct a recovery operation, with support from Greek authorities. Despite challenging site conditions, they resurfaced historical artifacts from the wreck, including ceramic tiles, cabin fittings, a navigation lamp, a bell, and a passenger's personal binoculars.

Morocco celebrates expansion milestones in Casablanca port complex

As Morocco pushes ahead with expansion of its maritime infrastructure, the country has launched several development initiatives in Casablanca port complex. The launch event was presided by King Mohammed VI, who is keen to position Morocco as a global maritime hub.

The Casablanca port complex expansion project is valued at around $577 million. This involves renovation of a fish port, construction of a new shipyard and expansion of the cruise terminal. A new office complex is also underway, with Casablanca aiming to house port stakeholders under one roof. The fish port project is valued at $120 million, an investment targeted at expanding Morocco's fish processing capacity and export volumes. The fish port is expected to accommodate 260 artisanal fishing boats and about 100 coastal fishing vessels. The port will also have ice generators, modern fish market and offices for shipowners.

An important highlight of the launch event is King Mohammed VI's tour of the new Casablanca port shipyard. In a speech in 2023, the King directed for development "of a strong, competitive, national commercial marine fleet." As a follow-up measure, a Moroccan public think-tank - the Economic, Social and Environmental Council (CESE) - last year opened a public consultation for Morocco's national shipbuilding roadmap.

King Mohammed VI of Morocco visits Port of Casablanca

Peter Busfield announces retirement after 30 years of service to the NZ marine industry

After three decades of dedicated service to the marine industry, Peter Busfield has announced his retirement. He will officially step down from his role on 31 March 2026, closing a remarkable chapter marked by leadership, commitment, and influence across the sector.

While Busfield will transition away from his full-time responsibilities, he will continue to share his expertise on a contract basis through to the end of 2026, ensuring a smooth handover and continuity for the organisation.

The NZ Marine Board of Management and the NZ Marine Executive acknowledged Busfield's outstanding contribution, noting that his leadership and the achievements of his team have left an enduring impact on the industry as a whole.

"Peter's vision and dedication have been instrumental in shaping the direction of our sector. His efforts have strengthened not only NZ Marine but also the broader marine industry in New Zealand and beyond," the Board said in a statement.

Denison Yachting and OneWater Group announce merger

Denison Yachting and OneWater Yacht Group announced they are joining forces to create the largest yacht firm in the world. Operating with the same leadership but under the Denison Yachting brand, the combined company will have a network of 23 offices across the United States and Europe, delivering an unmatched client experience in the buying, selling, and ownership of luxury yachts worldwide.

Through the completed deal, Denison Yachting's portfolio expands to include Absolute Yachts, HCB, Riviera, Prestige, and Belize Yachts. In addition, the company became the largest Sunseeker dealer worldwide, further strengthening its position as a global leader.

The combined organization will feature more than 800 active yacht listings supported by 180 experienced yacht brokers, offering clients more opportunities than ever before. As a publicly traded company, the group will continue to prioritize transparency, innovation, and client trust. Most importantly, the merger was designed with clients at its core: to deliver a safer, more seamless, and more enjoyable yacht-buying and selling experience. By leveraging industry-leading technology, marketing, and full-service offerings, including new yacht sales, brokerage, charter, management, crew placement, and after-sales service, the combined entity will provide unparalleled value to yacht owners and enthusiasts worldwide.

UK funds project to evaluate and advance ammonia adoption

The Project FASTMOVE has received funding through the Department for Transport's UK SHORE, to assess and study ammonia as a future fuel for the maritime sector. Ammonia as a future fuel for the maritime sector, is to be assessed by Ricardo, Brunel University of London and the Port of Cromarty Firth, as part of a feasibility study that aims understand how the fuel could support the decarbonisation of the sector and a concept for a next-generation ammonia combustion engine.

Project FASTMOVE is funded by UK Government through the UK Shipping Office for Reducing Emissions (UK SHORE) programme in the Department for Transport. UK SHORE has allocated over £230m since 2022 to over 247 projects, leveraging over £107m private investment. The partnership will evaluate the feasibility of four-stroke ammonia-fuelled marine engines in offshore support vessels, as a route to emission reduction targets, and position the UK as the market leader in this field with the combustion system.

Key project features include:

- Assessing the opportunity of ammonia for decarbonisation of vessels using Port of Cromarty Firth.
- Developing further understanding of high-pressure dual-fuel ammonia combustion.
- Developing a next generation combustion system concept that maximises the ammonia substitution rate while minimising pollutant emissions.
- Assessing port and vessel safety considerations.

The project will conclude in Spring 2026.

MDL Marinas celebrates dual win at Maritime Solent Awards 2025

MDL Marinas has won two titles at this year's Maritime Solent Awards, taking home both the Clean Maritime Innovator and Sustainability Leadership awards.

The double win recognises MDL's continued commitment to environmental progress across its network of marinas and boatyards. Over recent years, MDL has implemented a series of major initiatives to reduce its environmental impact, led by head of property infrastructure Steve Russell.

Tim Mayer, sales and marketing director at MDL Marinas, explains: "Sustainability isn't just a goal for MDL – it's a responsibility we take seriously across every marina, every project and every partnership we're involved in."

BRITISH PORTS ASSOCIATION

Over £4.5 billion investments in UK port infrastructure

The British Ports Association (BPA) has published its UK Ports Investment Showcase 2020–2025, highlighting more than £4.5 billion of verified investment in port infrastructure and equipment across the country over the last five years. According to BPA, ports are buying kit, extending capacity and electrifying operations so the UK can move more, faster, and cleaner. This is happening everywhere: offshore wind hubs in Scotland, new container capacity on the Humber, and upgrading the cruise passenger experience on the South coast. In particular the ports are:

- Driving Net Zero: through shore power, clean fuels, and electrified cranes and vehicles.
- Boosting trade: by deepening channels, extending terminals and installing new handling equipment to move goods faster and more reliably.
- Creating growth: with thousands of construction jobs today, and high-value logistics, manufacturing and offshore wind opportunities tomorrow.

BPA research found that ports have invested:

- At least £4.5 billion investment in infrastructure and assets between 2020 – 2025
- At least £6 billion invested in wider port estates (such as new warehousing for logistics firms, offshore wind cable factories, etc.)

"Ports are backing themselves with billions of pounds to stay competitive, cut emissions, and support national growth. This is more than quays and cranes, it's about building the infrastructure for Britain's economy and supporting the industries of tomorrow," said George Finch, Policy & Economic Analyst at the British Ports Association.

UK marina to undergo major redevelopment

Newhaven Marina on Britain's south coast is to undergo a major redevelopment, although the level of investment is undisclosed.

Hamble-based Marina Projects Ltd, which has managed the 300-berth facility for several years, has been appointed to secure the necessary licenses for the works. The marina is owned by Brighton-based property group Baron's Bay Ltd.

Lewes District Council has approved plans to regenerate the site, which will include 400 riverside homes, a 50-bedroom apartment hotel with a gym, and a range of restaurants and cafés.

The existing 300-berth marina will be completely reconfigured to provide significantly enhanced facilities for berth holders and visiting yachts. This latest phase will complete the transformation of Newhaven's western waterfront.

Heysham Port to launch UK's first Green Shipping Corridor

NatPower Marine and Peel Ports Group has begun installing shore power at Heysham port with the first plug live in phase one and four plugs across all berths by 2026, enabling zero-emission Irish Sea ferry routes and supporting full vessel electrification. The project is part of a £100m partnership to deploy e-ship charging infrastructure across Peel Ports' network. NatPower Marine, which estimates shipping decarbonization will require 4 PWh of clean energy annually, plans a global charging network at 120 ports by 2030 and recently launched Wah Kwong NatPower, a JV targeting shore power projects in Asia.

Parliamentary Group hears urgent evidence on climate change impacts to UK waterways

Under the secretariat of the Inland Waterways Association (IWA), the All-Party Parliamentary Group (APPG) for the Waterways convened to hear expert evidence from the Canal & River Trust (CRT) and the Middle Level Commissioners (MLC) on the growing impact of climate change across the nation's waterways.

Members heard that changing rainfall patterns in the Middle Level are affecting vegetation management, while reduced water flows in the River Nene, combined with sea-level and bed-level rises, could prevent boats from entering or leaving the system. Flooding and coastal surge risks are also increasing, leaving low-lying areas vulnerable. Responsibility for these regions lies primarily with the Environment Agency (EA), but navigation authorities are operating under mounting financial pressures.

The session highlighted that while waterways are among the first to experience the effects of climate change, they can also be part of the solution through adaptation, mitigation, and enhancement of the natural environment in pursuit of net zero.

A major theme of the discussion was the question of funding, with Defra's settlement for the Canal & River Trust reduced at a time when climate-related infrastructure costs are rising sharply.

2025 Marina of the Year Awards winners announced

The UK's Yacht Harbour Association (TYHA) announced the winners of its Marina of the Year Awards 2025 at the Southampton International Boat Show last week. The awards highlight excellence among Gold Anchor accredited marinas in the UK and internationally, recognising standards in customer service, facilities, environmental management, and staff performance.

2025 Winners and Runners-Up

Coastal Marina of the Year (under 250 berths): Poole Quay Boat Haven. Runner-up: Emsworth Yacht Haven

Coastal Marina of the Year (over 250 berths): Boatfolk – Royal Quays Marina. Runner-up: Jersey Marina

Inland Marina of the Year: Shepperton Marina. Runner-up: Overwater Marina

International Marina of the Year: Setur Antalya Marina, Turkey. Runner-up: Portonovi Marina, Montenegro

Superyacht Marina of the Year: Marina de Vilamoura, Portugal. Runner-up: Yalikavak Marina, Turkey

Sustainable Marina of the Year: Boatfolk – Haslar Marina. Highly Commended: Dubai Harbour & Parkstone Bay Marina

Employee of the Year: Ian Shakespeare, Cowes Yacht Haven. Runners-up: Lucas Alcon (Puerto Sherry), Mikey (Shepperton Marina), James Cook (Royal Quays), Alican (D-Marin Turguteris), Barry Goodman (Ipswich Beacon Marina), Adrian Warrington (Marina di Valletta), Gareth (Aqueduct Marina), Rebecca Reynolds (Tingdene Brundall Bay), Harry Darrah (Emsworth Yacht Haven)

Overall Marina Team of the Year: Jersey Marina

Royal Seal of Approval for Boat Building Academy

Princess Anne enjoyed tours of the Boat Building Academy's workshops recently, meeting students of the 40-week boat-building course and 12-week furniture courses, including a number who had been awarded bursaries to enable them to attend.

Her Royal Highness, who is Patron of The National Transport Trust, also unveiled a Red Wheel plaque, awarded by the trust in recognition of the academy's important role in Britain's transport and industrial heritage. She also enjoyed a demonstration of steam bending by assistant tutor Samuel Robinson and current boat-building students Hannah Blake and Eleanor Snape. Steam bending involves making wood pliable by exposing it to steam and then bending it to a desired shape. It is used extensively in wooden boat building, most importantly in forming the ribs of boats. Princess Anne assisted in helping to hold the wood while it was secured for bending.

Photo credit: Phillipa Gedge Photography

Boat Building Academy Director Will Reed said: "This visit comes at a critical time as we prepare to launch a campaign to buy the freehold of our building and in doing so secure the future of the academy and strengthen the future of the UK boat building industry."

Canal & River Trust Annual Report & Accounts 2024/25 published

The UK Canal & River Trust, the charity that cares for 2,000 miles of waterways across England and Wales, has published its Annual Report for 2024/25 which sets out the scale of work undertaken to safeguard the nation's historic canals and their modern-day contribution to society.

Over the year, and in the face of the rising cost of materials, additional environmental regulation and more extreme weather events, the Trust delivered wide-ranging maintenance to care for the canal network whilst prioritising the service the charity provides to boaters and local communities.

More than £60 million was invested in winter maintenance across more than 200 projects, from installing 135 new handcrafted lock gates, to major inspections at landmark sites and repairs to centuries-old bridges, tunnels and wash walls. A further £21 million was spent upgrading 22 of the charity's 74 large, raised reservoirs.

Alongside this, the Trust introduced its Better Boating Plan, developed with boaters and backed by £3 million of targeted investment to improve navigation. The charity's dredging programme removed over 60,000 tonnes of material and improved over 40 miles of waterway, while over 6,800 tonnes of waste were collected, of which 98% was recycled or recovered through waste to energy.

Download the report at **https://bit.ly/3L9hMRO**.

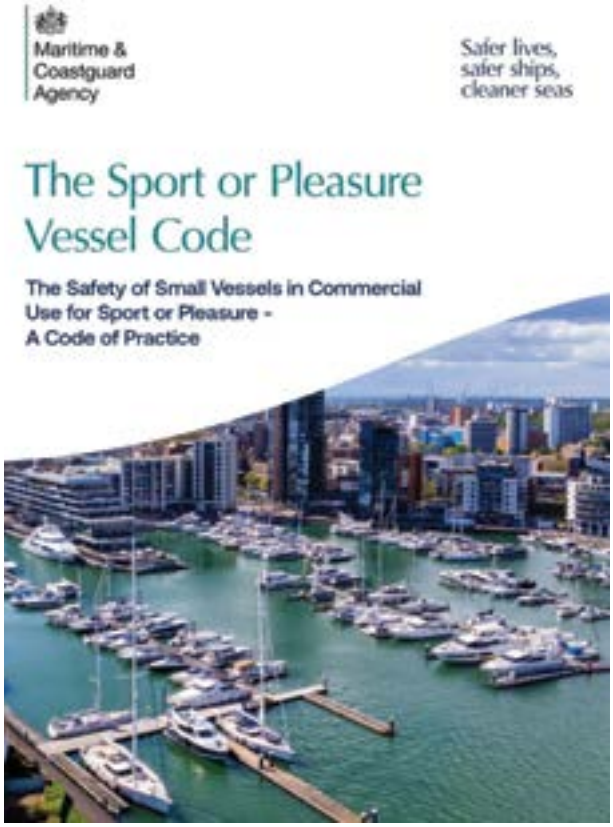
Photo credit: Andrew Cooke

Steam heaven as Shieldhall marks 70th year with a Waverley rendezvous

On a Saturday in September, two Glaswegian icons took to the Solent in the UK, showcasing the power and beauty of steam from yesteryear. The event was a culmination of celebrations staged to mark the 70th anniversary of Southampton's Steamship Shieldhall, and which saw her meet up with the Paddle Steamer Waverley and 'steam together' for approximately an hour.

The two ships have a combined age of 148 years, and there was high demand for tickets to board both Clyde-built vessels, with the sail together giving passengers on each vessel the ideal viewing platform to watch and wave to the other.

By 16.00 Shieldhall was in position setting a straight course from the Solent Forts due west. Waverley, having been off Bembridge on the far east of the Isle of Wight, came steaming up at full speed. With her passengers all on deck to see Shieldhall Waverley duly announced her arrival at the event with Shieldhall responding in similar fashion.



MCA publishes new Sport or Pleasure Vessel Code

The Sport or Pleasure Vessel Code consolidates previous regulations into a single, clear framework, ensuring safer operations at sea while supporting innovation in vessel design and propulsion.

Application of the new requirements will be phased in from 12 December 2025.

To help owners and operators prepare, here are some frequently asked questions answered by a range of MCA policy experts.

1. What is the Sport or Pleasure Vessel Code?

The Sport or Pleasure Vessel Code is a comprehensive set of safety and compliance requirements for small vessels under 24 metres in commercial use for sport or pleasure, operating at sea, carrying no cargo and no more than 12 passengers.

It is enabled by the new Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 2025, which also underpins a second, existing Code of Practice for Yachts over 24 metres (the REG Yacht Code).

2. Why was a new Code introduced?

The technology and practices of vessels in commercial use for sport or pleasure have changed considerably over the years. The new Sport or Pleasure Vessel Code provides a single, modernised standard aligned with current technology, safety practices and environmental considerations.

It consolidates and replaces previous Codes (Yellow, Blue, Red, and Intended Pleasure Vessel Codes) and Marine Guidance Note (MGN) 280 for sport or pleasure vessels.

3. Who does the Code apply to?

The Code applies to UK-registered small vessels in commercial use for sport or pleasure, and to non-UK vessels operating from UK ports while in UK waters.

The regulations define what a 'pleasure vessel' is but do not specifically define 'commercial'. "Commercial use" doesn't solely mean profit-making business operations. A vessel is considered to be operated commercially if it does not meet the definition of a pleasure vessel.

4. What types of vessels are excluded?

The Code does not apply to vessels operating underwater, hovercraft or vessels carrying cargo – even if they are in commercial use for sport or pleasure.

Other codes cover these types of vessels. For example, rescue boats follow the Rescue Boat Code and work boats follow the Work Boat Code.

5. When does the new Code come into force?

The Code enters into force on 12 December 2025. It applies to vessels whose keels are laid, or which are at a similar stage of construction, on or after that date.

Existing vessels will transition at their next scheduled renewal examination or within three years, whichever is longer. It means owners and operators have time to familiarise themselves with requirements.

6. What are the main changes compared to previous Codes?

Changes include:

- a single consolidated Code for all vessels in commercial use for sport or pleasure.
- updated technical standards for construction, stability and equipment.
- provisions for hybrid and electric propulsion systems.
- clearer requirements for examinations and certification.
- enhanced safety management and risk assessment obligations.

7. How does the Code affect existing vessels?
Existing vessels with valid certificates can continue operating under transitional arrangements but must comply with updated requirements at renewal of certification, modification or within three years, whichever is longer.

8. Has the MCA consulted with owners and operators about the new Code?
The changes follow at least two years of discussion between the MCA and commercial operators, manufacturers and industry bodies. The regulations were subject to a 12-week consultation, whose launch was rescheduled to 4 December 2024 to ensure stakeholders were able to contribute further to the consultation documents. A post-consultation stakeholders' conference was hosted by the MCA on 15 May 2025.

9. What are the Code's area categories of operation?
The Code defines six area categories of operation, with different certification requirements for vessel design and equipment depending on the distance from a safe haven.

The greater the distance from a safe haven the vessel is operating, the more self-sufficient and resilient the vessel is required to be:

Category 6: within 3 miles of land and not more than 3 miles radius from either the point of departure to sea or the seaward boundary of categorised waters, in favourable weather and daylight.
Category 5: within 3 miles of land and not more than 3 miles radius from either the point of departure to sea or the seaward boundary of categorised waters in favourable weather.
Category 4: up to 20 miles from a safe haven, in favourable weather and in daylight.
Category 3: up to 20 miles from a safe haven.
Category 2: up to 60 miles from a safe haven.
Category 1: up to 150 miles from a safe haven.
Category 0: unrestricted service.

10. How is compliance enforced?
Compliance is verified through surveys and certification by the MCA or authorised Certifying Authorities. Certificates are valid for up to five years, subject to annual and intermediate examinations.

11. What happens if a vessel operates outside UK waters?
UK certificates may not be recognised abroad. Owners must check local requirements and may need additional certification. Guidance is available in MGN 416 (M) Amendment 1: Small commercial vessels operating in foreign waters.

12. Does the Code cover sports activities like diving or angling?
The Code focuses on vessel safety, not the specific sport or activity. Operators must also comply with any additional safety requirements set by relevant sporting bodies.

The Code sets out requirements to ensure the safety of a vessel and its occupants but does not specifically prescribe requirements relating to the sport or pleasure activities carried out on or undertaken from that vessel. Such activities may be subject to additional specific safety requirements, prescribed by the relevant water-based recreational organisation.

Activities which are in scope of the Code include:

- vessels engaged in racing and as race support boats.
- high-speed craft carrying passengers on sightseeing trips.
- vessels operating as beachcraft in commercial use i.e. personal watercraft.

13. Are operators and owners now banned from light-duties work boat opportunities? No.
Although the draft regulations did not specify small vessels in commercial use for sport or pleasure being able to carry out light duties as work boats, the Code now reflects the correct legal position of requiring certification under The Merchant Shipping (Small Workboats and Pilot Boats) Regulations 2023 and the applicable parts of Workboat Code Edition 3 where the rules are properly laid out.

14. Where can vessel owners find more information?
The full Code, supporting guidance, and related Merchant Shipping Notices are available on the MCA website.

More information is available from the UK government's website where the new code can be downloaded. Go to **https://bit.ly/43Eou8J**.

Tritex NDT Multiple Echo Ultrasonic Thickness Gauges

The Drone Thickness Gauge
Multigauge 6000

The Underwater Thickness Gauge
Multigauge 3000

The ROV Thickness Gauge
Multigauge 4000

The Surveyors Thickness Gauge
Multigauge 5650

Tritex NDT specialize in the manufacture and supply of Multiple Echo Ultrasonic Metal Thickness Gauges, used for verifying corrosion levels and measuring metal thickness from one side only, without removing any protective coatings. The Multigauge 5650 Surveyor Gauge can measure both metal and GRP, in one gauge, and also switch from Multiple Echo to Echo - Echo with the simple press of a button, using the same probe.

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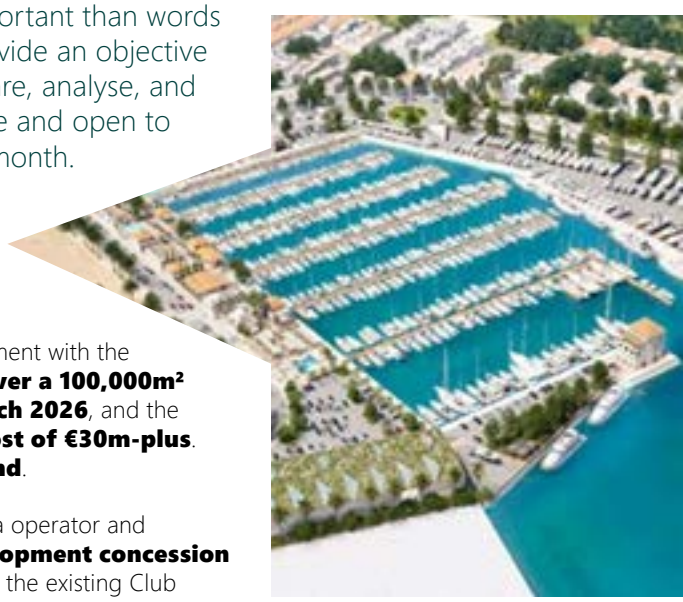
Shipping and Boating by Number

In this feature, numbers are used to highlight the key points of the stories. Numbers are often considered more important than words when conveying precise information, as they provide an objective way to represent data, making it easier to compare, analyse, and understand facts quickly. Words can be subjective and open to interpretation. Here's what we have for you this month.



Construction of **new 700-berth Spanish marina** to begin next year

The Costa Tropical in southern Spain is to undergo a redevelopment with the construction of Marina Motril, a **700-berth facility spread over a 100,000m² repurposed site**. Construction is scheduled to **begin in March 2026**, and the marina is due to **open by spring 2028** at a total estimated **cost of €30m-plus**. The marina **will have 450 berths on water and 250 on land**.

Marina Motril SL, a joint venture between the current dry marina operator and Granada-based Grupo Cuerva, was **granted a 49-year development concession** to operate the site in **December 2023**. The project will replace the existing Club Náutico and dry marina in Motril's port.

Granada's coastline currently has **just 427 mooring points** between **Marina del Este (227)** and **Club Náutico de Motril (200)**. Marina Motril will more than double this capacity, ending decades of stagnation since the **last major development in 1988**.

The Mediterranean-Nazarí inspired design includes:

- A **21,000m² varadero with two travelifts (110 and 450 tonnes)**, making it the largest yacht repair yard in the southern Mediterranean
- **15,000m² commercial village** with retail and dining
- Zoco-inspired market with water features
- Underground **car park (600 spaces)**

Aula del Mar marine research facility (University of Granada partnership)
Marina Motril will be powered by renewable energy as part of Green Motril, Cuerva's on-site energy community initiative. The project converts underused land into activated waterfront while preserving marine ecosystems. No new sea inlet will be created, minimising ecological disruption.

Genoa boat show highlights

The **65th Genoa International Boat Show** closed with improved participation on last year. Over six days, the **event drew 124,248 visitors, up 2.8 per cent on 2024**, with more **than 1,000 boats** on display. Exhibitors included **23 new yards and companies from 45 countries**.

The exhibition also **hosted 123 new products, 96 of them world premieres**. Alongside the displays, **132 conferences and events were staged**, supported by the European Commission's Forum25 programme. Sea trials proved particularly popular, with **4,050 outings carried out**.

Show organisers report the show attracted strong media attention, **with 1,245 accredited journalists**, nearly **4,800 published articles**, and more than **2.5m views** of the show's Facebook and Instagram pages.

CDK Technologies: **8.5 million euros investment** in Lorient to double production capacity

CDK Group has just **invested 8.5 million euros** in the expansion of its Lorient site, located in the ship repair area. **Two workshops of 1,500 m² each**, dedicated respectively to draping and assembly, as well as new offices, bring the **total surface area of the site to 7,000 m²**. With Port-La-Forêt and La Rochelle, the Group now has an **industrial capacity of 11,000 m²**, representing a significant increase in production capacity.

Until now, the company has had to carry out its major projects sequentially, but it can now build two Ultim trimarans and two Imoca monohulls simultaneously. This organization allows the production chain to run more smoothly, thanks in particular to air-conditioned and humidity-controlled workshops to meet the requirements of composite materials. The manufacturing process is optimized: while some parts are draped, others go through the curing process in the ovens, offering continuous rotation on the different workstations.

The 8.5 million euro deal was largely financed by Inspiring Sport Capital, CDK's majority shareholder. The aim is to ensure sustainable growth, by consolidating the company's know-how while diversifying its outlets. The group's sales, which are **expected to reach 15 million euros in 2024**, should benefit from this new production capacity, provided that the sector's main challenge is met: the availability of skilled labour.

A call to structure a French industry in search of a future

According to available figures, the **world's superyachts represent some 6,000 units over 20 meters in length, 50% of which sail off the Côte d'Azur** every year. In the South of France alone, the yachting industry **generates an annual economic impact of 2.1 billion euros, and more than 10,000 direct jobs**. *Yet only 152 yachts are registered with the Registre International Français (RIF),* which puts **France in 26th place** worldwide in terms of flags.

Thomas Kieffer, founder of Edge, a company based in Marseilles, calls for France to adopt a genuine strategy dedicated to this sector.

A regulatory framework deemed unsuitable

One of the main obstacles is the lack of dedicated legislation. The very term "Grande Plaisance" does not appear in French or European maritime regulations. As a result, professional sailors aboard yachts are not covered by any collective bargaining agreement. What's more, some yacht owners prefer to sail under "exotic" flags (Cayman Islands, Marshall Islands, Malta), encouraging social and fiscal dumping that undermines French competitiveness. Thomas Kieffer also condemns approximate accounting practices that place legal risks on shipowners, against a backdrop of rare controls.

Italian boating sector posts €8.6bn turnover

The Italian boating industry has reported an all-time high **turnover of €8.6bn in 2024**, according to figures presented at the Boating Economic Forecast conference.

Of the **€8.6bn total turnover, €2.55bn (29.7 per cent) came from domestic demand** and **€6.05bn (70.3 per cent) can be attributed to foreign markets**. Exports **accounted for 78 per cent of production (valued at €5.9bn)** and **domestic production generated €7.55bn** overall.

The report also outlined that employment in the sector **grew by 2.6 per cent**, with the industry's GDP contribution **rising to €7.4bn – 34 per cent** of national GDP.

Boatbuilding led sector performance in 2024, with **89 per cent** of Italian production for international markets. Italy also maintained its position as the world's top exporter of recreational and sports boats, **up 7.5 per cent compared to 2023**. Exports of recreational and sports boats show long-term growth, with a **405.8 per cent increase over the past 24 years**.

The US remains a key market, especially for boats **under 24 metres**, though tariff-related uncertainty has softened orders. Marco Fortis, director and vice chair of Fondazione Edison, comments on the challenges with the US: "This reinforces a clear need to diversify outlet markets and enhance the role of trade events as platforms to strengthen business development through international partnerships."

Piero Formenti, president of the Italian Marine Industry Association acknowledged that high-end yachts and the superyacht sector remain the driving force, while turnover in the small boat segment **fell around 10 per cent**. He explained, "The challenges facing this segment derive from a combination of factors, including interference in several markets from high levels of stocks, intensifying geopolitical tensions, contracting consumer confidence and a national regulatory regime that is still too stifled by red tape."

More than **£1.1 billion awarded to UK coastal towns** to boost marine green tech

Image credit: Aqua superpower

Coastal communities across the UK are set to benefit from **more than £1.1 billion in combined government and industry funding** for the maritime sector aimed at driving growth, creating jobs, investing in green tech and accelerating decarbonisation in the maritime sector.

The package, which was announced on the opening day of London International Shipping Week in September 2025, **comprises £700 million of private investment** into major ports and industry players, **alongside £448 million of government funding** targeted at cutting emissions from UK shipping. Public investment will be channelled through the UK SHORE programme, which supports the development of clean maritime technologies and alternative fuels, including electric, hydrogen, ammonia, methanol and wind power.

Since its launch, **UK SHORE has awarded £240 million across more than 200 projects** nationwide, creating an **estimated 750 jobs** and bringing a number of pilot technologies into active use.

The newly appointed parliamentary under-secretary of state for transport, Keir Mather, has visited Cammell Laird dry dock at Birkenhead in Liverpool **to see how £3.6 million of previous UK SHORE funding has driven a further £3.6 million in private investment** for the installation of a zero-emission electric shore power system.

Ellaktor Group to begin **€50m redevelopment** of Greek marina

After several years of anticipation, the Ellaktor Group is set to begin its major investment in the redevelopment of Alimos Marina in Greece during 2026.

In 2020, the Hellenic Republic Asset Development Fund (HRADF) **awarded REDS the 40-year concession** to operate Alimos Marina, with an option to extend for an **additional 10 years**. The initial five years were planned for licensing and construction activities.

The c**ontractual fee for REDS is set at €48.3m**. Ellaktor **will invest €50m** in redeveloping the marina, while the **total amount payable to the state is €57.5m – €30m upfront** and the **remaining €27.5m over time**, calculated at net present value.

The redevelopment plan allows **for a 20-month construction period**, during which Alimos Marina will be transformed into a modern hub for boating, while maintaining unobstructed visitor access. Currently the largest marina in Europe, it is located between Eden Beach and Alimos Coastal Park and is regarded as one of the gems of the coastal zone.

Once complete, the marina will be **able to host 979 vessels**, both recreational and fishing. The **land area spans 210,000m²**, designated for tourism, cultural, and leisure uses, with a total **permitted building area of 18,500m²**.

UK annual canal boaters' survey 2025

There were **1742 responses** to the Canal & River Trust survey.

The headline KPI of overall satisfaction has seen a **significant increase to 55% (+9%, 46% in 2024)**, which is now broadly in line with 2021-2023 results. The main improvement since 2024 is among liveaboard boaters (liveaboard continuous cruisers **up from 40% to 53%** and liveaboard with home mooring **up from 35% to 47%**). Satisfaction among leisure boaters is more positive overall but has seen **little change from 2024 levels (c.59%)**.

In terms of the key issues underpinning the 2024 satisfaction drop; lack of dredging, boating costs and vegetation management continue to be relatively strong negative drivers in 2025.

There are however many green shoots of recovery in sentiment compared with 2024 with a fall in negative views. **General upkeep of waterways (-6%), vegetation management (-17%)** and **engagement with boaters (-6%)** all show significant improvement. While not registering as particularly significant changes, favourability, advocacy and trust are also moving in a positive direction.

Read more in the **Executive Summary**.

REPORT bites

The U.S. Coast Guard has recommended criminal charges of seaman's manslaughter in connection with the barge collision that killed three young girls in Miami's inner harbour earlier this year.

MSC is set to reflag 12 container ships in India as the country passes new maritime regulations.

The U.S. Coast Guard announced it will invest nearly $350 million to expand robotics and autonomous systems, a move aimed at enhancing maritime operations, improving safety, and strengthening the service's ability to respond to emergencies.

The first newbuild tanker equipped with BAR Technologies' WindWings propulsion technology has completed its maiden voyage to Europe from China.

Ørsted has signed a lease agreement for up to 100,000 square meters at the Port of Tyne, one of the UK's major deep-sea ports, to support the development of its Hornsea 3 offshore wind farm.

Tokyo MOU on maintenance and rigging of pilot transfer arrangements

Tokyo MOU has reinforced an awareness of the potential risks associated with the improper maintenance and rigging of pilot transfer arrangements. Therefore, they released a guidance on maintenance and rigging of pilot transfer.

Tokyo MOU has reported that recent reports and Port State Control (PSC) inspections have highlighted recurring issues related to pilot ladders and hoist/pilot transfer arrangements, the improper rigging of pilot transfer arrangements.

In 2020, there were 197 deficiencies, and 1 detention related to pilot transfer arrangements. By 2024, these numbers had risen sharply to 523 deficiencies and 12 detentions. This significant increase is a cause for concern and underscores the urgent need for ship's crew and operators to take prompt corrective action.

Despite previous safety bulletins addressing concerns such as the use of D-shackles for securing the pilot ladders, several other issues continue to persist.

These include:

- Failure to properly secure pilot ladders and accommodation ladders to the ship's side
- Inadequate securing of stanchions with locking pins
- General complacency regarding ladder maintenance
- Lack of clear identification and differentiation between pilot ladders and other types of ladders

These repeated issues suggest a need for improved crew training and awareness regarding pilot ladders and pilot transfer arrangements. Separately, a Focused Inspection Campaign (FIC) was also carried out by the Tokyo MOU member Authorities in February 2025 on Pilot Ladders/Pilot Transfer Arrangements. During the campaign period, a total of 2,357 inspections were conducted. Three ships were detained and 176 deficiencies related to the FIC were identified on 169 ships.

Read the guidance note at **https://bit.ly/4qIsHly**.

Industry-first AI Cargo Safety Program launched

The World Shipping Council (WSC) has launched its new Cargo Safety Program – an industry-led initiative to detect misdeclared and undeclared dangerous goods.

It aims to prevent ship fires, protect crews, vessels, customers' cargo, and the marine environment.

The program combines AI-powered cargo screening and common inspection standards to identify misdeclared and undeclared high-risk shipments before they are loaded.

Ship fires are at their highest level in over a decade, according to Allianz's Safety and Shipping Review 2025. Misdeclared dangerous goods are a leading cause of ship fires, reported as responsible for more than a quarter of all cargo-related incidents.

"We have seen too many tragic incidents where misdeclared cargo has led to catastrophic fires, including the loss of life," said Joe Kramek, President and CEO of the World Shipping Council. "The WSC Cargo Safety Program strengthens the industry's safety net by combining shared screening technology, common inspection standards, and real-world feedback to reduce risk."

At the heart of the program is a digital cargo screening tool powered by the National Cargo Bureau's (NCB) technology. It scans millions of bookings in real time using keyword searches, trade pattern recognition and AI-driven algorithms to identify potential risks. Alerts are reviewed by carriers and, when needed, verified through targeted physical inspections.

The program also establishes common inspection standards for verifying shipments and an incident feedback loop to ensure lessons from real-world cases strengthen prevention. At launch, carriers representing more than 70 percent of global TEU capacity have joined the program.

Find out more at **https://bit.ly/493e0U0**.

Beware of the fire risks in scrap metal cargoes

NorthStandard P&I Club has issued guidance on the rising fire risks associated with scrap metal cargoes, particularly those coming from East Coast USA and Ghent, Belgium. They highlight the need for strict vigilance.

Scrap metal cargoes: Follow the code
'SCRAP METAL' is a bulk cargo shipping name (BCSN) found in the IMSBC Code. It is a Group C cargo but it must not contain fine metal turnings known as 'swarf'. If it does contain swarf, then it would likely fall under the schedule 'FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS UN 2793', which is a Group B cargo.

The causes of these incidents appear to be due to a combination of factors:

- The cargo is sprayed on loading: Stevedores or longshoremen may spray the cargo on load to reduce dust generation.
- The cargo is loaded during rain: Sometimes there is a request to load the cargo in rain, with shippers/ charterers offer to issue a 'rain letter' in exchange for owners agreeing to continue loading. This should be resisted as P&I cover is at risk where an owner loads or discharges a cargo in the rain in circumstances where it was entitled to refuse to do so. In such circumstances a rain letter, under which the issuer indemnifies the carrier against the consequences of loading or discharging in the rain may stand as an alternative to cover.
- The cargo contains swarf. Often there is a large proportion of swarf, cuttings, borings and shavings in the cargo which means that the cargo does not meet the requirements to be considered a Group C 'SCRAP METAL' cargo.
- The cargo contains contaminants. Typically, the cargo is contaminated with rags or timber. However, more recently in Ghent there have been more instances of lithium batteries being found in the cargo. The presence of these contaminants significantly increases the risk of fire once heated. On one occasion issues were caused by a scrap metal cargo containing gas canisters which still contained flammable gas.

REPORT bites

Swiss marine power company WinGD will introduce the world's first ethanol-fuelled two-stroke marine engine in 2026, with deliveries for newbuild and retrofit applications beginning in 2027.

Two orca incidents reported in one day off Portuguese coast, one resulting in the sinking of a yacht.

The Netherlands Enterprise Agency (RVO) confirmed that it had not received any bids in the latest offshore wind farm auction for the North Sea.

Samsung Heavy Industries has announced that it had signed a Memorandum of Understanding (MoU) with Swan Defence and Heavy Industries Limited (SDHI) to advance shipbuilding and maritime projects.

NZMOA was delighted to welcome two more marinas into the Clean Marina program as fully certified Level 3 Clean Marinas at the New Zealand Marina and Boatyard Conference. Waiheke Marina and Orakei Marina join eight other New Zealand marinas.

NTSB alerts land-based firefighters to risks of vessel fires

The U.S. National Transportation Safety Board (NTSB) has issued a safety alert urging greater awareness and training for land-based firefighters who may be called to fight fires aboard vessels in local ports.

The safety alert follows several NTSB investigations into deaths and injuries to firefighters.

The NTSB found land-based firefighters often lack the necessary training and familiarity with vessel layouts and fire protection systems to effectively fight in-port vessel fires. They also may be unaware of how to use the structural fire protection built into most commercial vessels.

NTSB recommends fire departments that serve ports improve the safety of their firefighters when responding to vessel fires by:

- Developing training plans to ensure all firefighters understand how to fight vessel fires, including the resources needed, the best tactics, strategies and methods for communicating while on a vessel and with vessel crew, and vessel layouts
- Identifying supplemental training areas and developing a training plan and operational procedures in reference to National Fire Protection Association publication 1405: Guide for Land-Based Fire Departments that Respond to Marine Vessel Fires, and NFPA 1010: Standard on Professional Qualifications for Firefighters (formerly NFPA 1005: Standards for Professional Qualifications for Marine Fire Fighting for Land- Based Fire Fighters)
- Working in advance with local ports to organize vessel familiarization tours and to coordinate vessel firefighting response preparedness and training in conjunction with the drills and exercises required for certain vessels
- Coordinating with the U.S. Coast Guard on standard operating procedures during emergencies
- Learning from the circumstances of other in-port vessel fires to improve contingency planning

The safety alert cited three vessel fires the NTSB has investigated that resulted in land-based firefighters injured due to the firefighters' lack of training in vessel firefighting.

Most recently, the NTSB investigated the 2023 fatal fire on the roll-on/roll-off container vessel Grande Costa D'Avorio in Newark, New Jersey. The Grande Costa D'Avorio was docked at Port Newark when a vehicle used by shoreside workers to push used vehicles onto the vessel caught fire on an interior garage deck. While attempting to put out the fire, two land-based firefighters were unable to find their way out of one of the smoke-filled garage decks and died. Newark Fire Division leadership directed the firefighters to actively engage the fire in the fire protection zone where the carbon dioxide gas extinguishing system had already been activated, which allowed more carbon dioxide out and more oxygen in, increasing the severity of the fire.

The NTSB found the Newark Fire Division's lack of marine vessel firefighting training resulted in an ineffective response, led to the firefighter casualties, and contributed to the severity of the fire.

Read the safety alert at **https://bit.ly/3LGJwx8**.

TSB says cracked exhaust silencer cause of fishing vessel fire

A 30cm crack along the main engine exhaust silencer led to a fire on board scallop fishing vessel Fundy Leader, according to the Transportation Safety Board of Canada (TSB).

On 06 December 2024, the fishing vessel Fundy Leader, with 13 people on board, was reported having sustained a fire 100 nautical miles southwest of Cape Sable, Nova Scotia. The crew extinguished the fire, and the vessel was escorted to Shelburne, Nova Scotia, by the Atlantic Preserver, and later by the Canadian Coast Guard ship Sir William Alexander. There were no injuries.

Origin of the fire
Data collected post-occurrence indicated that the source of ignition originated from a crack in the main engine exhaust silencer. The crack was approximately 30 cm in length and near the top of the silencer, on the side that faced the bulkhead separating the exhaust trunking from the cabin. Low-flame-spread wall panelling was attached to the wood framing on the side of the bulkhead facing the cabin.

In this occurrence, hot exhaust gases were escaping from the cracked silencer and heating up the steel on the bulkhead, which was less than 10 cm away. By conduction, the heated steel ignited the wood framing and caused the fire.

Structural fire protection
The Large Fishing Vessel Inspection Regulations require certain areas of large fishing vessels to have low-flame-spread characteristics. The Fundy Leader met the requirements of the Large Fishing Vessel Inspection Regulations for low-flame-spread characteristics.

Inspecting exhaust pipes
The main engine exhaust pipe (including the silencer) was covered with a type of lagging that could not be removed without damaging the lagging. The pipe was located next to a generator exhaust pipe. Both pipes were in a small area adjacent to the bulkhead, which meant that it was difficult to visually inspect the entire circumference of either. Exhaust trunking on fishing vessels typically provides limited access to exhaust pipes.

Large fishing vessels like the Fundy Leader fall under Transport Canada's Delegated Statutory Inspection Program and are subject to periodic inspections by recognized organizations. At the time of the occurrence, the Fundy Leader was certified by the recognized organization Lloyd's Register, on behalf of Transport Canada. Exhaust pipes and silencers may be inspected by recognized organizations for signs of damage, leaks, and degradation, but this is typically limited to a visual inspection without removing the lagging. The last inspection conducted by the recognized organization was on 15 October 2024. During this inspection, the exhaust pipes and silencers were observed to have intact lagging.

It was not possible to determine how long the crack in the silencer had been present on the Fundy Leader prior to the occurrence. Some signs of a crack in a silencer may include visible discolouration of lagging or increases in noise, exhaust odours, or heat. The master and the crew members on the Fundy Leader were unaware of the crack in the silencer before the occurrence. The silencer was original to the construction of the vessel.

Vessel exhaust pipes and silencers may pose a fire hazard in the event they sustain cracks or other failures. It is important that vessel owners and masters ensure these pipes and silencers are inspected and maintained regularly and that vessel builders design exhaust trunking and lagging to facilitate access to pipes and silencers for inspection and maintenance.

Download the report at **https://bit.ly/4qGmZkb**.

REPORT bites

Poor bridge resource management was a leading factor in the allision of the Maersk Shekou with the moored tall ship Leeuwin II in Fremantle last year, according to the Australian Transport Safety Bureau.

The Association of Canadian Port Authorities (ACPA) honoured Fritz King, the former Managing Director of Atlantic Container Line Canada, with the prestigious ACPA Medal of Merit Award at the association's annual conference in Halifax.

The U.S has earned the title of the first country to export 10 million metric tonnes of liquified natural gas in a single month.

According to a report from Danish liner consultancy Sea-Intelligence, the percentage of empty container being transported around the world has increased significantly in the past few years.

Van Oord has been awarded the IADC Safety Award 2025 during the Annual General Meeting of the International Association of Dredging Companies in Stockholm.

Jean Elaine, dive support vessel not certified for operation, says MAIB report

A dive support vessel, Jean Elaine, which grounded in the Scotland in 2024 was not certified for operation at the time of the accident said a report published by the UK Marine Accident Investigation Branch (MAIB). On 22 July 2024, the dive support vessel Jean Elaine grounded on a falling tide in Saint Peter's Pool in the Orkney Islands, Scotland. The vessel developed a severe port list and suffered water ingress. Despite efforts to save the vessel, it was ultimately abandoned. There were no injuries or fatalities.

At the time of the accident, Jean Elaine was not certified for operation and the skipper's certificate of competence had expired. Heriot-Watt University, which was using the vessel for a research project, had not verified validity of the vessel or crew certification before its use.

The investigation identified that the accident occurred due to a lack of adequate planning and ineffective communication between the skipper and research team. The incident also highlighted the importance of effective oversight, risk management, and adherence to regulatory requirements when operating vessels in support of educational or scientific activities.

In May 2019, Jean Elaine was surveyed to the requirements of Marine Guidance Note (MGN) 280 (M): Small Vessels in Commercial Use for Sport or Pleasure, Workboats and Pilot Boats – Alternative Construction Standards published by the Maritime and Coastguard Agency (MCA). The vessel was certified as an Area Category 2 workboat, permitting it to carry up to 12 passengers a maximum of 60 nautical miles from a safe haven. The certificate was valid until 28 April 2024.

On 29 April 2024, Jean Elaine was examined out of the water for the renewal of its certificate. The examination was carried out by MECAL Ltd, a certifying authority authorised by the MCA to survey and certify vessels under MGN 280 (M). The survey identified sprung and rotten hull planking (Figure 3) and the certificate held by Jean Elaine was not renewed. The suspension of certificate notice issued by MECAL Ltd to the skipper of Jean Elaine stated that, While this suspension notice is in force, the vessel must not operate commercially.

Jean Elaine did not hold a valid certificate for the voyage undertaken on the day of the grounding.

Read the report at **https://bit.ly/3Lqja2o**.

NTSB report says lithium-ion battery bank cause of yacht fire

The US National Transportation Safety Board (NTSB) has said in a report that inoperable battery management systems was the probable cause of a fire on yacht Flagship last year.

On April 28, 2024, at 1031 local time, a fire started on board the uncrewed yacht Flagship while it was docked at an enclosed bay of a shipyard on the Miami River in Miami, Florida. Shoreside firefighters moved the vessel to a nearby sea wall, where they extinguished the fire. The vessel eventually sank at the sea wall. There were no injuries, and no pollution was reported. The Flagship was declared a total loss, valued at $5 million.

Investigation

The NTSB report said the yacht Flagship was docked with no personnel on board at a shipyard on the Miami River in Miami when an explosion and fire occurred. Shoreside firefighters moved the vessel to a nearby sea wall, where they extinguished the fire. The vessel eventually sank at the sea wall.

The video from the security camera at the shipyard showed an explosion at 1031 that originated from the hatch for the space below the floor where the 24-volt lithium-ion battery bank was located. The explosion expanded from the hatch and into the interior of the vessel. Following the explosion, smoke and fire were visible on the Flagship, and the fire continued to grow, eventually engulfing the entire vessel. Investigators later identified extensive damage to the aluminum deck and hull structure in the area around and above the location of the 24-volt lithium-ion battery bank. Based on the security video and the location of the most extensive fire damage, a lithium-ion battery cell within the 24-volt battery bank was most likely the initiating source of the explosion and fire.

Since the vessel's arrival in the US, the BMSs for the battery banks of the 24-volt system and the three 48-volt battery systems were inoperable; they did not safely monitor and maintain the charge level of the batteries. This problem with the BMSs was not immediately resolved. In the interim, the vessel manufacturer, shipyard personnel, an electrician, and the vessel owner's representative developed a new procedure to increase the charging speed of the lithium-ion batteries by bypassing the BMS of each battery bank. A wire was attached to bypass each BMS so the batteries could be manually charged at a faster pace by an external charger. As a result, the charge level within the vessel battery banks was not automatically maintained by the BMSs, and, due to an unidentified electrical drain within the vessel, the batteries became fully discharged (0% charge) on several occasions for extended periods. In addition, routinely charging the batteries using a portable battery charger could have resulted in overcharging, since the external battery charger was not connected to and monitored by a BMS and the battery charge level was instead monitored by personnel at the shipyard. Therefore, the practice of externally charging the lithium-ion batteries without resolving the BMS issues resulted in fluctuations in the level of charge on the battery bank.

Extensive fluctuation in the level of charge within the batteries may have caused one of the cells to become unstable, eventually resulting in thermal runaway. A thermal runaway occurs when a battery cell overheats and combusts; it is a chemical reaction that can occur to any type of battery cell if it is damaged, shorted, overheated, defective, deep discharged, or overcharged. The heat produced from a thermal runaway of a lithium-ion battery cell can exceed 1,100°F, which can easily cause the adjoining cells of the same battery bank to ignite, as well as cause significant damage to aluminum structures. Lithium-ion battery cell explosions are typically caused by a thermal runaway. Therefore, the explosion on the Flagship was likely the result of one of the cells of the 24-volt battery bank undergoing a thermal runaway.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the fire on the yacht Flagship was the thermal runaway and explosion of the 24-volt lithium-ion battery bank due to the inoperable battery management systems, resulting in the practice of manually charging the lithium-ion batteries with a portable battery charger, which compromised the safe monitoring of the vessel's lithium-ion battery systems.

REPORT bites

UK marina company Premier Marinas has acquired boatfolk's 11 marinas – bringing Premier's combined portfolio to 22 sites across the UK.

Coatings specialist Hempel has appointed Gosha Kolton executive vice president and head of marine, effective January 1 2026. She will become part of Hempel's executive group management.

The Methanol Institute has released a statement in favor of IMO's adoption of the Net-Zero framework, calling it a pivotal opportunity to accelerate the global shipping industry's transition to low-carbon fuels.

Three Chinese-owned entities, namely Jilin Electric Power, Cosco Shipping and Shanghai International Port Group, have begun the construction of the nation's first full-chain green methanol facility for the maritime industry.

An 80-year-old woman died alone on the Great Barrier Reef Island after the cruise ship she was travelling on left without her, returning later when she had already passed away.

Hong Kong SAR lessons learned on enclosed space death

The Marine Department of the Hong Kong Special Administrative Region (SAR) has shown the results of an investigation into a death in an enclosed space on cargo ship Seren last year.

The vessel was anchored at the Suez anchorage. A team of shore workers was employed to clean the FOT and then repair the ruptured bulkhead of the FOT, which was damaged during the cargo loading operation at the last port. Following the toolbox meeting between the ship crew and the shore cleaning team, the cleaning operation commenced and continued intermittently. In the early hours of the fourth day, two shore workers rushed out of the FOT and reported that a fellow worker had been injured inside the FOT. Upon being notified of the incident, the foreman immediately entered the FOT in haste, carrying a flashlight and wearing a breathing apparatus mask. Under the ship crew's effort, the injured worker was successfully rescued from the FOT about three hours later. He later regained consciousness. However, the foreman could not be found inside the FOT until around five hours after he had entered it. He was eventually rescued from the lower platform of the FOT but showed no vital signs.

The investigation revealed that the main contributory factors leading to the accident were:

- the ship crew, the safety engineer of the shore cleaning team and the foreman failed to strictly follow the safety requirements for enclosed space entry and did not carry out a detailed risk assessment for the cleaning operation in accordance with the shipboard safety management system (SMS);
- communication between the ship crew and the shore cleaning team, or among the team members themselves during the cleaning operation was ineffective; and
- both the foreman and the shore workers demonstrated a lack of safety awareness and underestimated the risks and potential hazards associated with enclosed space entry.

UK MAIB report into engine room fire on Finnmaster published

The UK Marine Accident Investigation Branch has released its findings and issued 12 recommendations in a report into a auxiliary engine room fire on the Finnmaster Ro-Ro cargo ship as it departed a UK port in 2021.

At 2013 on 19 September 2021, a fire broke out in the auxiliary engine room on the Finland registered roll-on/roll-off cargo ship Finnmaster during departure from Hull, England. Finnmaster lost power, but the fire was later extinguished and the vessel safely re-berthed with the assistance of tugs. The auxiliary engine room was significantly damaged but there were no injuries.

The investigation found that:

- The fire started after mechanical failures on one of the auxiliary engines allowed fuel to leak from a flexible hose onto a hot surface where it ignited.
- The flexible hose was installed in the fuel system during an unapproved modification and did not meet the required standard.
- A fault in Finnmaster's emergency generator circuit breaker prevented it from supplying power to the emergency systems on board.
- The fixed carbon dioxide fire-extinguishing system failed to fully operate due to defects in the system.
- The crew's response, affected by the loss of critical safety systems, was ineffective.

Download the report at **https://bit.ly/47nQYG5**.

China MSA releases report into explosion onboard the YM Mobility

On 9 August 2024, a major explosion occurred aboard the container vessel YM Mobility at the Beilun Second Container Terminal in Ningbo-Zhoushan, China. The explosion originated from a container near the bow, loaded with dangerous goods. Although declared by the shipper as a reefer container used as a substitute for a dry container, it was not connected to a power supply. The incident resulted in an estimated economic loss of approximately CNY 90 million (US$13 million).

According to the China Maritime Safety Administration (CMSA), the container held tert-Butyl peroxybenzoate (TBPB), a thermally unstable compound capable of self-decomposition at room temperature, releasing significant heat and gas. The unplugged reefer, which lacked adequate heat dissipation, allowed heat from the TBPB's self-decomposition reaction to accumulate. This triggered a thermal runaway, leading to the explosion and subsequent fire.

The CMSA also linked the incident to extreme summer temperatures. When TBPB was packed in Shanghai on 25 July, the ambient temperature was around 35°C. From that date until the explosion on 9 August, both Shanghai and Ningbo experienced sustained high heat, with daytime temperatures reaching up to 40°C.

Containers stored outdoors would have been exposed to even higher temperatures, exacerbating the risk by raising the internal temperature of the unplugged reefer, increasing the chance of decomposition and explosion during transport.

The investigation revealed that the operator failed to perform a thorough safety assessment. No consideration was given to the compound's thermal sensitivity, seasonal temperature extremes, or the heat retention properties of an unplugged reefer. By approving the use of this container type for TBPB, the operator overlooked the serious temperature-related hazards.

Image : China MSA investigation report

REPORT bites

The teams surveying the site for Germany's largest offshore wind farm recently identified and cleared unexploded ordnance from World War II as they undertook the geoscience ahead of construction of the Nordlich project.

2025 marks the 170th anniversary of Shipowners P&I Club. To celebrate this remarkable milestone, they are launching a commemorative book.

Brunswick Corporation has announced the consolidation of its global fiberglass boat manufacturing footprint. As part of this rationalization, Brunswick will close its Reynosa, Mexico, fiberglass boat manufacturing facility.

Saudi Arabia's Red Sea Gateway Terminal (RSGT) signed a 30-year concession agreement with Djibouti Ports and Free Zones Authority (DPFZA) to operate and develop Port of Tadjourah.

The UK will launch a Maritime Innovation Hub in April 2026, aimed at accelerating the development of new technologies across the shipping sector while maintaining safety standards.

IMCA releases annual eCMID Inspection Findings and Quality Assurance Report to highlight key safety trends

IMCA has published its annual eCMID Inspection Findings and Quality Assurance Report, offering a comprehensive review of vessel inspection results and quality assurance processes for the 2024/25 period. The report continues to serve as a vital resource for the offshore industry, highlighting immediate priorities and mapping a long-term course for safety and compliance.

The eCMID system, comprising both the eCMID Vessel Inspection and the eCMID Small Vessel Inspection, recorded a significant rise in inspection activity. Figures to April 2025 show a 16% increase in inspections year-on-year, reflecting greater industry engagement with IMCA's safety and assurance initiatives.

Based on a total of 1,896 inspections conducted over the period, the eCMID Inspection Findings and Quality Assurance Report shares valuable insights into vessel compliance across a range of categories.

Read the annual report at **https://bit.ly/3XaoUzX**.

IUMI best practice for safely transporting EVs

IUMI has released an update to its best practice and recommendations for safely transporting EVs.

In 2023, IUMI published a set of best practice and recommendations for the safe carriage of electric vehicles. This was part of its ongoing support of loss prevention guidance to the global marine insurance and shipping sectors.

In September 2025, IUMI issued an updated version titled "Risk mitigation for the safe ocean and short-sea carriage of electric vehicles".

Several parts of the paper have been updated and new content added, for instance:

- risks related to potential gas accumulation;
- information on total energy release and peak temperatures;
- challenges with PCTC ship design;
- the "Fixed First" approach for PCTCs; and
- limitations of foam-based extinguishing systems.

A list of key points has been added at the end which summarizes the main findings in one page.

Download the document at **https://bit.ly/3JGGNTU**.

Insulation on turbocharger showing gaps in the way the insulation had been installed on the turbocharger outlet from the side (Source: TSB)

Cuyahoga engine room fire report by Canada TSB

The Transportation Safety Board of Canada (TSB) has published its investigation report into the engine room fire onboard the bulk carrier Cuyahoga that occurred in May 2023. The Cuyahoga was loaded with granular crushed stone as she left Marblehead, Ohio, U.S., bound for Kingsville, Ontario on Lake Erie. Almost three hours into the voyage, a fire ignited in the engine room. The crew initiated an emergency response, cut the fuel supply to the main engine, and attempted to activate the CO2 fixed fire suppression system remotely, without success. An attempt to locally activate the fixed fire suppression system also failed and resulted in the cylinder room flooding with CO2. Due to the cessation of fuel flow, the engine stopped, and the fire extinguished itself soon after.

Findings as to causes and contributing factors in the Cuyahoga incident
These are the factors that were found to have caused or contributed to the occurrence:

- The retaining clamps on the fuel injection lines were not in place, increasing the fuel lines' exposure to the effects of engine vibration.
- Rectifying the fuel injection line leaks was incorporated into routine maintenance tasks. Consequently, there was no evaluation of the cause of the repeated leaks.
- Without accurate, documented procedures available to them, crew members developed their own practices for managing fuel injection line leaks; this led to fittings not being adequately tightened to resist the vibration-loosening process. As a result, these deviations from the manufacturer's instructions likely contributed to the loosening of the fittings.
- A fitting on a fuel injection return line loosened and disconnected, creating a fuel spray.
- Gaps in the insulation exposed hot surfaces on the exhaust gas piping at the turbocharger outlet, and the fuel spray ignited on contact with those surfaces.
- The remote release cables for the fixed fire suppression system were located in an exposed location in the engine room and were damaged by the fire. Consequently, the cables failed and carbon dioxide (CO2) was not discharged into the engine room, requiring a crew member to attempt a local release.
- Unknown to the crew, an isolation valve in the fire main piping was corroded and it obstructed the flow of water to the fire.

Safety action
During the repairs to the carbon dioxide (CO2) fixed fire suppression system, the remote cables between the engine room access door and the cylinder compartment were routed outside of the engine room along the deck and skylight on the boat deck. The instructions for operating the CO2 system controls were modified, directing the crew to operate the directional stop valve before operating the control heads on the cylinders.

Read the report at **https://bit.ly/4hElT4k**.

New guidelines to enhance efficiency of container stowage

ClassNK has released new guidelines for those involved in container shipping, aiming to enhance the efficiency of container stowage while ensuring safety measures such as preventing cargo collapse.

According to ClassNK, these guidelines apply the latest expertise in weather forecasting, ship motion, and digital twin technologies. The newly released guidelines enable safer and higher-capacity container shipping by optimizing stowage based on weather forecasts for short-term voyages and by taking advantage of the roll reduction effects of anti-rolling devices.

Guidelines for the safety of maritime cargo based on weather forecasts
Route selection based on metocean information is one of the key factors in the safe transportation of cargo. Although weather forecasts are a valuable source of information when the forecast period is sufficiently short, it is necessary to take their uncertainties into account to ensure safety. However, there have been no specific standards until now, and each company has handled it individually.

By clarifying the correlations between the AIS records accumulated by ClassNK, over one million cases of past metocean data, and actual sea conditions through big data analysis, this guideline specifies new technical requirements for uncertainty qualification of weather forecast values and safety assessments of cargo, and describes corresponding standard evaluation methods.

In addition, this guideline also specifies a calculation method for a load correction factor based on weather forecasts for short-term voyages, related to container loading and lashing strength assessments for container carriers. By applying this guideline, safe and optimized stowage operations can be achieved in short-term voyages based on weather forecasts.

Guidelines for anti-rolling devices
Anti-rolling devices such as anti-rolling tanks have been increasingly installed on cargo ships in recent years for the purpose of improving safety, comfort, and work efficiency by reducing ship rolling. With growing concerns about cargo collapse accidents, attention to anti-rolling tanks has increased. While their installation on large merchant ships has started to spread, there have been no common safety standards so far.

This guideline specifies technical and inspection requirements for anti-rolling devices installed on ships, making use of the expertise on ship motions gained during the development of the Guidelines for Parametric Roll Countermeasures, and sets out a method for evaluating the effect of anti-rolling tanks on reducing roll motion.

By applying this guideline, safe container stowage operations considering the roll reduction effects of anti-rolling devices can be realized.

Guidelines for container stowage and securing arrangements (Revised)
The Guidelines for Container Stowage and Securing Arrangements (Edition 3.0), released in 2023, has contributed to balancing safety and economic efficiency by enabling optimized stowage operations that take into account the effects of routes and seasons, in response to the enlargement of container ships and advances in lashing technology.
With the release of the guidelines on weather forecasts and anti-rolling devices, the related requirements have now been revised to enable container stowage that also reflects these factors.

Download the new guidelines at **https://bit.ly/48W5Nkm**.

Fires dominate 2025 major claims, says Cefor

Cefor, the Nordic Association of Marine Insurers, has released the 2025 mid-year hull report with the latest fleet and casualty trends, plus a special focus on fires as fires dominate 2025 major claims.

In the report, fires represented the four costliest losses by end of June. It added 2025 is the third consecutive year with claims above USD 50 million, after a benign period 2015-2022 with only an occasional claim exceeding $30 million USD. Fires had significant impact in the first half year of 2025. Four out of seven claims above $10 million USD were fires and the costliest claims.

The report highlighted:

- A burning issue – Fires dominate 2025 major losses. 4 claims exceeding $20 million USD were reported by 30th June, far more than the ten-year average of 1.5 claims per 6 months. All 4 claims were fires. Since 2015, 16 out of 26 claims in all above $20 million USD were fires, thus representing the highest share of the costliest claims (62%). Other claims in that cost range typically are navigational-related (collisions, groundings, contact), and only occasionally another type. Another aspect is that 11 of in all 16 fires above $20 million USD reported since 2015 hit vessels older than 20 years – illustrating the risk of an ageing fleet.
- Third consecutive year with elevated claims costs. A combination of repair cost inflation and the return of major losses drove up claim costs from 2020 to 2023. While the increase seems to flatten out, 2024 and 2025 claims costs stay at a similar level as in 2023.
- The silver tsunami rolls on. The ageing of the world fleet continues, rolling wave-like through the NoMIS portfolio. While old vessels may be well maintained, from a statistical perspective old vessels are more prone to fires, machinery claims and consequential damages.
- Engine-room fires: highest occurrence on the oldest vessels and in the passenger, container and car/RoRo segment. While headline losses often are about fires caused by dangerous cargo, especially on container or car/RoRo vessels, engine room fires do not need less attention. An ageing fleet heightens the risk of machinery-related problems. Chapter 4 therefore dives into that issue.

Read the report at **https://bit.ly/3LIcSex**.

Global Shipping Business Network report argues that dangerous goods reshape the fires at sea landscape

The Global Shipping Business Network report focuses on the risk mitigation of the transportation of lithium-powered products in the maritime industry, which finds itself under increasing pressure to safely transport larger volumes of dangerous goods, which have reshaped the fires at sea landscape.

According to the Global Shipping Business Network report "Fires at Sea, A New Landscape – Risk Mitigation Strategies for Safe Transport" dangerous goods (DG) given their potential consequences, have received significant attention in conversations surrounding cargo handling.

For some special categories of hazardous non-dangerous goods, such as lithium batteries, existing guidelines cannot fully mitigate the risks associated with improper handling.

In the case of lithium batteries, mechanical damage, thermal stress, or overcharging can trigger the release of toxic, flammable and explosive gases, among other issues. Furthermore, fires caused by these batteries are uniquely dangerous due to their rapid and intense nature. Additionally, the toxic gases released pose serious health risks to the crew.

Of particular concern to insurers and the shipping industry at large is the risk of thermal runaway — a rapid, self-sustaining fire that can lead to explosions.

Read more on page 92 or download the report at **https://bit.ly/4nWuKA9**.

IIMS India Conference Charts the Future of Surveying

The 2025 India Conference, Fairfields by Marriot, Benaulim-Goa

Speakers from UK, UAE, and across India highlight ethics, human skills, and cargo safety.

The serene backdrop of South Goa set the stage for a day of serious reflection and spirited debate as the International Institute of Marine Surveying (IIMS) India Branch hosted its flagship India Conference 2025 at Fairfield by Marriott, Benaulim, on Sunday, 7th September. The IIMS, headquartered in the UK, is the world's leading professional body for marine surveyors, representing members in more than 100 countries and setting global benchmarks in training, ethics, and professional practice.

The conference was convened under the leadership of Capt. Ruchin C. Dayal, President of the IIMS and CEO of eDOT Solutions. Having an Indian at the helm of IIMS after more than a decade is a matter of great pride for the Nation's maritime community, and Capt. Dayal's presidency has brought renewed focus on the contribution of Indian surveyors to the global stage.

Global and Regional Voices

The first keynote was delivered by Mr. Mike Schwarz, CEO of IIMS UK, who flew in from the United Kingdom. Speaking on ***"The Value and Role of IIMS in a Rapidly Changing Maritime Landscape"***, he stressed the Institute's commitment to global standards and the necessity of raising professional benchmarks for surveyors.

Capt. Zarir S. Irani, Constellation Marine Services, Dubai, followed with a talk on ***"Ethics of Marine Surveying"***. His candid perspective on integrity and responsibility in commercial surveying sparked much discussion.

Capt. Shoukat Mukherjee, CEO of The Naval Connection, then inspired the audience with ***"The Human in the Loop: Why Future Skills Are More Than Just Tech."*** He highlighted that while automation and AI are reshaping shipping, judgment, adaptability, and ethics remain irreplaceable human strengths.

Case Studies and Interactive Learning

A first for conferences, each presentation was followed by a live quiz, that tested the audience's attentiveness and awarded prizes to the sharpest participants. The quizzes created a sense of excitement, kept energy levels high, and ensured that key lessons were reinforced in a memorable way.

Attendees glued to the post presentation quiz

An engaging highlight was the role-play skit on the MV Bulk Jupiter liquefaction case, where delegates assumed roles of shipowners, shippers, insurers, and surveyors. The exercise immersed the audience in a real-world investigation scenario, debating liability, responsibility, and the critical lessons of cargo safety.

Later in the afternoon, Capt. Manish Kumar Dixit, ASP Ship Management and Chairman of CMMI Goa, presented a case study that examined the practical challenges of bulk carrier operations, combining technical detail with lessons in leadership and resilience.

Panel Debate: The Next Surveyor

The panel discussion on "***The Next Surveyor – Respect, Responsibility, and Recognition***" brought together voices from across the spectrum — shipowners, P&I correspondents, maritime trainers, commercial surveyors, alongside Mike Schwarz and Capt. Shoukat Mukherjee. Moderated by Capt. Dayal, the debate explored whether surveyors are undervalued, what competency frameworks are needed, and how conflicts of interest in the industry must be addressed. The exchanges were frank, lively, and thought-provoking.

Closing and Reflections

Mr. Mike Schwarz returned later with a lighter, motivational session on ***"19 Tips for Business Success"***, leaving delegates with lessons that applied both at sea and ashore.

In his vote of thanks, Capt. Dayal acknowledged the support of the Goa Maritime Officers Association (GMOA), CMMI Goa Chapter, IMEI Goa Branch, and the Maritime Trainers Guild (MTG), and offered special appreciation to the eDOT team for their dedication and behind-the-scenes efforts in making the conference a success.

The day ended with high tea and networking, where surveyors, shipowners, and students alike mingled, carrying forward the spirit of collaboration. With international participation, interactive sessions, and a renewed focus on ethics and professionalism, the IIMS India Conference 2025 was hailed as a success — and a step forward in elevating the role of surveyors in the maritime landscape.

Immediate Past President meets the British Ambassador to Vietnam

Peter Broad, immediate Past President of IIMS said, "It was a great honour to attend the 'UK Summer Festival 2025' hosted by the British Embassy and His Majesty's Ambassador to Vietnam, Mr Iain Frew, with HMS Richmond Commanding Office, Officers and Crew, at Ho Chi Min City, on 23rd September 2025.

HMS Richmond provided a spectacular backdrop to the event held on the quayside with British and Vietnamese national flags being projected onto the hull during the formal speeches and ceremonial lowering of the British Ensign at Sunset."

Peter is currently working with the Isles of Scilly Steamship Company project managing the building of a new Cargo Vessel and a new Passenger Vessel which will serve between Penzance and St Marys in the Isles of Scilly.

Peter Broad (pictured left)

IIMS Canada Conference 2025 report

By Sarah White MIIMS

As the recreational waterways began closing for the season and boats were being hauled for winter storage, the Canadian Branch of the International Institute of Marine Surveying opened its 2-day conference in Hamilton, Ontario, on October 22, 2025. The location was aptly the Waterfront Centre, with a clear view of the harbour. First up to the podium was Mike Schwarz, CEO of IIMS UK, who provided an overview of the Institute and its offerings for those newly introduced to the organization, as well as a synopsis of the year's events at HQ and with our international partners.

As the day ramped up, I, along with the other attendees, were honoured to welcome such eminent speakers as the following:

Rui Fernandez, Partner at Gardiner Roberts, a prominent Toronto lawyer, talked about *Avoiding Pitfalls, in Surveys and Investigations (Errors and Omissions)*. Rui emphasized the importance of keeping current with industry standards, which made me appreciate the extensive educational and informative material and opportunities provided by IIMS worldwide. Rui also highlighted the importance of accuracy in the role of the surveyor, both in reports and actions, and to take a lot of pictures (!) which are imperative in the work we do.

Robert Bell, Applied Precision Inc 3D, followed with a presentation on 3D Lidar Scanning /Digital Transformation. Robert is the co-founder and President of Applied Precision 3D, a company that develops 3D and AR technology, providing high-accuracy data used in retrofit, inspection, maintenance, wear analysis, 3D CAD & BIM Integration, and reverse

engineering of vessel components - an impressive resource with a sound place in our industry, supporting surveyors and ship builders/repairers.

Vicki Gruber (pictured right), Harbour Master of the Hamilton Oshawa Port Authority took the podium after lunch on the first day addressing the topic of *Port Safety and Security: Strengthening the Greater Harbour Community* highlighting the challenges and responsibilities of her and her teams' roles in port safety and security with thought provoking examples of where and when things could have gone very wrong without due diligence, education, training and strong industry relationships, of which marine surveyors are a part.

Jami Buckley, Director of BYD – Naval Architects, presented early afternoon. Jami has an impressive pedigree in naval architecture and heads a family-run design company (2012), with offices in Southampton, UK, Hamilton, ON, and Tampa, FL/US. BYD conducts marine engineering, structural design, (new builds and retrofits), laser scanning technical support and services, naval architecture, and vessel surveys. BYD engages in the decarbonisation process and uses modern software and AI automation tools ("Neuralshipper" (TM)), which make the calculation time shorter and assist with simulations. Simulations examples were shown. Jami mentioned that in the decarbonisation process, the electrical propulsion, installation and energy storage onboard, in themselves, become increasingly important.

A recurring theme throughout the seminars was the risk associated with lithium-ion batteries in the marine industry.

Maciej Rynkiewicz, Standards Developer with the American Boat and Yacht Council (ABYC), is a leading voice in marine electrical standards and presented on *Lithium Battery Systems and Installations on Small Craft*. Maciej focused not only on the construction and different types of lithium batteries but also on the importance of using the correct types and adhering to specific installation requirements, which include the use of battery monitoring systems; failure to do so can result in dangerous situations, Examples of failures and prevention of failures was discussed, as was thermal runaway situations. The audience was provided with an e-mail address for further questions **tech@abycinc.org**.

Jan Willem de Jong, Managing Director of Neptunus Yachts. It was a pleasure to welcome Jan Willem de Jong, the Managing Director of Neptunus Yachts, an established Ontario yard that builds Category A luxury recreation pleasure craft from 55' to 75'. Jan, with the aid of slides, talked about the building process of their yachts and the challenges facing the industry today: Government regulations, luxury tax, tariffs and CUSMA, reduced water access, shortage of skilled personnel and sensitivity to economic changes. Neptunus is the only large fibreglass production yacht manufacturer left in Canada.

Prem Shanker, TheNavalArch. As our final presentation at the end of the day, we were privileged to have the globally respected naval architect, founder of TheNavalArch and recipient of India's Best Naval Architect award, Prem Shanker, to present on *Where engineering meets Survey, Practical tools for Marine Surveyors*. TheNavalArch supports industry stakeholders globally, including surveyors, operators, and contractors, by providing reliable, high-quality software, learning, and engineering solutions. Prem homed in on the close relationship of both surveyors and engineers, providing real-life examples and solutions where his company had assisted surveyors with challenges faced in mooring and towing operations, sea fastening / cargo securing, heavy lifts / pad-eyes, deck strength checks, and stability. TheNavalArch provide user friendly software packages for tow operations, bollard pull, calculations, cargo securing and check lists for operations.

The day was completed with an enjoyable opportunity to network and socialise with delegates and presenters in the comfortable surroundings of the Royal Hamilton Yacht Club during cocktails and dinner.

Day two was equally as informative as day one, and started with the privilege of listening to:

Mike Wall, Managing Director, Mike Wall & Associates Ltd. presented live from Bangkok on challenges and sound advice on *The Surveyor: "Getting Paid"*. Mike is a Fellow of RINA, a Chartered Engineer, Former Chief Engineer with Cunard Line, a renowned lecturer, author, and industry educator with deep expertise across marine operations and surveying. Mike is the editor of Flashlight and has assisted many surveyors who have faced remuneration issues. Mike's stark message on the importance of getting paid and the surveyor's responsibilities was clearly shared in his presentation. A good interaction with the public was experienced. Mike also publishes useful handbooks on a range of different subjects for surveying companies.

Kurt Huck, Transport Canada: Manager, Flag State, Compliance and Enforcement, with Transport Canada (TC), provided a clear outline of the program's goals and challenges, as well as how the marine surveyor could assist. A hot topic in the Canadian marine industry today includes the advances in the Small Vessel Compliance Program (SVCP), which is of enormous importance to commercial craft not more than 15 gross tonnage (GT), with 12 or fewer passengers (workboats, passenger, fishing and tugs), that are not subject to mandatory inspection under the Vessel Safety Certificate Regulations. The program's goal is to improve safety practices and affects over 31,750 in the Vessel Registry. Surveyors can assist TC in inspections; pilot projects are run and evaluated.

Of immense benefit to the conference was the interest and professional advice shared by three well-known and respected lawyers specializing in the marine field, not least was the esteemed Ms. Anumeet (Anu) Toor, who specializes in international trade compliance and customs law. Anu is a graduate of Windsor Law and has received the J.W. Whiteside Award for her contributions to access to justice. She also represented Canada at the 2018 IMF & World Bank Annual Meetings in Bali as a member of the Young Diplomats of Canada. Anu spoke on *Managing liability for marine surveyors*, referencing case studies and citing pertinent sections of the Marine Liability Act, while also discussing the surveyor's obligations and risk management of contract terms. Case studies were discussed. Audience interaction both in-person and through the virtual Zoom platform, with Anu was well appreciated.

Chris Kirby, Principal of Lani Maritime, represented MRC Marine recycling Corporation. One of the subjects that is high on the list in the maritime world today is the recycling of recreational craft, commercial small craft, and large ships. Chris Kirby, Principal of Lani Maritime, is a 35-year maritime professional who spent his first decade in the industry as a commercial diver and the next two with a tug/barge Company. Chris has served clients in several facets of the industry, from heavy haul, survey, salvage, and wreck removal and has been Salvage Master on multiple recoveries on all 3 Canadian coasts, working closely with MRC for the last several years. His presentation provided insight into how MRC has changed and made impressive advancements in clean ship recycling over the years. Chris shared examples of the beaching of the M/V "ST. CLAIR"" for ship recycling, noting the Goliath ability of their crew (creative photo moment on the next page).

Chris also explained how they had improved the efficiency of dismantling craft with diamond wire saws and the importance MRC placed on the cleanliness of their operations. His talk was highly informative and enjoyable to listen to and provided an interesting contrast to Jan of Neptune Yachts' presentation on boat building.

It was an honour, towards the end of the day, to welcome back a presenter who has spoken to IIMS members before on behalf of Transport Canada (TC). Luc Tremblay, Transport Canada TC. Luc is the Executive Director, Domestic Vessels Regulatory Oversight, overseeing vessel inspection, certification, and regulation for all Canadian domestic vessels through Transport Canada Marine Safety and Security. He is a seasoned ship designer and former marine consultant, who provides deep technical expertise in regulatory development, safety systems, and compliance, holding degrees in Naval Engineering, Architecture and Engineering Technology. Luc talked about Overview of Small Vessel Oversight, Small Vessel Manufacturers, and Importer Compliance. Program Oversight, Marine Safety Management System Regulations (MSMSR), Implementation and the Domestic Vessel Oversight Review Initiative. In this highly informative talk, he also touched upon the categories and top 10 safety deficiencies by vessel type. One of the key takeaways for me was the paramount importance of marine surveyors staying up to date with vessel compliance requirements and serving as an essential aid to education in our industry.

Jose Luis Duarte, (Thordon Bearings Inc.) a Marine Engineer with expertise in marine diesel engines, heavy equipment systems, and field engineering, followed Luc with his presentation on *Water Lubricated Stern Tube Bearings*. Jose works for Thordon Bearings Inc. founded in Hamilton ON, (a global leading company in oil- and grease-free bearing solutions). He gave a very informative presentation on the environmentally friendly shaft line bearings, and the revolutionary T-BOSS ship design which has facilitated inspection and replacement of conventional systems, with significant space saving benefits. Special water lubrication bearing materials are available for small boats and work boats operating in shallow water (abrasive waters).

The event closed out with sound words of wisdom from Mike Schwarz with a presentation entitled *19 Tips for Business Success*, which was keenly listened to, as he shared his own personal recommendations from a business career spanning nearly 40 years.

The conference was well-attended, and the feedback received was highly positive. A special thank you is owed to all who attended, and especially to our presenters who voluntarily gave their valuable time to share their professional knowledge and experience with our delegates.

The attendees (virtual and in-person) will receive summaries of the presentations and links to the videos of the presentations.

IIMS attends IBEX and Metstrade

IBEX (International Boatbuilders' Exhibition & Conference) and Metstrade are both major international trade shows for the marine industry that are now strategic partners.

Based at RAI Amsterdam, Metstrade is the world's largest leisure marine equipment trade show, and it collaborates closely with IBEX, the leading boatbuilding exhibition in North America. The two event teams partner to share knowledge and insights with the global marine industry.

IIMS has recently had a presence at both events. In October, IIMS members based in the US, James 'Randy' Renn and Ray Bracken, manned the Institute's stand at IBEX.

Supported by their wives, they were at the show for all three days. They report good interest from those who stopped by the booth. Big thanks from IIMS HQ for your excellent work.

Ray Bracken (left) and James 'Randy' Renn (right)

Mike Schwarz, accompanied by Sharon Holland who manages the (Registered Marine Coatings Inspector (RMCI) and Yacht Coatings Technical Insight (YCTI) programmes, visited the giant Metstrade show in Amsterdam during mid-November.

Mike delivered a keynote address at the Superyacht Coatings Conference on the first day as part of the Superyacht Forum event within the show. In his presentation, he reviewed the progress of RMCI as a qualification and standard over the past decade. Mike also announced the first new addition to the RMCI classification since it was launched – RMCC (Registered Marine Coating Consultant). This new level, currently subject to a pilot project, is set to be rolled out in 2026.

It is 2014 since the last Superyacht Coating Conference took place to discuss and review the challenges faced by this industry sector. It was long overdue. Rather depressingly, some of the topics raised were the same as those discussed 11 years ago! Sometimes it seems, progress takes an inordinate amount of time to advance!

IIMS launches a brand new four-module course for lithium batteries

After some months of preparation and development, IIMS has launched a new four-module course dedicated to the subject of lithium batteries, one of the most talked about and misunderstood topics in the marine surveying profession today.

The course has been authored by leading lithium-ion battery experts David and Magda O'Neill, who are based at akuPalma in Mallorca.
The course is by nature technical in content and digs deep into the chemistry, as well as assessing how to survey and inspect installations of lithium batteries.

IIMS CEO, Mike Schwarz said, "My inbox has been jammed with surveyors asking about lithium batteries all year. There is such a lack of understanding on this topic, and no-one is sure where to turn for advice and training. As the months rolled by, I became more and more frustrated at the lack of specific training on lithium batteries.

"Turning to David and Magda, who have presented on lithium batteries at IIMS events before, and tapping into their expert knowledge, was a natural step and I am delighted with what they have created.

"The course is technical, and I am not certain we can make a general marine surveyor an expert overnight. But those who choose to study this material will gain a significant insight into the technology, coupled with the confidence and knowledge to enable them to understand what they are inspecting to know if it is a good or a bad installation.

"Education is key for not only professional marine surveyors, but also for their clients. I am delighted that IIMS has been able to take a lead by delivering this important training."

Here's what the course comprises

Part 1. Lithium Battery Chemistry and Structure

In brief: The Lithium-ion battery family chemistries. Differences in properties and physical build solutions.

An introduction to the Battery Management System (BMS). High Voltage and Low voltage configurations.

Part 2. Safety and Installation of Lithium Batteries

In brief: BMS function and architecture options. Fusing guidelines. Safety Cascade and communications. Installation design differences for modern vessels.

Part 3. Maintenance and Electrical Installation

In brief: Failure and fire risk of the wiring installation versus the battery itself. Correct high load cabling installations and safety. Cable sizing for conventional and redundant systems. Common fire risks.

Part 4. Surveying and Inspections

In brief: Surveying and inspecting lithium battery installations, including design, risk factors and failures. Regulations in the marine industry and confusion for the surveyor. Vessel overall risk factors.

The next step

The total study time of all four modules is estimated at between 10-12 hours. The training material and content are provided in video format, meaning you can study in your own time and at your own convenience. There is an assessment option available for each module too.

The four individual modules are priced at £150 each, or the whole course (all four modules) is available to purchase for just £500.

To view and purchase the course go to **https://bit.ly/4pif5vM**.

Elly Bryant celebrates 10 years with IIMS

It was a pleasure to be able to recognise and celebrate Elly's 10 years of employment with IIMS recently.

Elly joined IIMS back in September 2015 on a temporary contract basis as her first proper job to provide maternity cover. Ten years on, she is still working within the business. Talk about a baptism of fire, Elly's first day with the business meant travelling to the 'big smoke' to attend the large IIMS Conference in central London at the illustrious Lloyd's oak panelled Old Library venue! How strange that must have been, and what an initiation too.

Over the years, Elly has had a number of jobs within the business, but as the needs of the organisation have changed, so have her positions in response. Elly is now settled into her latest and most responsible role to date as the eCMID Accreditation Scheme Administrator, managing applications from would-be new inspectors and handling the process.

Recent new IIMS members, upgrades and graduates

Full members

A.S.M Arifuzzaman	*MIIMS*	Bangladesh
Imam Hossain	*MIIMS*	Bangladesh
Justin Green	*MIIMS*	UK
Lance Sheward	*MIIMS*	Australia
Midhun Mohan	*MIIMS*	Qatar
Tran Thinh	*MIIMS*	Vietnam
Vignesh Prabhu	*MIIMS*	Abu Dhabi

Technician member

Andrew Brines	*TechIIMS*	N.Ireland
Carlo Trivellone	*TechIIMS*	Italy
Davide Bellina	*TechIIMS*	Italy
Sanjoy Kandathil	*TechIIMS*	Qatar

Associate member

Barbaros Kizilozen	*AssocIIMS (Big Ships)*	Netherlands
Rupert Keyzar	*AssocIIMS*	UK
Sylvain Fotsop	*AssocIIMS*	Cameroon

Affiliate member

Alperen Canik	*AffilIIMS*	Turkey
Andrea Alberani	*AffilIIMS*	Italy
Antares Hazelton	*AffilIIMS*	Ireland
Barbaros Kizilozen	*AffilIIMS (Small Craft)*	Netherlands
Clayton Layton	*AffilIIMS*	UK
Derek Bottles	*AffilIIMS*	USA
James Oxenham	*AffilIIMS*	UK
Javier De Alarcon	*AffilIIMS*	Spain
Jonathan Loh	*AffilIIMS*	Singapore
Lee Keevil	*AffilIIMS*	UK
Mark Cartret	*AffilIIMS*	USA
Martijn Hendriks	*AffilIIMS*	Netherlands

Graduate members

James Lowe	*GradIIMS*	UK
Luka Carboni	*GradIIMS*	Monaco
Lucian Feodorov	*GradIIMS*	Romania
Mate Branko Dujmic	*GradIIMS*	Croatia

Correction from The Report magazine, Sep 2025, Issue 113:
Technician member
Andy Scott ***TechIIMS*** *UK*

IIMS congratulates James Lowe, Luka Carboni, Lucian Feodorov, *and* Mate Branko Dujmic *for completing the IIMS Professional Qualification in Yacht and Small Craft Marine Surveying.*

2025 in reflection: A year of travel and yet more innovation

*By **Mike Schwarz**, IIMS CEO*

Some years are more memorable than others, but 2025 will go down as one of the most memorable for me in my eleven years as IIMS CEO. I shall explain more in the coming pages. Some years are also more defining than others. I would put 2025 into that category too.

But first, here's my general overview. I want to start by letting you know that IIMS has had a progressive year. Our revenue growth has been strong with all income streams performing well, which is rarely the case in any business. Financial budgeting is always a headache and hard to get right, but well done and thanks to my colleague Jen Argent, Head of Finance, for handling the numbers so effectively and helping us all to make sense of them. The costs of running the organisation have been well controlled and the result is a healthy surplus, some of which we plan to reinvest into new projects in 2026 as we continue our quest to further improve our processes and procedures with the help of AI.

IIMS is becoming an ever-complex organisation and a very different one from the one I joined back in 2014. Whilst I can't honestly say this is always by design, much of the growth has been organic and we continue to seize relevant opportunities as they arise. So, we are increasingly looking for opportunities in other, related areas in the marine sector, such as the offshore inspection sector and superyacht coatings industry where we have had a lot of success over the past decade. But fundamentally our core business remains as a membership organisation and serving the needs of our members through the work we do and providing benefits and international recognition.

This year, after 18 months intensive work behind the scenes, we have brought a brand-new sophisticated training portal to market, which looks set to transform the way a marine surveyor trains and learns in the future – the IIMS **On Demand Training Portal**, a joint collaboration with our App development team, eDOT Solutions, who are based in Goa. It is early days, but already over 100 people have signed up to the portal. The plan is to keep adding new content and training materials, not just for the benefit of members, but for anyone who is involved in the maritime sector. I would encourage you to Google IIMS **On Demand Training Portal** and check it out for yourself or go to **https://trainingportal.iims.org.uk/**.

We have further strengthened our ISO 9001 programme following being awarded the standard last year for ***'Training Services in Marine Surveying'***. At our first formal external audit in June 2025 by DNV, the auditor found no major or minor findings. Camella Robertson, General Manager, should take much of the credit for maintaining and developing the associated documentation and preparing for audit. It is exacting work. These audits are never straightforward, and a huge amount of preparation is essential.

If this year has been overwhelmingly defined by one topic, it has been the year when the subject of lithium-ion battery technology has really come to the fore. My inbox has been jammed with lithium-ion related emails and telephone calls from members (and others) from all over the world. And yes, this is a worldwide issue. It is a challenging and difficult subject for many surveyors, most of whom are genuinely concerned at how little they currently know about these batteries and the chemistry involved.

Interestingly, there is no evidence that lithium-ion battery fires are more prevalent than conventional fires, but when one occurs the outcome is far more spectacular, often leading to total loss, and the cost to insurers sizeable. So frustrated did I become as the year passed by, that I commissioned two experts in this field, David and Magda O'Neill, to develop a four-module course running to about 10 hours of study time on this subject. It has just been released and is available to study through the On Demand Training Portal.

Continuing with this theme, one of the most significant projects I have undertaken this year with my colleague, Frances Birkett, has been the development and launch of '**Lithium-ion battery fires: What we know so far**' – a 36-page publication, freely available to all. Frances and I have co-authored the publication on behalf of the Maritime Professional Council of the UK. We have come at it not from a heavy technical aspect, rather with the aim of educating and informing by using case studies and relevant articles. It can be downloaded at **https://bit.ly/4oXz3vH**.

Murrills House, the ancient home of IIMS in Portchester, has been lovingly further maintained this year, as have the gardens. Deterioration to the paint work of the wooden frames was noticed some months ago. This has been addressed and new paint added. The front door has also been subject to some redecoration. However, in October following a routine service and inspection, the main boiler was condemned. This was an unwelcome surprise, but fortunately the weather was unseasonally warm in the UK at the time. A further complication arose when the contractor discovered asbestos in the flue, which had to be removed. The heating company moved quickly, and a new boiler was installed in a timely fashion. It was an expensive, one-off expenditure, but should last for 15 years.

Just last month, I announced a number of job title changes in the team. It has become clear to me that over time, some existing job titles no longer reflected what individuals actually did. With this in mind, the following changes have been made. Jen Argent becomes Head of Finance, Camella Robertson becomes General Manager, Vicki Loizides has taken the title of Head of Education, Rachel Moores is now Membership Secretary and David Parsons, who manages the Certifying Authority, will join the Institute's internal management team from 1 January 2026.

The year of 2025 has seen me travel extensively and I have met some inspiring as well as loyal members in all parts of the globe. They say that travel broadens the mind, and I would agree that is does. More on this later.

Certifying Authority Update

The IIMS Certifying Authority (CA) remains one of the smallest in the UK, but our coding and tonnage work continues to grow at a steady pace. We aim to apply high and consistent standards to the work and pleasure boats we code under the terms of our contract with the Maritime & Coastguard Agency (MCA). Our code examiners work closely with the regulations in the UK and it is an exacting function. It needs to be done correctly to the highest standard and it must be accurate. The role of the scrutineers remains of paramount importance, and I applaud the work of the CA committee who oversee things. Our most recent external MCA audit brought no major findings with just a handful of minor findings to address.

New CA contracts have been signed and put in place with the MCA at the start of the year and additionally with the Cayman Islands and Gibraltar registries subsequently.

David Parsons and Erin Kelsey do a great job of keeping the IIMS CA afloat and running in a highly efficient manner.

At the time of writing, the most significant regulation changes to be implemented in the UK under 24 metre sector for boats used commercially for sport or pleasure purposes for a quarter of a century are finally upon us. The new Sport or Pleasure Vessel Code has been in development by the MCA over a couple of years, and having seen and commented on the new regulations, it is clear that they will impose challenges for coding examiners and scrutineers. There is also the responsibility I feel we have to assist our vessel owners and operators to become compliant with the new code. They, too, will need awareness training. The Code comes into force from 12 December 2025.

We have continued to train and authorise new tonnage surveyors, some who attended an in-person training event in September at Itchenor on the UK south coast, and others who participated in our remote tonnage training programme, approved by the MCA.

Membership Status

IIMS membership remains loyal and steady. The annual churn is about 5%, some of whom retire and others, sadly, who pass away. It continues to hover around 1,000 members in over 100 countries. The balance of membership splits almost equally between yacht and small craft surveyors and commercial ship practitioners.

This year has seen a strong influx of new membership applications. On average in the region of 120 new applications are received each year, but contrary to what some might think, not all by any means are granted membership by the Professional Assessment Committee and, indeed, a number do not obtain the grade they were hoping for. That means we are fussy about who joins the organisation and, as I have often been heard to say, "We are only as strong as our weakest member," and I still firmly believe that. Rachel Moores is diligent in her work and is dedicated to handling new membership applications and dealing with matters arising from existing members.

Education and Training

The IIMS education and training output remains one of the key cornerstones of the Institute. Head of Education, Vicki Loizides, has overseen a busy year of development and growth. With well over 200 distance learning students enrolled in our two Professional Qualifications, IIMS continues to set the standard and lead the way as a distance learning educator.

Currently we are reviewing the structure and course material of our two Professional Qualifications - the biggest review we have undertaken for a number of years. All the modules will get a makeover and as we press on with our succession planning, inevitably some new authors, markers and assessors will emerge. The education committee has met twice this past year and is heavily engaged in the refresh exercise.

As well as other new course material we have produced, the IIMS education team has reviewed and relaunched the in-depth, essential Professional Qualification in Marine Corrosion. This 10-module course is now available to study at your convenience via the On Demand Training Portal.

The IIMS third iteration practical course takes place in early December at the Boat Building Academy. The four-day residential course is all but sold out. It gives students the opportunity to inspect three different vessels over three days under the guidance of three experienced, senior IIMS members. The fourth morning is turned over to report writing techniques. Students then depart and in their own time prepare a simple report on one of the vessels they have inspected for assessment.

Conferences and Seminars

The Institute has run a number of high-profile events across the year, which is the reason I have been on and off airplanes, criss-crossing the world!

It started early in the year with a short trip to Newport, Rhode Island when I was invited to address the IMCA North American Regional Meeting. It was a great opportunity to promote the eCMID AVI offshore inspection programme which IIMS has been involved with for more than a decade.

My annual trip to co-host the IIMS Baltimore two-day Conference at the MITAGS facility followed and was well attended as it often is. The range of speakers was, as always, of the highest quality. My thanks to James Renn HonFIIMS and Ray Bracken MIIMS for organising proceedings.

Our Ireland seminar was a success, held at Howth near Dublin for the second consecutive year.

The first IIMS conference to be held in the heart of London for commercial ship marine surveyors in many years was held in May. It was well attended, not only by IIMS members, but also by representatives from P&I Clubs too, many of whom were based in the building where the event was held. Huge thanks are due to Stuart Edmonston HonFIIMS, UK P&I Club's Safety & Risk Management Director. He was the perfect host and offered the Club's well-appointed meeting space for us and was kind enough to provide a buffet luncheon too.

Capt Ruchin Dayal with Mike Schwarz

The long three-week trip to Australia and New Zealand, routing back via Singapore, was physically punishing but hugely rewarding. I am most grateful to those who hosted me and welcomed me so warmly. This was my first visit to Auckland, New Zealand. As well as meeting many members for the first time, I was also pleased to become acquainted with a number of Kiwi 'movers and shakers', including executives from the regulator, Maritime New Zealand, and key trade associations. On to Brisbane for what proved to be two days of excellent conferencing. It was good to see some familiar old faces as well as meeting some new ones.

September and October saw me travelling to Goa and Hamilton to attend the India and Canada conferences respectively. Both events were perfectly organised and well attended, attracting some of the finest speakers and presenters too. My thanks to those locally who took care of arranging the events, sorting out the venues and speaker schedules. In particular I must single out Capt Ruchin Dayal from Goa and Sarah White from Canada.

Sarah White with Mike Schwarz

And finally, in November I took a trip to Scotland for our annual seminar, which this year was rather poorly attended sad to report by in-person attendees. I also headed out to the Metstrade show in Amsterdam with my colleague, Sharon Holland. As well as visiting the show, my main purpose of going was to deliver a short keynote speech at the Superyacht Coatings Conference, the first such event for 11 years. I also hosted a panel discussion involving a number of the most respected and knowledgeable people in the coatings industry as we chewed over some of the issues of the day.

Communications Strategies

REPORT MAGAZINE

The consistency our quarterly magazine The Report continues to impress many, and I am hugely grateful to all those who have contributed for the readers' benefit. This year, the four editions have averaged in excess of 140 pages each. Researching each publication takes up a good deal of time, but it is one of the most enjoyable parts of my role! I am grateful to all those who have commented on the publication. I am often asked how many people read it. In truth I have no idea, but from the downloads we track, I would estimate each issue is read by over 10,000 individuals. My colleague Craig Williams, Graphic Designer – the longest serving IIMS employee – continues to produce work of the highest quality.

MONTHLY NEWS BULLETINS

IIMS monthly news bulletins have also continued to grow. The sharing of essential marine news means that more often than not, they extend to 30 pages and beyond. Delivered in PDF and magazine eReader formats to a sizeable database, the open rate can often be in excess of 40% (extraordinarily high). It is not uncommon to see an issue opened by over 11,000 people.

MONTHLY NEWS PODCASTS

Last year we started creating monthly news podcasts. These bring the news from the published format in two audio versions – one for yacht and small craft marine surveyors, the other for those involved with commercial ship surveying. With a run time of on average over 20 minutes, they have now become an essential part of our communications strategies. Sometimes the two podcasts will achieve 4,000 listens a month. All 2025 podcasts are now curated on the IIMS website in one location and are freely available to all.

MID-MONTH MARINE COMMUNIQUÉ

The Mid-Month Marine Communiqué is just about to celebrate its 36th edition. This quirky emailer, as the name suggests, is circulated mid-month. It is a collection of carefully researched and resourced links to relevant podcasts, appropriate technical documents and a range of other suitable content, including events and newsletters. This too achieves a high engagement and open rate and is often read by over 9,000 people.

My colleague, Frances Birkett, has made the monthly podcasts and the Mid-Month Marine Communiqué very much her own project and I am grateful to her.

ANNUAL SAFETY & LOSS PREVENTION BRIEFINGS COMPENDIUM

It is hard to think we are now in the closing stages of preparing Edition V of the annual compendium. This is a roundup of the accident and incident reports published by various authorities, collated over the year. It also brings together the various loss prevention guidance and advice published during 2025. The most distressing content, however, is the calendar of maritime accidents and tragedies that we have captured across the year. It is a fact that the number of ships lost at sea is declining, but it strikes me that the number of incidents is sharply on the increase and so many of them avoidable.

It is scheduled for release in early January 2026 and will be freely available to download from the IIMS website.

WEBSITES and SOCIAL MEDIA PLATFORMS

The IIMS website continues to attract many thousands of visitors each month and is a fully functioning ecommerce platform in its own right. Alex Ockenden has responsibility for uploading and maintaining the busy site, which now boasts over 3,000 searchable news stories and feature length articles. In particular, Alex has spent a considerable amount of time working to enhance search engine optimisation across the site.

Alex has also been responsible for reinvigorating the Institute's Instagram channel. Why not follow IIMS.

LinkedIn remains a powerful channel and we post regularly. More than 11,000 people now follow IIMS.

The Institute's YouTube channel has attracted approaching 3,000 subscribers. With over 300 videos to browse, there is something for everyone. Just go to YouTube and search **IIMS Marine Surveying**.

Other IIMS activities, including two celebratory milestones

eCMID AVI SCHEME

The eCMID Accredited Vessel Inspector (AVI) Scheme celebrated ten years since launch back in May. To recognise the success of the scheme, which accredits those who are involved in inspecting and auditing offshore vessels in line with the International Marine Contractors Association's (IMCA) documentation, known as the Common Marine Inspection Document (CMID), we held a special and memorable one-day seminar in the heart of Amsterdam. Many of those who were involved at the time of the scheme's launch in 2015 were present. Dinner the previous evening was held in the splendid West-Indisch Huis.

IIMS manages the accreditation scheme on behalf of IMCA and both parties have recently signed a new 5-year agreement. It is a testament to the success of the programme that AVIs are now acknowledged and respected throughout the offshore sector. Since we began, more than 1,100 individuals have come forward seeking accreditation.

Over the years, the IMCA team has made many significant upgrades to the reporting mechanism, including new state-of-the-art IT initiatives which has greatly improved the scheme and made it better for all.

This year, in particular, has been very busy - not just with a flurry of new applications – but also with inspectors who have come forward for their second five-year renewal along with those who have hit their first five-year renewal date.

My colleagues, Sharon Holland and Elly Bryant, do a great job in what is often a pressure cooker environment, expertly handling the inbound application process and organising the many online courses each year.

RMCI and YCTI PROGRAMMES

Another IIMS programme that also marked its tenth birthday this year is the Registered Marine Coatings Inspector (RMCI) standard and qualification. The stakeholders in the project include ICOMIA, AkzoNobel and SYBAss. Now let me tell you, this really is a niche area of surveying and inspection populated by few, many of whom are considered experts in looking at newbuild and refit superyacht coatings projects. The costs of these super and megayacht projects are high, as is the potential jeopardy if something goes wrong for the coating inspector! They need to be at the top of their game.

The scheme was developed all those years ago with the specific aim of upskilling those whose role it is to inspect the coating systems. More than 200 have gained the standard since we began. Our most recent course was held in Italy under the tutelage of experts Rory Marshall FIIMS and Ken Hickling HonFIIMS.

Just a couple of years ago, we launched a subsidiary course entitled **Yacht Coatings Technical Insight**. This programme was developed in response to calls from the industry. It is a two-day programme aimed at those who need to know about paint coatings without becoming an expert. A number of project managers and their teams from some of the best-known superyacht yards in the world have come forward to participate. RMCI and YCTI are very much Sharon Holland's baby, and she expertly combines this work with her eCMID AVI scheme duties.

Shipping Registries and Regulators

One of the most surprising and pleasing developments this year has been the interest shown by several well-known shipping registries and national regulators who have reached out to IIMS to explore joint collaboration possibilities with surveys and inspection regimes.

Whilst I have nothing concrete to report at this stage, IIMS is in advanced negotiations and discussions. It seems unimaginable some years ago that this type of dialogue would be taking place. But it is a sign of how far the organisation has come. Look out for further announcements in 2026.

Other External Activities

This year, IIMS has had a presence at three high-profile marine shows.

June saw IIMS with a booth as part of the larger Workboat Association stand at the annual SEAWORK show, said to be the largest workboat exhibition in Europe of its kind. Sadly, due to a back problem, I was unable to be with my colleagues on the stand, but I know how pleased they were to meet many members who came by to say hello.

In October, James Renn and Ray Bracken manned a booth for the Institute at the major US trade show, IBEX. They reported good interest and engaged in a number of meaningful conversations with visitors who stopped by.

The following month in November, my colleague and I, Sharon Holland, visited the large European exhibition, Metstrade in Amsterdam. Apart from visiting the show, the main purpose was to present a paper to announce and launch a new classification of the RMCI standard – RMCC (Registered Marine Coating Consultant) - at the well-attended Superyacht Coatings Conference, part of the Superyacht Forum. I also had the pleasure of hosting a panel discussion with several coatings industry heavyweights.

I have continued to be an active member of the Maritime Professional Council (MPC) of the UK. IIMS was a founding member five years ago. This year I took on the role of Chair of a sub-committee on lithium-ion batteries, and the outcome was the aforementioned publication about lithium-ion battery fires. MPC members, which now comprises many of the recognised and well-known UK maritime based organisations, meet every two months. Our agenda is wide and varied.

IIMS has continued to be of assistance to Tom Keeling, an inland waterways surveyor and Chair of the IMarEST Small Ships working group. He has been diligently investigating Post Construction Assessments - when they would be and should not be applicable. More news and clarification on this topic are expected in the new year.

Thanks to my colleagues and our suppliers

It is always important to recognise those who play their part in ensuring the success of IIMS. I am grateful to the work and effort put in by my 11 immediate colleagues, all of whom I have referenced in my article. Over the years, we have developed specialists within what I said earlier in my article, is an ever increasingly complex organisation. But we are bound by a strong team bond and ethic.

People often forget to recognise those externally who help to keep their business running from IT specialists to telecoms experts, solicitors and the gardeners. So a big thank you to all those who underpin IIMS.

And finally, my heartfelt thanks to the executive and management boards, our various markers, assessors, tutors, scrutineers and committee members. And not forgetting Regional Directors and local committee members who give freely of their valuable time.

Collectively we all go to make IIMS the successful organisation that it has become.

Warm regards.
Mike Schwarz
Chief Executive Officer

New fisheries surveillance boat delivered to Germany's Mecklenburg-Western Pomerania state

The State Office for Agriculture, Food Safety and Fisheries of Mecklenburg-Western Pomerania (LALLF) in northeastern Germany recently welcomed a new fisheries surveillance boat into service.

Designed and built by Tamsen Maritim of Rostock, the all-aluminium Goldbutt measures 17.3 by 4.9 metres and can be crewed by three to six people. Two 588kW engines will deliver speeds of up to 30 knots.

The LALLF will operate the new fisheries surveillance boat out of Sassnitz. A draught of only one metre will enable the vessel to also operate in nearshore waters. Other notable features include a wave-piercing bow for smoother navigation even at high operating speeds and reverse-angled windscreens to reduce glare.

Lürssen launches 114m superyacht COSMOS with Marc Newson design

Lürssen has launched COSMOS, a 114.2-metre (374-foot) superyacht with exterior and interior design by Marc Newson. The yacht, which entered the water on 9 August 2025, is one of the largest launches of the year.

"This is a rather special project to coincide with our 150th anniversary," said Peter Lürssen, CEO of Lürssen Yachts. "While it is true that as a custom shipyard, no two yachts that leave our halls are ever the same, there are some that leave an indelible mark on our history–COSMOS is undoubtedly one of those yachts."

Commissioned by a visionary owner with a desire for a truly unique platform for exploration, COSMOS features a cohesive, elegant, and futuristic profile, with both the exterior and interior designed by Marc Newson.

"Working with an immensely creative client has enabled rare opportunities to push the boundaries," Newson commented. "Everything from the smallest detail to the silhouette – outside, inside, and everything in between – is our design. We have, therefore, been able to exploit and explore every creative possibility uninhibited. This liberating free rein afforded the project a joyful, organic evolution, one which resulted in a satisfying novelty and coherence, the aesthetic of which remains very much within our lexicon."

New vessels review

Hydrogen-powered demonstrator houseboat to be operated in Germany's inland waters

German shipbuilder Kiebitzberg Schiffswerft has handed over a new houseboat to local river cruise operator Eichberger Schiffservice.

Developed in-house by Eichberger, Kingfisher also serves as a technology demonstrator vessel, being fitted with hydrogen fuel cell propulsion and solar panels in line with the owner's aim of providing tourists with a local emissions-free travel option along inland waterways in Germany.

Kiebitzberg is responsible for building the demonstrator, which is equipped with a Deep Blue 50kW engine and an 80kWh battery supplied by electric propulsion specialist Torqeedo. The integrated fuel cell from Argo-Anleg enables a completely energy-self-sufficient stay on the water for several days with a daily travel time of four hours.

Karl leads the way as first of its kind US ferry

As San Francisco Bay Ferry awaits the arrival of its zero-emission newbuilds, the agency is ensuring that the final diesel-powered vessels to be built for its fleet are the cleanest in the nation.

SF Bay Ferry took delivery of the high-speed passenger vessel Karl, a 137'x36.45' aluminium catamaran designed by One2three Naval Architects, Pyrmont, Australia, and built by Mavrik Marine Inc., La Conner, Wash., with construction management services provided by Aurora Marine Design, San Diego.

The boat's EPA Tier 4-compliant propulsion package includes quad MAN D2862LE48B diesels that produce 1,450 hp at 2,100 rpm to power four HamiltonJet HTX-52 waterjets through Reintjes WVS440 DR DL gears. The ferry, which has 2,000 gals. fuel capacity and runs on R99 renewable diesel, cruises at 40 knots.

Karl features selective catalytic reduction (SCR) systems to reduce nitrogen oxide emissions, and it is the first passenger ferry in the United States to be equipped with diesel particulate filters (DPF). The vessel's four MAN DPF units — one for each engine — filter virtually all the soot particulate from engine exhaust, ensuring compliance with California Air Resources Board (CARB) harbor craft emissions regulations.

Pacific International Lines names newest dual-fuel containership in Ghana

Singapore-based shipping company Pacific International Lines (PIL) formally named its newest container vessel in a ceremony at the Port of Tema in Ghana on Tuesday, September 16.

Kota Odyssey belongs to a new series of four 8,200TEU LNG dual-fuel container vessels ordered by PIL from China's Yangzijiang Shipbuilding. These vessels will form part of PIL's long-term plan to optimise its network deployment and renew its fleet for greater operational efficiency and increased sustainability.

BENETAU unveils a range flagship: the new Gran Turismo 50

In the wake of the announcement of their groundbreaking new crossover express cruiser range, BENETEAU has lifted the curtain to unveil the first images of its luxurious new flagship - the Gran Turismo 50.

Just like its smaller siblings, the new Gran Turismo 50 is designed around a revolutionary new approach to layout, looks and ergonomics, combining them all upon a hull at the forefront of modern naval architecture. The result is a versatile platform that squarely meets the needs and expectations of today's express cruiser, yet retains the thrilling go-anywhere ethos of the Gran Turismo concept.

With dramatic increases in exterior useable space and a combination of expertly designed areas to accommodate every activity from sunrise to sunset, the new Gran Turismo 50 offers all of the comforts of "villa living" and the ability to quickly convert from express cruiser to anchorage mothership with the press of a few buttons.

Quintern launches upgraded 550 & 610 Territory Legend models

Photo credit: Quintrex

One of Australia's favourite alloy boat brands, Quintrex, has unveiled the latest evolution of its Territory Legend lineup the 550 and 610 models now tougher, smarter, and more feature-packed than ever before.

Quintrex has officially lifted the covers on the newly updated 550 and 610 Territory Legend models revised from bow to stern to meet the demands of anglers who push further, fish harder, and demand more from their boat.

A modernised console improves ergonomics at the helm, offering better sightlines, more storage, and room for your electronics and accessories. On the 610 model, cleaner pressings bring a sleeker, more refined finish, while new decals provide a bold, refreshed look. The addition of rubber gunwale inserts delivers extra durability when pushing into tight spots or docking. The redesigned casting platform now features integrated drainage channels to help keep the deck dry and functional. Comfort has also stepped up a notch, with reimagined seating and new upholstery that offer all-day support and marine-grade toughness.

World's first fully solar-powered tender hits market

Sunpower Yachts, based in Australia, has unveiled what is claims to be the world's first 100% solar-charged tender. The Solar-eJET 3.3m is designed to charge directly from a yacht's solar energy system, meaning the boat requires no fuel or cables for shore power hookup.

The forward-thinking boatbuilder was founded in 2018 and makes a wide range of electric and solar-focused vessels including cruisers, yachts, sailboats, power catamarans, and tenders.

The inflatable Solar-eJET 3.3m is engineered for direct integration with Sunpower's existing solar energy system. When stowed in the tender bay of its mothership, an embedded charging port allows the tender to plug directly into the yacht's solar charging station. The intelligent interface measure's the tender's battery capacity and charges as needed without requiring a cable plug-in, a separate charger, or other hardware. When ready for use, simply detach the tender from its storage position and use accordingly.

Weighing only 105 kg (230 lbs) excluding the battery, with an LOA of 3.3 m (10'10") and a beam of 1.74 m (5'6"), the Solar-eJET is outfitted for a 10 kWh lithium battery pack with 22 kW of jet drive propulsion, or the equivalent of roughly 30 horsepower. The boat has room for up to five passengers with a max weight capacity of 425 kg (930 lbs).

Malibu Boats unveils 'Complete & Compact' Wakesetter 22 LSV for 2026

The new design, billed as the most complete and compact wake boat ever built, will combine advanced technology, an upgraded layout, and enhanced comfort to offer a compact package without sacrificing performance or comfort. The 22 LSV will slot in behind Malibu's existing 23, 25, and 26 LSV models -- the 23 LSV being the best-selling towboat of all time. With an LOA of 21'11" and an 8'6" beam, the new 22 LSV will offer a more compact, easily trailerable, and easily storable package for riders working with a size limit.

The 2026 Wakesetter 22 LSV will incorporate Malibu's exclusive Power Rise & Slide Helm Seat, an advanced 15.8" touchscreen Command Center, upgraded three-coil wireless phone chargers, and new design elements specifically engineered for ride quality and easy operation. Available with Malibu's customizable Wake Plus or Diamond hulls, the 22 LSV produces wakes and waves to accommodate all styles of riders. Other perks include the Ascend Tower with a latch design, LED lights, and anchor lights.

H-Line Shipping takes delivery of a new pure car and truck carrier (PCTC)

The newbuild has an LOA of 200 metres, a beam of 38 metres, a draught of 9.2 metres, and 14 vehicle decks that can accommodate a total of 8,600 CEUs. Five of the decks are liftable to permit the transport of taller cargo such as trailers and buses.

An IMO Tier III dual-fuel propulsion system that can also run on LNG will deliver a service speed of 19 knots.

The PCTC is equipped with systems that enable intelligent management of the navigation systems, the engine room, and the cargo decks, thus improving operational efficiency and safety. The vessel also boasts energy-saving and emissions-reduction technologies, such as an optimised hull design and main engine exhaust heat recovery systems.

New vessels review

Forest River appeals to entry level buyers with new pontoon boat line

Indiana, US-based boat builder Forest River Marine aims to capture share in the entry level of the US pontoon boat market with the launch of a new boat brand packaged to appeal to first-time buyers.

The model line includes cruising and fishing models in a choice of 20ft or 22ft lengths. Cruising models feature an interior layout consisting of lounge seats in all four corners and twin bucket seats amidships for the captain and companion, while fishing models replace the twin stern lounge seats with twin pedestal-mounted fishing seats which share a mid-beam fishing station with rod holders, rod storage and a live well.

All models are rated to accept outboards to 115 horsepower, with 20ft boats to be marketed with a MSRP of US$25,999 equipped with a Suzuki 50hp four-stroke. The 22ft models are offered with maximum power at an MSRP of $29,999.

McAllister Towing's newest harbour tug hits the water

New York-based, family-owned vessel operator McAllister Towing and Transportation Company recently held a launching and naming ceremony for a new harbour tug. Gerard McAllister was built Washburn and Doughty Associates of Boothbay, Maine. The tug belongs to the same series as Jane McAllister, which was also built by the same yard and handed over to McAllister Towing in 2023, and Isabel McAllister, which was launched earlier this year.

The propulsion arrangement will consist of two US EPA Tier IV diesel engines that each produce 3,385 hp (2,525 kW) and drive fixed-pitch rudder propellers. This configuration will enable the tug to achieve a bollard pull of 84 tons and a speed of 15 knots.

Axopar launches new 38 range and announces BRABUS expansion for 2026

Axopar will launch the Axopar 38 Range, a new mobile app for owners, and expand their BRABUS premium lineup in 2026. The company is primed for growth with the launch of a host of new products and features. The biggest announcement will be the launch of the all-new 38 Range series of boats. The first model, the Axopar 38 Cross Cabin (XC), will debut at BOOT Düsseldorf in January 2026. Three more new models are set to follow in succession.

The Finland-based boatbuilder will also be expanding their partnership with the BRABUS performance line across their fleet, as well as launch a new mobile app for Axopar boat owners.

Cockwells launches Duchy 25

Taking her place as the dynamic little sister of the company's acclaimed range of Duchy Motor Launches, the new Duchy 25 fuses style, sophistication and versatility. She may be smaller and lighter than other Duchys, with a slightly shorter and shallower hull, but she features a spacious open-air cockpit with plenty of room for up to six guests to experience dreamy days afloat on rivers, estuaries or coastal seas.

Weighing in at just 2.5 tonnes, the Duchy 25 can be easily towed by road trailer to a variety of cruising destinations, whether to meander along the River Thames, cruise across the French Riviera or traverse the Italian lakes.

An outboard engine also provides even more space in the ample cockpit for guests to relax and take in 360-degree views, whether dining together, comfortably seated on waterproof upholstery around a removable varnished table, or socialising, while reclining on a luxurious day bed.

Aquila Power Catamarans enters sailing market

Aquila Power Catamarans has entered the sailing catamaran market with three new models: the 44ES, 50ES, and 63ES.

"This expansion represents our next phase as a global boat manufacturer," says Frank Xiong, CEO of Sino Eagle Group, which produces the Aquila line in China. "We've proven ourselves in power catamarans, and now we're leveraging the deep sailing experience of our team to enter this market with purpose and precision."

The new sailing catamarans feature bridge-to-bow stairs, clean contemporary lines, and a fixed forward cockpit designed as a social area. Cabins include private entrances, ensuite heads, and walk-in showers, while the salon and galley offer panoramic windows and a spacious bar area. Optional features include Aquila's patented tender crane.

Browse back issues at https://bit.ly/2WQTosu

Our quarterly magazine is an essential read for anyone engaged in the wider maritime world. Each edition contains up to 30 articles delving into specialist subjects, regulation updates and safety briefings. It's a free and easy way to keep up with today's marine news.

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Upcoming IMO requirements for lifting appliances

DNV has provided an overview of the upcoming IMO requirements for lifting appliances, outlining obligations that will apply to newbuildings, retrofits, and existing fleets from 1 January 2026 onward.

According to DNV, new IMO requirements for lifting appliances will apply for vessels with a safety construction certificate (CCC, CSSC or PSSC). To comply, cranes, moveable decks, and ramps lifted with cargo, as well as other lifting appliances, must meet the following criteria:

- Be designed, constructed and installed/certified according to the rules of the vessel's class society or equivalent standards (non-certified appliances installed prior to 1 January 2026 may alternatively be covered by a "Factual statement")
- Undergo annual thorough examination and load testing every 5 years. Occasional load test and/or examination shall be performed when deemed necessary, e.g. to verify a repair
- Be subject to regular maintenance and inspection

Note: Flag administrations may have exempted lifting appliances with an SWL below 1 tonne. These requirements apply upon delivery of a newbuilding, upon installation of new lifting appliances or latest upon first renewal survey after 1 January 2026.

Newbuildings delivered after 1 January 2026
Upon delivery of the newbuilding, any lifting appliances fitted shall follow the new IMO requirements independent of the date of the contract. An IMO electronic cargo gear book shall be issued, stating compliance as described above.

Retrofit of new lifting appliances after 1 January 2026
Any lifting appliances installed on or after 1 January 2026 will require compliance with the new rules and may trigger implementation of the IMO cargo gear book for the vessel.

Periodical surveys for existing fleet
For a fleet in service, the transition to the new regime will normally apply upon the first class renewal survey completed on or after 1 January 2026.

The periodical surveys and tests are similar to what is required for ILO152, or the cargo gear book, today, but the scope has now been extended beyond the application for ILO152, which is limited to lifting appliances and ramps handling cargo. Provision cranes, engine room cranes and other lifting appliances or moveable decks and ramps lifted with cargo will need to be included in the cargo gear book.
Note: Lifeboat davits, life raft and rescue boat launching appliances are excluded, unless they have a dual purpose, e.g. as a provision crane.

Harmonized surveys
Certificates issued after load testing and thorough examinations confirm compliance with SOLAS Regulation II-1/3-13. To maintain harmonization after implementation, we have aligned the new IMO survey requirements with class surveys. As a result, lifting appliance surveys will be scheduled accordingly and, by default, included in survey requests for main class annual and renewal surveys. This approach minimizes the number of vessel visits and aligns activities with docking schedules, enabling more efficient load testing and timely repairs.
Note that SOLAS Regulation II-1/3-13 also includes requirements for anchor handling winches which typically apply to offshore service vessels and anchor handling tugs used to install, arrange, shift and remove anchors of offshore vessels/units and subsea installations.

Recommendations
- Report SOLAS-relevant lifting appliances and movable decks or ramps lifted with cargo, missing in the current DNV ILO/OLA scheme, via DATE for addition to the new DNV IMO scheme.
- Order SOLAS-relevant lifting appliances and movable decks or ramps lifted with cargo, to be installed on board as of 1 January 2026, with design approval and a product certificate from the vessel's class society and with a SOLAS-conform rigging plan.

Prepare for the first renewal survey after 1 January 2026.

New IMO Requirements for reporting loss of containers at sea

These changes require Masters to report both the loss and observation of containers without delay, ensuring timely communication with nearby vessels, coastal States, and flag Administrations. The amendments aim to improve navigational safety, environmental protection, and the traceability of lost containers.

Regulation V/31 –
Danger Messages

- The master of every ship involved in the loss of container(s) shall report the incident without delay to ships in the vicinity, to the nearest coastal State, and the flag State.
- If the ship is abandoned or unable to report, the company (as defined in SOLAS IX/1.2) shall assume the reporting obligations.
- The flag State, once informed, shall report the incident to the IMO via GISIS (Global Integrated Shipping Information System).
- The Master of every ship observing drifting containers is required to report the incident as well to the ships in the vicinity, to the nearest coastal State, and the flag State.

Regulation V/32 –
Information Required in Danger Messages
For container losses, the report shall include:

- Type of report: Loss of freight container(s) from a ship
- Ship's identity (IMO number/Name/Call Sign/MMSI), time (UTC), and position of the incident (actual, estimated or discovered)
- Number or estimated number of containers lost
- Whether dangerous goods are involved (including UN number, if known)
- Description of containers (e.g. size, type, whether empty)
- Any additional relevant information such as cargo spill, weather, sea state and estimated drift.

A follow-up report shall be sent once the number of lost containers is verified, clearly marked as "final".

For observations of drifting containers, similar information shall be reported, but in this instance as type of report "Observation of freight container(s) drifting at sea.

Amendments to the International Code for Ships Operating in Polar Waters (Polar Code)

The Maritime Safety Committee (MSC) of the International Maritime Organization (IMO) at its 107th session adopted the resolution MSC.538(107) on 8 June 2023 to amend the Polar Code to mandate navigation and voyage planning requirements for certain non-SOLAS ships operating in polar waters. The amendments will enter into force on 1 January 2026.

The amendments to Polar Code will be applicable to the following types of non-SOLAS ships on all voyages within polar waters:

(a) fishing vessels of 24 meters in length overall and above;
(b) pleasure yachts of 300 gross tonnage and upwards not engaged in trade; and
(c) cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage.

Lifeboat ventilation

From 2 January 2026, new regulations will mandate ventilation for all new totally enclosed lifeboats installed on ships, with a minimum required rate of 5 m^3/h per person. The new requirements, adopted by the International Maritime Organization (IMO), are a result of incidents where high temperatures and carbon dioxide levels in enclosed spaces compromised crew safety.

New requirements for totally enclosed lifeboats
The amendments to the International Life-Saving Appliance (LSA) Code apply to totally enclosed lifeboats installed on or after January 1, 2029. All totally enclosed lifeboats must now provide:

- A minimum ventilation rate of 5 m^3/h per person, for the number of people the boat is certified to carry.
- A 24-hour runtime for the ventilation system, independent of the vessel's main power.
- An independent power source, such as a dedicated battery or the lifeboat's engine. If the engine is used, a sufficient fuel supply must be provided. The radio batteries cannot be used as a power source.
- Interior controls to operate the ventilation system from inside the lifeboat.
- Watertight closures for ventilation openings, operable from inside to prevent water ingress.

Ventilation for partially enclosed lifeboats and liferafts
Following the adoption of the regulations for totally enclosed lifeboats, the IMO began developing similar ventilation requirements for partially enclosed lifeboats and liferafts.

- The draft requirements propose a long-term CO_2 concentration below 5,000 ppm, potentially requiring an active ventilation rate of 5 m^3/h per person.
- These draft amendments are expected to be finalized in 2026, with potential application to new lifeboats and liferafts installed on or after 1 January 2032.

Maintenance and testing updates
Additional maintenance and inspection requirements that come into force on January 1, 2026, will also affect the ventilation systems of lifeboats.

- Enhanced maintenance standards for lifeboats and rescue boats, adopted via Resolution MSC.559(108), include specific inspection and testing of the ventilation systems during annual thorough examinations.
- The amendments reinforce the need for certified service providers to conduct these checks.

Key amendments affecting fire safety

Amendments to SOLAS will enter into force on 1 January 2026, introducing a ban on perfluorooctane sulfonic acid (PFOS)-containing fire-extinguishing media, enhancing fire safety in passenger and cargo ship vehicle spaces, adding fire detection and alarm systems to control stations of cargo ships, and requiring specific fire protection in Ro-Ro passenger spaces. These changes were adopted by the IMO Maritime Safety Committee (MSC) during its 108th session.

PFOS Prohibition

- The use and storage of fire-extinguishing media containing PFOS are prohibited from January 1, 2026, impacting both fixed and portable systems.
- Ships constructed before this date must not use or store PFOS-containing media above a concentration of 10 mg/kg.

Vehicle and Special Category Spaces

- There are new and enhanced fire safety requirements for passenger ship vehicle spaces, special category spaces, and Ro-Ro spaces (open and closed).
- The amendments also introduce new requirements for weather decks used for vehicle transport.
- Compliance deadlines are in place for these new requirements, especially for passenger ships built before January 1, 2026.

Fire Detection and Alarms

- Cargo Ships: Control stations and cargo control rooms on cargo ships built on or after January 1, 2026, must be fitted with a fire detection and alarm system.
- Passenger Ships: For passenger ships, fixed fire detection and alarm systems are required in service spaces, control stations, and accommodation areas, though not in private bathrooms or galleys.

Oil Fuel Safety
A new regulation in Chapter II-2 requires that oil fuel used on ships must not compromise the ship's safety, machinery performance, or the health of personnel.

Dangerous goods transport

The most recent IMDG Code changes are from Amendment 42-24, which became voluntary on January 1, 2025, and will become mandatory internationally on January 1, 2026. Key changes in Amendment 42-24 include new UN numbers and updated classifications for sodium-ion and lithium-ion batteries and vehicles, revised packing instructions, and the requirement to include subsidiary hazards on stowage plans. Businesses should update their processes and documentation to comply with these new regulations.

Implementation Timeline
2026: Amendment 42-24 becomes mandatory internationally.

Key Changes
- Battery and Vehicle Classification:
- New UN entries (e.g., UN 3556, UN 3557, UN 3558) for vehicles powered by lithium-ion, lithium-metal, and sodium-ion batteries.
- Revised classification criteria for lithium cells and batteries to ensure more accurate risk identification.
- Clarification that damaged lithium batteries must be handled under specialized instructions.

Stowage Plans:
A new requirement mandates that stowage plans must record both the primary and subsidiary hazards for dangerous goods.

Dangerous Goods List (DGL):
- Over 60 revisions to existing entries, including the addition of 11 new UN numbers.
- Changes to existing entries, such as the reclassification of UN 1891 ETHYL BROMIDE from Class 6.1 to Class 3 with a 6.1 sub-hazard.
- Removal of the exemption for carbon (UN 1361) from the IMDG Code by removing Special Provision (SP) 925.

Packing Instructions:
- More than 50 updates to existing packing instructions.
- Introduction of new packing instructions (P303 and P912).

UN High Seas Treaty to enter into force starting January 2026

The UN High Seas Treaty looking to safeguard marine biodiversity on the high seas has now met the required 60 ratifications for entry into force, clearing the way for it to take effect in January 2026.

Morocco and Sierra Leone joined the list of States ratifying on Friday, becoming the 60th and 61st parties to the pact. The treaty, formally known as the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ agreement), was adopted by UN Member States in June 2023 after nearly two decades of negotiations.

What is the High Seas Treaty?
The UN High Seas Treaty aims to protect marine biodiversity in areas of the ocean that lie beyond national jurisdiction (the "high seas"), which make up about two-thirds of the world's ocean.

Why it matters
- The high seas are international waters, not owned by any single country, and have historically been difficult to regulate.
- They are vital for regulating the Earth's climate, supporting fisheries, and maintaining biodiversity.
- But they've been threatened by overfishing, mining, pollution, and climate change.

Main goals of the treaty
- Conservation and sustainable use of marine biodiversity on the high seas.
- Creation of marine protected areas (MPAs): allowing countries to designate and enforce protected zones in international waters.
- Regulation of resource exploitation: ensuring fair sharing of potential benefits from marine genetic resources (e.g., from deep-sea organisms that might have medical or biotech applications).
- Environmental impact assessments (EIAs): requiring activities in the high seas to be evaluated for potential harm.
- Capacity building and technology transfer: supporting developing countries so they can also benefit and participate in ocean research and management.

Revised IMO guidelines for means of embarkation and disembarkation

New safety guidelines requiring crew to wear life jackets and safety harnesses when rigging ladders and gangways will become effective from 1 July 2026 according to Lloyd's Register.

The International Maritime Organisation (IMO), through MSC.1/Circ.1331/Rev.1, has revised the following: Guidelines for the Construction, Installation, Maintenance and Inspection/Survey of Means of Embarkation and Disembarkation to bring them in line with the latest international standards and introduce clearer definitions and safety practices.

The applicable ISO standard version for each type of means of (dis)embarkation is dependent on the date of equipment installation and the ship's construction date, Lloyd's Register points out.

The applicability of these standards is summarised in the table below:

Installation Date	Ship Construction Date	Recommended International Standard*	Equipment
Before 1 July 2026	On or after 1 January 2010	ISO 5488: 1979 ISO 7061: 1993 ISO 7364: 1983	Accommodation ladders Aluminium shore gangways Accommodation ladder winches
On or after 1 July 2026	On or after 1 January 2010	ISO 5488: 2015 ISO 7061: 2015 or 2024 ISO 7364: 2016	Accommodation ladders Aluminium shore gangways Accommodation ladder winches
On or after 1 July 2026	Before 1 January 2010	† ISO 5488: 1979 or 2015 † ISO 7061: 1993, 2015 or 2024 † ISO 7364: 1983 or 2016	Accommodation ladders Aluminium shore gangways Accommodation ladder winches

* and/ or national standards and/or other requirements recognised by the Administration.

† insofar as is reasonable and practicable.

Image credit: Lloyd's Register

New definitions

"Installed on or after 1 July 2026" means the date of: ship building contract or, in the absence of contract, the keel laying, or contractual date of equipment delivery or, in its absence, the actual delivery date of the equipment to the ship.

"Safety Net" is a net which is rigged between the ship's side and the means of (dis)embarkation to prevent a person from falling into the water or onto the quayside from a means of (dis) embarkation.

Mandatory safety practices

It has become mandatory for the crew to wear life jackets and safety harnesses while rigging the accommodation ladder, gangway and the safety net.

The revised guidelines have also introduced the possibility to use "side nets" on ladders as alternatives to a "safety net". A safety net is not required if the hazard of falling through the sides of the means of embarkation and disembarkation is adequately mitigated by a top railing of rigid construction that is at least 1m high and a "side net" is rigged between this railing and the base of the accommodation ladder, including its upper and lower platforms.

The safety net and/or side nets must be regularly checked and maintained and, if deemed necessary, be replaced. They should be properly stored in ventilated places, avoiding sunlight and chemical contamination.

Testing of ladders and gangways

MSC.1/Circular.1331/Rev.1 includes amendments to clarify that:

- The five-yearly testing of accommodation ladders and gangways are done statically using the maximum working load.
- For the five-yearly testing of accommodation ladders, the winch should be operationally tested by raising and lowering the unloaded accommodation ladder.
- The tests should be carried out with the ladder or gangway in the horizontal position, and the accommodation ladder should be suspended by the wire(s) and supported by the winch.

Shipowners, ship operators, ship masters and officers, as well as manufacturers, are advised to familiarise themselves with the new guidelines and to train and instruct the crew accordingly.

Review of Maritime Transport 2025 Report published by UNCTAD

Rebeca Grynspan, UNCTAD secretary-general

In her foreword to this year's Review of Maritime Transport 2025 report, UNCTAD secretary-general writes as follows:

Global maritime transport has entered uncharted waters.

Not since the closure of the Suez Canal in 1967 have we witnessed such sustained disruption to the arteries of global commerce. Ships that once transited the Red Sea in days now sail for weeks around the Cape of Good Hope. Freight rates that were relatively stable for years now swing wildly from month to month. Supply chains we thought were resilient have proven fragile.

But this is not simply a story of disruption. As this year's Review of Maritime Transport documents, it is a story of transitions – technological, environmental, geoeconomic – converging at a speed that demands fundamentally rethinking how maritime transport operates.

Consider what we face today. The Suez Canal operates below normal capacity, at around 70 per cent below average tonnage transit levels in 2023. This year's developments around the Strait of Hormuz – a passage for about 34 per cent of global seaborne exports of oil – have drawn renewed attention to the need for sustained dialogue on maritime security. Disruption to port operations has also become chronic, not episodic.

These factors are already reshaping maritime trade patterns. While flows continued to expand by 2.2 per cent in 2024 over 2023, they have done so at a moderate pace – below the average recorded over the 20 years from 2003 to 2023. More telling still: maritime trade now travels significantly longer distances, with the average voyage haul having increased from 4,831 miles in 2018, to 5,245 miles in 2024, as security concerns redraw the map of global shipping. Seaborne trade in ton-miles increased by 5.9 per cent in 2024 on 2023, close to three times the increase in the volume of maritime trade. Distance is no longer geography; it is geoeconomics. Yet alongside these immediate pressures, deeper shifts are reshaping the sector. The Netzero Framework of the International Maritime Organization, set to be considered for adoption in October 2025, could reshape even further how ships are built, fuelled and operated. The orderbooks already tell this story: alternative fuel vessels now represent more than half of the ship tonnage of new orders, though over 90 per cent of the active fleet by tonnage still runs on conventional fuels. This gap between ambition and reality defines our challenge.

Meanwhile, automation and digitalization advances at breathtaking pace. Smart ports often process containers in minutes, not hours. Artificial intelligence systems predict congestion before it happens. Autonomous vessels are starting to move from concept to prototype. But each digital advance creates new vulnerabilities – cyberattacks on shipping are also on the rise. We are building tomorrow's infrastructure on today's security and regulatory foundations. Who bears these costs? Developing countries now budget for freight costs that can change more in a week than they once did in a year. Small island developing States watch their import bills soar while their export competitiveness erodes. Landlocked developing countries sometimes pay transport costs three times the global average – and see that gap widen with each disruption. This cannot be our future.

The transitions ahead – to zero carbon, to digital systems, to new trade routes – must be just transitions. They must empower, not exclude. They must build resilience, not deepen vulnerability. And they must recognize that maritime transport is not merely ships and cargo; it is 1.9 million seafarers, most of whom come from developing countries and whose skills need updating, whose rights need protection, whose contribution needs recognition. UNCTAD stands ready to support this shift. Through research that illuminates, technical cooperation that builds capacity and consensus-building that brings all voices to the table at the global, regional and national levels, we work to ensure that these transitions leave no one behind.

This Review offers more than data and analysis. It offers a framework for action. Sustainable and resilient practices that can withstand tomorrow's shocks. Regulatory updates that match the new technological reality and sustainability standards. Decarbonization pathways that are both ambitious and achievable. Investment in people, not just infrastructure. Trade facilitation that turns borders from barriers, into gateways.

Maritime transport has weathered disruptions before – wars, closures, economic crises. But never have so many transitions converged so quickly. The sector will adapt; it always does. The question is whether that adaptation will be managed or chaotic, inclusive or divisive, sustainable or merely survivable. This Review of Maritime Transport provides the evidence base for choosing wisely. The work begins now.

End of foreword

The United Nations Conference on Trade and Development (UNCTAD) has published its detailed Review of Maritime Transport 2025 report, in which it explores the global maritime trade environment that has been particularly marked by volatility, rerouted flows and uncertainty.

According to the report, maritime trade volumes reached 12,720 million tons in 2024, growing by 2.2 per cent, exceeding the 2013–2023 average (1.8 per cent). This suggests positive momentum, yet the growth rate lagged the 2003–2023 average (2.9 per cent), indicating a longer-term deceleration in the expansion of global volume. However, in 2025, global maritime trade continues to navigate an environment marked by volatility, rerouted flows and uncertainty.

"Not since the closure of the Suez Canal in 1967 have we witnessed such sustained disruption to the arteries of global commerce," said Rebeca Grynspan, Secretary-General of UN Trade and Development (UNCTAD).

Key highlights made in the report:

- In 2025, global maritime trade is operating in a volatile and uncertain environment, with shipping routes increasingly rerouted.
- Persistent geopolitical tensions and trade policy changes have altered shipping patterns, with many routes redirected away from traditional chokepoints.
- Containerized trade is expanding, especially along extra regional corridors.
- East–West routes remain dominant, anchored by Asia's central role in global logistics.
- Supply chains are increasingly diversified, with more complex origin and destination networks emerging to manage rising uncertainty.
- Energy-related trade is undergoing a structural transformation.
- Longer hauls and redirected flows are affecting tanker demand.
- Trade in critical minerals, vital to clean energy transitions, remains concentrated in a handful of exporters.
- This concentration heightens exposure to strategic and logistical chokepoints.

GEOPOLITICAL TENSIONS AND DISRUPTED MARITIME CHOKEPOINTS

In 2024 and the first half of 2025, global shipping grappled with rapidly shifting operating conditions driven by trade policy shifts and tariffs, geopolitical tensions, ongoing disruption to critical shipping routes, intensified pressure on the shipping industry to decarbonize and a restructuring in global container shipping alliances.

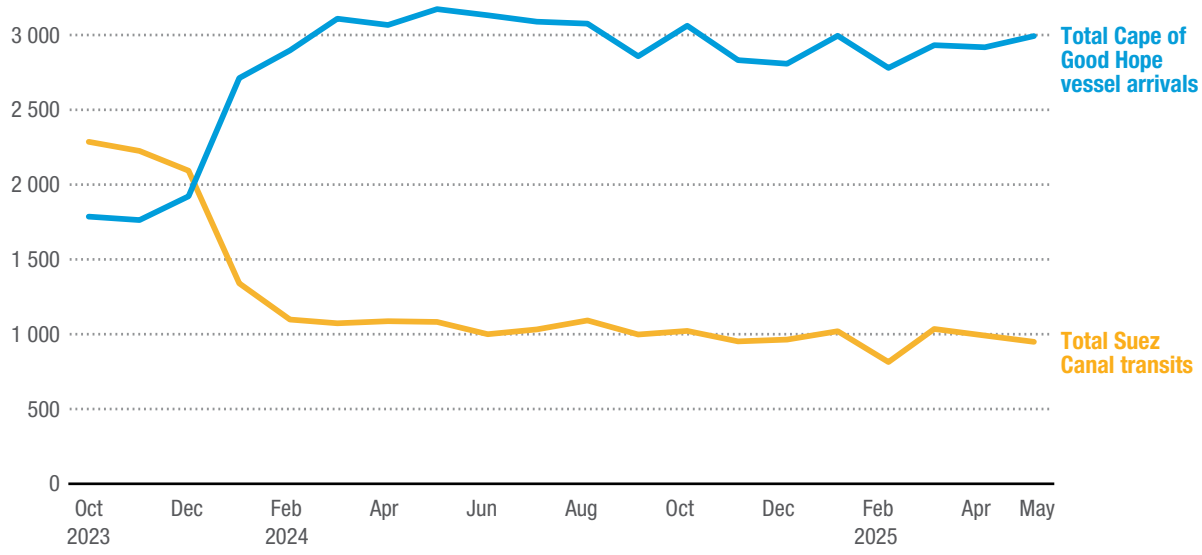
In addition, the sector faces strengthened environmental sustainability targets and regulations, advances in technology, fleet renewal needs, and continued uncertainty over the decarbonization and energy transition.

New ship capacity continues to be delivered, especially in the container segment, while trade growth in some markets has slowed. This is reviving

some concerns about a potential fleet capacity surplus and asset underutilization when distance-adjusted demand, which had absorbed surplus capacity over the past few years, eventually normalizes.

Ongoing uncertainty around navigation in the Red Sea has led to shipping avoiding the Suez Canal, with transit levels about 70% below 2023 averages as of May 2025. This has increased distance-adjusted demand due to rerouting around the Cape of Good Hope, which may ease if geopolitical tensions subside.

Figure II.1
Monthly ship transits and arrivals for the Suez Canal and Cape of Good Hope
(Number)



Source: UNCTAD calculations, based on data from Clarksons Research, 2025b.

The June 2025 conflict between Iran and Israel raised concerns over disruptions at the Strait of Hormuz, a vital chokepoint handling 11% of global maritime trade volume, including significant oil, LPG exports, and container traffic near Jebel Ali port.

Although no immediate shipping disruptions were seen by late June, risks remain high due to limited alternative routes and insufficient pipeline capacity. Potential changes in sourcing could increase voyage distances, costs, and fleet needs, with longer transit times possibly trapping ships and tightening supply in the region.

TRADE POLICY, TARIFFS AND PORT FEES

Since January 2025, new trade tariffs and shifts in U.S. trade policy have increased volatility and uncertainty in global shipping. These changes could significantly impact shipping demand, fleet capacity, networks, and port operations, depending on responses from other countries. Similar to the 2018 U.S.-China tariff escalation, countries like Canada, India, Mexico, Thailand, and Vietnam benefited from rerouted trade flows, reflecting global value chain reconfigurations.

Despite these shifts, China remained the main source of scheduled container capacity in 2025. Additionally, the U.S. is pursuing a domestic-focused industrial policy to boost national shipbuilding and maritime transport, including new port fees targeting certain ships to counter China's dominance in global maritime logistics and shipbuilding.

SHIP RECYCLING LEVELS TOUCHED HISTORIC LOW

Ship recycling levels remained low in 2024, matching 2023's 6.3 million gross tons or 0.25% of the global fleet, with bulk carriers making up the largest share of scrapped tonnage. Recycling is expected to stay subdued short-term but may recover as market conditions improve, second-hand prices drop, and fleet modernization accelerates amid an aging fleet. Bangladesh, India, Pakistan, and Türkiye dominated the market, accounting for over 91% of recycling, with Bangladesh and India leading. Limited recycling capacity in these countries, combined with increasing deliveries and aging ships, poses challenges for supply-demand balance and timely fleet renewal.

Furthermore, environmental regulations are tightening, highlighted by the Hong Kong Convention for safe, sustainable ship recycling, which came into force in June 2025.

Table II.7
Ship tonnage sold for scrapping, 2024

	Bangladesh (thousands of gross tons)	India (thousands of gross tons)	Türkiye (thousands of gross tons)	Pakistan (thousands of gross tons)	Denmark (thousands of gross tons)	Rest of the world (thousands of gross tons)	World total (thousands of gross tons)	Share (Percentage)
Bulk carriers	1 375.9	202.9	NA	400.6	NA	75.3	2 054.7	32.4
Container ships	203.5	584.9	113.6	14.5	NA	49.7	966.1	15.2
Offshore supply	187.2	289.6	14.9	1.1	310.7	9.1	812.5	12.8
Oil tankers	324.1	437.5	2.7	NA	NA	3.7	768	12.1
Liquefied gas carriers	400.6	289.9	NA	NA	NA	4.9	695.3	11
General cargo ships	214.2	128.7	135.2	38.5	5.5	43.8	565.9	8.9
Ferries and passenger ships	18.6	56.8	180.1	NA	0.8	10.7	267.1	4.2
Chemical tankers	2.1	46.6	NA	NA	NA	3.3	52	0.8
Other/n.a.	11.5	110.1	23	0.2	0.6	14.2	159.6	2.5
Total (thousands of gross tons)	**2 737.7**	**2 146.8**	**469.6**	**454.8**	**317.7**	**214.6**	**6 341.1**	**100**
Share (percentage)	**43.2**	**33.9**	**7.4**	**7.2**	**5.0**	**3.4**		

Source: UNCTAD calculations, based on data provided by Clarksons Research. See also https://unctadstat.unctad.org/datacentre/dataviewer/US.ShipScrapping.

Note: The table includes propelled seagoing vessels of 100 gross tons and above.

SHIPPING CARBON EMISSIONS CONTINUED TO GROW IN 2024

The International Maritime Organization midterm greenhouse gas reduction measures were agreed in 2025; their formal adoption may be imminent. Carbon emissions from shipping increased by an estimated 5 per cent in 2024 over 2023 driven by continued ship rerouting and increased speeds.

In the first half of 2025, a reduction in emissions was observed, probably reflecting slower sailing speeds, some operational improvements and the deployment of new ships. Vessel speed trends were mixed. Average container ship speeds increased, especially in the largest sizes as vessels sailed faster to maintain service schedules.

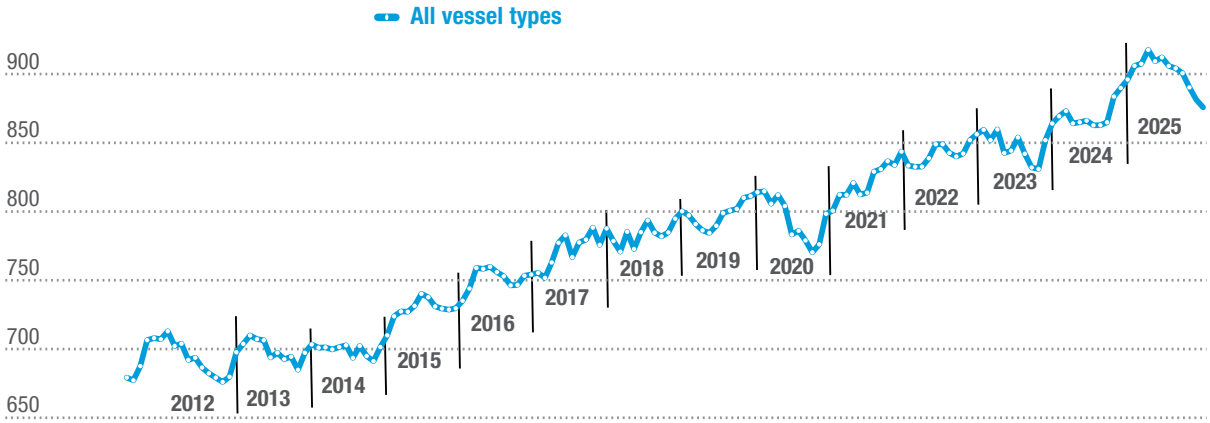
LNG carrier speeds also climbed in 2024 owing to disruption in key maritime chokepoints. For other vessel segments, speed generally remained steady or declined. In early 2025, speeds softened across fleet segments, with younger and more efficient ships running at slightly faster speeds compared to older units.

At the same time, the regulatory push for decarbonizing shipping continues. The IMO Marine Environment Protection Committee approved new midterm greenhouse gas reduction measures at its eighty-third session in April 2025.

The measures combine mandatory fuel intensity limits and a greenhouse gas pricing mechanism. They will be considered for adoption at an extraordinary session of the Committee in October 2025 before entering into force in March 2027, with a 1 January 2028 date of implementation.

While it is too early to assess the outcomes, the new measures would likely help to increase the supply of alternative fuels and lower their prices, both of which remain key hurdles to uptake. Revenues to be collected would provide rewards to ships for greenhouse gas emissions avoided by using zero- or near-zero emissions energy sources.

Figure II.13
Monthly annualized carbon dioxide emissions
(Millions of tons)



Source: UNCTAD calculations, based on AIS data from Marine Benchmark, 2025.

"The Net-Zero Framework of the International Maritime Organization, set to be considered for adoption in October 2025, could reshape even further how ships are built, fuelled and operated. The orderbooks already tell this story: alternative fuel vessels now represent more than half of the ship tonnage of new orders, though over 90 per cent of the active fleet by tonnage still runs on conventional fuels. This gap between ambition and reality defines our challenge," said Rebeca Grynspan.

THE GLOBAL FLEET CONTINUES TO AGE DESPITE NEW SHIP DELIVERIES AND ORDERS

Weighted by gross tonnage, the global fleet was, on average, 12.6 years old in 2024, a 3.2 per cent increase over 2023. By vessel count, the fleet was 22.2 years old or 1.8 per cent older than a year earlier. In 2024, the fleet was more than three years older than it was a decade ago.

Developing countries' share of dead weight ton capacity that is older than 20 years (21.1 per cent) was more than twice that of developed economies (9.3 per cent). Set against the current moderate orderbook measured as a proportion of the global active fleet and significantly low ship recycling levels, the pace at which the ageing fleet will be replaced remains uncertain.

Download the detailed report at
UNCTAD Review of Maritime Transport 2025

POLICY UNCERTAINTY AND CONTINUED DISRUPTION WEIGH ON THE GLOBAL TRADE OUTLOOK IN 2025 AND BEYOND

The outlook for global seaborne trade in 2025 is increasingly complex and marked by downside risks. Continued policy volatility, geopolitical tensions (including Red Sea insecurity, the war in Ukraine, and tensions in the Middle East), and softer macroeconomic conditions are weighing on confidence and demand. As a result, both merchandise trade and maritime transport activity are projected to slow, with the outlook shifting markedly since early 2025.

The global trade outlook for 2025 remains fragile, shaped by persistent policy uncertainty, subdued private consumption, and deteriorating investor sentiment. While global GDP growth is projected at 3%, merchandise trade is expected to rise only 0.1%, recovering from earlier contraction forecasts.

Temporary tariff pauses and early-year shipment surges have offered limited support, but renewed tariff measures and weak demand, especially from China, weigh heavily on trade flows.

Seaborne trade projections were revised down to 0.5% growth, with containerized trade expected to grow by 1.4%. Distance-adjusted volumes are set to rise just 0.3%, reflecting earlier rerouting effects. Fleet overcapacity, soft macroeconomic conditions, and structural shifts continue to suppress growth prospects.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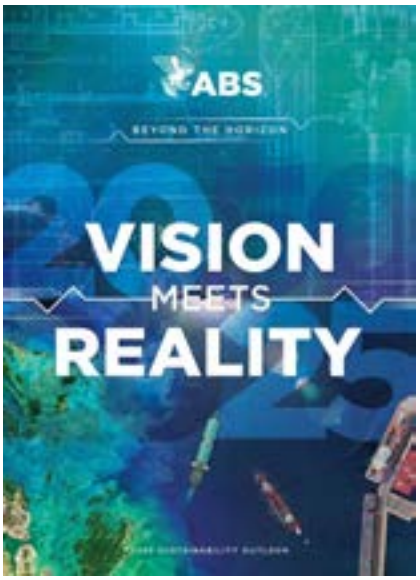
NEW marine reports and guides

ABS Chairman and CEO urges IMO to pause and rethink the Net Zero framework



"Shipping and the IMO are on different trajectories. There is no clear pathway for green fuel availability and scalability and infrastructure support. LNG and biofuels are mission critical to any success and should not be overlooked, over penalized or discarded in the Net Zero regulation. Quite frankly, achieving net zero for shipping by 2050 looks like a wildcard."

That was the message for the industry from ABS Chairman and CEO Christopher J. Wiernicki at the launch of the 2025 ABS Sustainability Outlook, Beyond the Horizon: Vision Meets Reality.

"The industry needs a framework but we need one that marries ambition with reality," added Wiernicki. "The mechanics need to be thought through. Right now, we are not where we need to be. Emissions remain 121 percent above the 2008 baseline, compliance costs are compounding, and the signals shaping investment - regulation, fuel pricing, penalties, availability, scalability - are moving at different speeds. The IMO needs to take a timeout. We need to get this right."

Launched at the ABS Sustainability Summit during London International Shipping Week, the seventh edition of the annual industry leading report shows that, despite progress on carbon intensity, shipping's absolute emissions continue to climb.

The report also highlights the sharply increasing cost of compliance, modelling how a typical vessel trading within the EU could see daily operating costs increase from approximately $15,000 in 2028 to around $45,000 by 2035. Meanwhile, LNG is over-penalized in the early 2030s although it underpins blue fuels, keeps hard-to-abate segments compliant, and buys time for zero-carbon fuels, provided methane slip is addressed and pathways to bio-/e-LNG are opened.

The Outlook, a compilation of ABS research and advanced analysis of progress with respect to sustainability challenges at sea and the readiness of the various solutions, highlights both the important bridging role of energy efficiency technologies and an impending retrofit capacity crunch at shipyards. Finally, the Outlook acknowledges the game-changing potential of nuclear propulsion technology beyond 2035.

Download the Sustainability Outlook at **https://bit.ly/3K5VP5x**.

Emerging battery technologies in the maritime industry volume 2

The American Bureau of Shipping (ABS) has published 'Emerging battery technologies in the maritime industry Volume 2'.
Understanding the latest advancements in battery technology trends is essential as the industry works to meet regulatory requirements.

Emerging Battery Technologies in the Maritime Industry Volume 2 addresses the limitations and advancements surrounding next-generation batteries, including:

- Lithium-ion
- Lithium-sulfur
- Lithium metal
- Silicon anode
- Sodium-ion
- Solid-state
- Redox flow

The publication highlights maritime applications for battery types while comparing key safety challenges that must be considered, like thermal runaway and gas generation, for current and emerging technologies.

Download the document at **https://bit.ly/4nnXWjk**.

NEW marine reports and guides

P&I Clubs facing mounting pressures as fires are an increasing driver of major losses

Lockton in its latest analysis of the marine Protection & Indemnity (P&I) market, highlighted mounting financial pressures on the International Group of P&I Clubs against a backdrop of geopolitical uncertainty and ongoing market volatility.

According to Lockton analysis, the 2024/25 policy year saw the clubs report a collective underwriting loss of $312m, reversing two years of surpluses and resulting in a net underwriting loss of $98m over the past three years.

Highlights

- P&I claims hit a ten-year peak – with fires and EV cargo emerging as new flashpoints for shipowners. Net claims reached $3.1bn, up 25% year-on-year and 16% above the five-year average. Several clubs have pointed to the rising threat of fires as an increasing driver of major losses. This reflects both the risks of an ageing fleet and the growing prevalence of mis-declared or hazardous cargo, including electric vehicles. In addition, inflationary pressure on materials and labour, combined with greater damages arising from modern port upgrades, continues to drive up the cost of claims.
- War-related incidents, particularly in the Red Sea, rerouting via the Horn of Africa, sanctions and tariff-related costs all contributed to higher claims. Longer voyages not only raise costs but also expose vessels to new risks, including weather delays and mechanical breakdowns.
- In terms of crew claims, suicide remains the leading cause of death at sea. The clubs continue to focus on loss prevention activities, including initiatives to support crew mental health and wellbeing.
- Pool claims make 2024/25 one of the worst years on record – and the true cost may be even higher 2024/25 is on course to be one of the worst pool claim years on record. Historically, pool claims have shown substantial back-year deterioration, meaning today's figures may understate the true cost. Assuming claims for 2024/25 deteriorate in line with historical trends, it will produce an overall total of approximately $775m. A lack of transparency around pool claims reporting only adds to uncertainty in the market.
- Despite rate hikes, P&I premium income is stuck in neutral – churn and higher deductibles blunt gains. Despite an average 5.2% general increase, total premium income remained flat at $3.96bn, held back by 'churn' – the replacing of older, higher-rated tonnage with new, lower-rated tonnage. Other potential factors include a growing willingness among members to trade rate rises for higher deductibles. This dynamic highlights the pressure on shipowners' operating costs, as many seek to manage premiums by absorbing greater risk themselves. Lockton's analysis shows churn has reduced rates by an average of 7.4% annually over the past decade, outpacing most general increases.
- Investment income remains supportive – but the tailwinds may ease. Clubs generated $711m in investment returns, offsetting some underwriting losses. With high interest rates in 2024/25, even conservative investment portfolios delivered meaningful gains. As central banks signal rate cuts through 2025, those exceptional returns may moderate, though the shift back into fixed income markets should provide a degree of stability.
- P&I clubs are well-capitalised – but reserve strength still below pre-2020 levels. Free reserves across the Group rose 4.81% to $5.96bn, with some clubs returning capital to members at the 2025 renewal. While this underlines the sector's resilience, reserves per tonne (used as a measure of a club's exposure) remain below pre-2020 levels. At 2026 renewal, Lockton expects clubs will return capital to the membership once again, albeit to a lesser extent than in 2025.

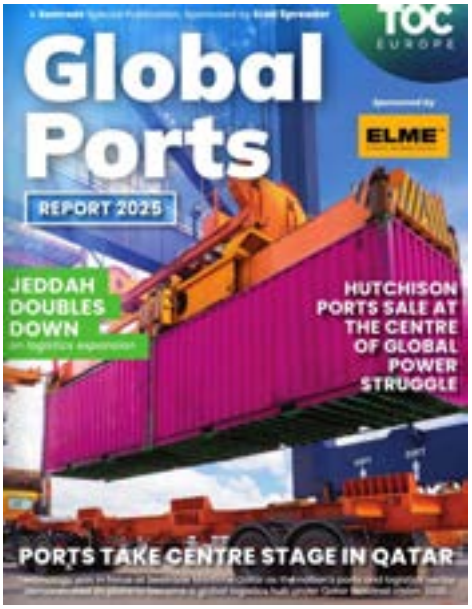
Read the online report at **https://bit.ly/3Vt6QAh**.

Fires at Sea, A New Landscape - Risk Mitigation Strategies for Safe Transport

The shipping industry struggles with safely transporting hazardous goods, particularly lithium batteries, due to rising fire risks, as evidenced by the 2022 Felicity Ace sinking and the 2025 Morning Midas fire, which forced 22 crew members to abandon ship. These incidents highlight issues like misdeclaration and inadequate handling protocols. The Global Shipping Business Network (GSBN) is addressing these challenges through collaboration with testing labs and carriers. At the 2025 SMDG plenary, GSBN presented strategies for automated data sharing and verification to improve risk management for lithium battery shipments, minimizing misdeclarations and enhancing safety through technology-driven transparency.

Read more on page 92 or download the whitepaper at **https://bit.ly/4nNIihE**.

Seatrade Maritime Global Ports Report 2025



This special report provides the complete analysis and in-depth insights into the future of global ports and serves as both a warning and a roadmap for the maritime and logistics industry. The Global Ports Report 2025 serves as both a warning and a roadmap for the maritime and logistics industry, highlighting that while progress is being made, the pace of change must accelerate dramatically to meet climate goals and digital transformation targets in this critical decade.

The report covers:

Easier to buy than to build?
Despite a far higher-than-average level of market turmoil impacting the container market since 2020, the appetite for M&A deals across the global container terminal sector has remained high. The recent spate of acquisitions across the sector by leading carriers is a means of improving market access, a strategy that has picked up pace due to fundamental shifts in market conditions.

Panama ports post strong performance regardless of the accusatory rhetoric from the US
Panamanian ports have finished 2024 posting strong growth of 15.1% in container volume, for the first time in three years. Last year's figures benefitted from the benefited transit restrictions during the 2023-2024 drought that forced liners to unload and load cargo on both sides of the waterway.

Critical Misalignment with Climate Goals
The Lloyd's Register Global Maritime Trends Barometer 2025 delivers a sobering verdict: ports are "critically misaligned" with the trajectory needed to achieve net-zero by 2050. Many major ports have made notable strides in advancing their decarbonisation efforts in recent years. However, most are still in the early stages of development, and progress beyond these key hubs remains minimal. As the push for greener maritime operations accelerates, the question remains - how quickly can the industry scale up its efforts?

Digital Transformation Lags Behind
Port digitalisation has advanced little compared to other areas, and smart port adoption remains limited. The smart port market shows a high compound annual growth rate. Realising its potential requires stronger collaboration among ports, shippers, and logistics providers to build integrated, interoperable systems. Investments in standardised data-sharing frameworks and technologies are necessary to ensure seamless digital connectivity across the maritime supply chain.

Green Corridors and Collaborative Solutions
A bright spot emerges in the growing number of green corridor projects, which connect ports and port clusters with zero-emissions trade lanes. These initiatives are pioneering advances in alternative fuel safety regulations and bunkering procedures through partnerships with shipping companies and authorities.

Real-World Transformation Examples
The report showcases tangible examples of progress, including:
SSA Marine's complete transition from propane to battery-electric forklifts at the Port of LA's Berth 55—reducing propane consumption by 44,000 gallons annually and cutting CO2 emissions by 264 metric tonnes per year.

Hamburg Port Consulting highlights how Maritime Single Windows and Port Community Systems deliver benefits beyond efficiency, potentially serving as foundations for regional peace and trade cooperation.

Jeddah's logistics expansion: Saudi Arabia's Red Sea port presses on with development plans after the completion of DP World's state-of-the-art South Container Terminal.

The Path Forward
Just-in-time port calls exemplify the transformative power of combined digital and energy transitions. By optimising vessel voyage speeds based on berth availability, these systems enable significant operational efficiency and emissions reductions both in port and at sea.

Read the report in full at **https://bit.ly/3VS4jQa**.

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How has *the Bayesian sinking* impacted the yachting industry?

Photo credit: Perini Navi

By Dea Jusufi, News Editor, BOAT International Media

In summer 2024, the unthinkable happened. On 19 August, the 56-metre Perini Navi sailing yacht Bayesian was hit by a freak weather incident while anchored in Porticello, Sicily, sinking in as little as 16 minutes. The disaster claimed the lives of seven people, including owner and British entrepreneur Michael Lynch and his 18-year-old daughter Hannah. More than twelve months on and the shockwaves are yet to settle, with questions still swirling over the cause of one of the worst tragedies in superyacht history.

Some early answers came in May from interim findings by the Marine Accident Investigation Branch (MAIB), which reports on marine accidents either involving UK vessels or occurring in UK territorial waters. They revealed that UK-flagged superyacht Bayesian "may have been vulnerable" to extreme weather, including "high winds" up to 87 knots.

Law firm Penningtons' partner Sarah Allan – which specialises in yacht law and yachting casualties – told BOAT International that it will be a while before a final report sees the light of day. "Our experience is that it can take years until reports are released," Allan says, "Firstly, because the MAIB wanted to wait for the wreck to be lifted for inspection, and secondly, because interested parties must first be notified and consulted with on the findings. There's a lot of work that goes on in the background in investigating such a significant casualty."

MAIB's former chief inspector of marine accidents, Stephen Clinch, concurs, claiming he would be "surprised" to see a final report released in the next few months. "This is not as straightforward as a fire, where you can climb on board and assess. A lot of work will be invested into the yacht's design, maybe doing tank tests or model tests, as well as an investigation into whether the approvals process was robust enough," he explains. "I think around 18 months would be a fair assumption."

There has been some speculation that an official report, when it comes, will prompt certain reforms, however Allan believes that a single incident is unlikely to bring about legislative change. "What we might see, depending on the findings on causation, is an official MCA guidance note." An apt example, Allan points out, is the 2023 note released by the MCA (Maritime & Coastguard Agency) following two flag state reports on yacht fires cause by lithium powered devices.

Whether legislation is forthcoming or not, Emma Deal, director of account management at MedAire, has observed a shift in the conversation. She believes that the sinking has underlined the need for stricter safety and security legislation, particularly when it comes to emergency response planning and the combination of immediate actions by the crew, communication with rescue services and deployment of safety equipment.

An international SOS company based in the UK and Phoenix, MedAire has accounts ranging from armed forces to cargo operation – and Deal has observed that the yachting industry has traditionally been "slow on the uptake" compared to other industries. "Safety and medical are so well regulated in industries such as aviation and commercial maritime. There's no question of how a crisis is going to be managed. Every little detail is taken care of, which is something you don't always see in yachting."

Clinch agreed that aviation was one of the first to fully embrace safety management systems, though qualified that the superyacht sector "is beginning to catch up".

When any accident happens, the spotlight is often directed at the crew. "I think there's a strong feeling of misrepresentation of what crew do when they're in an emergency situation," says Sam Thompson, director at management company JMS Yachting. "I know, being a seafarer myself, and having been in incredibly scary and dangerous situations, that the crew would have been doing their very best."

He continues: "I'm sure they'll find areas where the crew could have improved or done something different. But making decisions under incredible pressure is different from someone sat in an armchair, reviewing the situation months down the line. And I'm sure this [disconnect in thinking] has had a massive mental effect on the crew."

The link between mental health and safety is often overlooked, Deal believes. "We've had an emotional support package as part of our MedAire membership for about 10 years now. Mental health is an investment needed to make sure you have a safely run boat, with well-trained crew who are emotionally stable. It's an area which shouldn't suffer from cut costs, but it does."

Photo credit: Perini Navi

So, if policy is not forthcoming anytime soon, will the yachting industry see any changes? The prevailing thought seems to be that, without policy, any new measures will defer to individual judgement. "If there's no legislative change following Bayesian, then the incident will have little impact on the way things are run. Unless interest comes from the client," says Don Mckee, co-founder at superyacht recruitment agency YOA. "The priority should be educating owners, whether that is from the brokers, shipbuilders or project managers, so they're aware of the importance and benefits of adhering to safety systems on board."

Andrea Sacco, head of business development at Opacmare, which manufactures and designs yacht features including watertight doors and propeller-proof steps, thinks that Bayesian will result in more mindful owners. "I think now, [safety] will be a thought in the back of their minds, as well as the minds of new buyers. And the market will respond." The change will ultimately be a positive one, with the potential for investment in emerging safety technology, for example. "It may even become a competition of sorts, between owners. Whose yacht is safer?"

Of particular concern to owners is the impact of Bayesian on insurance premiums and the amount a person or business agrees to pay in exchange for coverage. But, as Pantaenius' Michelle Van der Merwe explains, the yacht's size means any dramatic increases are unlikely. "I think everyone thought it was going to have more of an impact than it did. Whilst it was a terrible tragedy, Bayesian was not a huge hull loss. There have been bigger."

While not a private vessel, one of the biggest and most infamous examples is the Costa Concordia, a cruise ship that foundered and partially sank in 2012 near Giglio Island, Italy. It took two years and approximately $1.2 billion to refloat the 290.2-metre vessel, which was completely scrapped in 2017. The resulting insurance claim used approximately 10 percent of the world's annual marine hull premiums volume, which sits between four to five billion British pounds. In comparison, preliminary reports place Bayesian's salvage costs at £15 to 30 million, though Van der Merwe admits it is "hard to speculate on the [consequent] insurance claim".

Instead, the industry is likely to see increased interest in liability coverage as owners become more aware of the "worst case scenario". Van der Merwe confirms that Pantaenius has had "quite a few questions about personal accident claims in the months since Bayesian's sinking".

Ultimately though, the MAIB report will be the deciding factor in determining any impacts on yacht insurance. "If it's a design fault, then there might be more surveys done on yachts in the same category and size bracket, even particular builders," explains Van der Merwe. "But if there are crew factors involved, then we'd probably see specific insurance clauses around training and qualifications."

Another complication is that the sinking of the Bayesian is a case with dual jurisdiction – between Italy, who is conducting the manslaughter probe and bulk of criminal investigation, and the UK, where the inquest into the victims' deaths is ongoing. It was at this inquest, held in Suffolk, where Superintendent Mike Brown of Suffolk Police confirmed that the UK Courts would be reliant on the Italian authorities and the MAIB for "further evidential material".

The tangible results – whether that be tighter legislation, an increase in safety procedures, or shifts in insurance – are likely to manifest years down the line. Until then, it appears any change will be incremental, case-by-case and at owners' discretion.

This article first appeared on the BOAT International website in August 2025 and is republished here with our thanks.

Statement from the Chief Inspector of Marine Accidents, Andrew Moll OBE

The interim report [published in May 2025] presents a desktop study of the facts as we know them. The study has reviewed the yacht's stability, the likely local weather conditions at the time, and the effect of that weather on the yacht. The findings indicate that the extreme wind experienced by Bayesian was sufficient to knock the yacht over. Further, once the yacht had heeled beyond an angle of 70° the situation was irrecoverable.

The results will be refined as the investigation proceeds, and more information becomes available.

The interim report is available to read at **https://bit.ly/3HpnVb4**.

Photo credit: Perini Navi

Identifying single points of failure is **key** to maritime safety

In an exclusive interview with Safety4Sea, the Transport Accident Investigation Commission (TAIC) of New Zealand, Chief Commissioner David Clarke, highlights a recurring theme in recent maritime inquiries - safety systems often fail to identify critical components lacking sufficient backup or redundancy. Where possible, safety should rely on engineering solutions rather than administrative controls. When rules and procedures are necessary, it's vital that personnel understand their purpose, otherwise there's a higher risk of non-compliance and unsafe workarounds.

Referring to past incidents investigated by TAIC – from the MV Rena grounding in 2011 to the more recent loss of control of the Shiling – Clarke emphasizes the need for regulatory changes. On one hand, updates to New Zealand's Maritime Transport Act are necessary to enable Maritime NZ to ban ships that show repeated poor performance in surveys, or port state control inspections. On the other hand, there are several issues the IMO must also consider. Overall, a shift in mindset is required. Senior executives in the maritime sector need to adopt a forward-looking, systems-level perspective on the factors that increase the likelihood of accidents.

SAFETY4SEA:
When it comes to incident investigation, what are the key challenges and what should be industry's top priorities?

David Clarke:
In any marine investigation, key challenges for investigators include:

- Ensuring the health and safety of our teams when deployed.
- Access to data and other information, including operators' maintenance systems. Human factors issues with fatigue, culture and language difference among multinational crew sometimes making it difficult to determine and assess decision-making and actions.
- Understanding how those responsible for safety prioritised required actions—and why.
- Top priorities for the marine industry to address the challenges of incident investigation include: ensuring the retention and accessibility of data; promotion of just culture; and a commitment to a systemic view of safety risks and their treatment.

SAFETY4SEA:
What are the key lessons learned from industry's recent accidents that have been investigated by TAIC? Have you identified any alarming trends/topics?

David Clarke:
A recurring theme in recent TAIC maritime inquiries is that those managing safety systems have not identified safety-critical components that lack adequate backup or redundancy – single points of failure. This has been evident in our investigations into the container ship Shiling, bulk carrier Achilles Bulker, and NZ ferry Kaitaki. In maritime operations, single-point-of-failure components pose disproportionate risks because their failure can cause total loss of a vital function. If a component isn't recognised as a single point of failure, it may be overlooked in reinstallations, maintenance schedules, or risk assessments. When failure happens, crews are often caught by surprise, and emergency response suffers. Proactive identification of all safety-critical components is essential to avoid incidents and accidents at sea. In addition, we see an over-reliance on administrative rules to address safety issues. Where possible, safety should be addressed with engineering solutions rather than administrative rules. Where engineering solutions are not appropriate or feasible and safety depends on rules and procedures, it's vital that the humans in the system understand why those actions are required. If they don't, there's a greater risk they'll side-step the rules and create unsafe workarounds.

SAFETY4SEA:
Following the recent TAIC investigation into the Shiling incident, you've called for substandard ships to be banned from New Zealand waters. What specific criteria would define a ship as 'substandard'?

David Clarke:
In the context of the Shiling, that vessel was substandard as, while the ship had the correct paperwork, we found that its safety systems fell short. Generator and engine-room alarms were substandard. The operator failed to inform the classification society about problems with unattended operation but retained the certification. Critical maintenance was overdue. The ship had a history of serious deficiencies—and more emerged after the incidents: water in the engine oil, a faulty data recorder, weak cyber protection. In short, it was certified, but unsafe. We've recommended that the Ministry of Transport consider legislating to give Maritime New Zealand the authority to ban certain ships. It would be up to Maritime NZ to define the criteria, but they could include non-compliance with New Zealand law and/or port state control requirements under the Tokyo MOU.

SAFETY4SEA:
How prevalent is the issue of substandard foreign-flagged ships operating in New Zealand ports?

David Clarke:
The Commission has identified this as a real concern given the significant potential human, environmental and economic consequences of marine accidents and incidents in New Zealand waters and the increased likelihood of such occurrences involving sub-standard ships. Maritime NZ has the detailed data which would indicate how widespread the issue is. They conduct port state inspections and have live access to the Tokyo MOU database, which tracks vessel detentions.


Kaitaki Interislander Ferry, New Zealand | Attribution: Ann Woolliams | Source: commons.wikimedia.org/wiki/ License: CC BY-SA 4.0


Achilles Bulker in Elliott Bay | Attribution: Joe Mabel Source: commons.wikimedia.org/wiki/ | License: CC BY-SA 4.0


MV Shiling being towed by Skandi Emerald | Attribution: Alan Winter Source: commons.wikimedia.org/wiki/ | License: CC BY-SA 4.0

SAFETY4SEA:
What kind of legislative changes would be required to give Maritime New Zealand the authority to ban these vessels?

David Clarke:
Currently, Maritime NZ has no power to ban ships based on repeated poor performance in surveys or port state control inspections. Each inspection stands alone unless specific deficiencies are flagged for correction. In contrast, Australia can ban ships for serious or repeated failings. Changes to New Zealand's Maritime Transport Act would be required to grant such powers to Maritime New Zealand and setting out the extent and limitations on the exercise of that power.

SAFETY4SEA:
What are the risks to New Zealand's maritime workforce and coastline posed by substandard vessels like the Shiling?

David Clarke:
Substandard ships pose serious risks—to crew, emergency responders, and the natural environment. Poor maintenance and faulty systems increase the chance of accidents, and when things go wrong at sea, they go wrong fast. The grounding and subsequent breakup of the container ship Rena in 2011 serves to illustrate the significant consequences of such accidents. While the Commission didn't find to be Rena to be substandard, the accident resulted in oil and cargo spills and a massive clean-up effort. It reportedly cost nearly NZ$50 million in public money, with much more spent on salvage. Tourism losses were reported to be NZ$1 million a day as cruise ships and visitors stayed away. Fishing and charter operators also suffered. Ports faced disruptions, supply chains were delayed, and insurance claims surged. Thousands of volunteers gave up time to help with the clean-up, and responders faced toxic hazards. And Māori communities experienced cultural harm to their kaitiakitanga (guardianship and protection) over Ōtāiti/Astrolabe Reef.

SAFETY4SEA:
What actions is TAIC recommending New Zealand take through the International Maritime Organization?

David Clarke:
To help prevent repeat failures and improve global safety, we've made several recommendations for New Zealand to advance through the IMO:

- Tighten the definition of critical equipment: The current definition is so broad that vital components—like the rubber diaphragms that failed on the Shiling—may be overlooked. A clearer, risk-based definition is needed.
- Require critical maintenance records to stay with the ship: When the Shiling changed hands, key maintenance history was lost for the new owner and those overdue diaphragms were never picked up. This issue has been raised internationally previously; it's time to address it.
- Promote global quality assurance for rudder systems: The Achilles Bulker lost rudder function due to poor quality assurance during reinstallation. IMO should promote better oversight of critical system repairs during installation, maintenance, and shipyard work.
- Require safety information on inflatable lifejackets: In one case investigated by TAIC, five passengers died inside the upturned hull of a capsized vessel. Their inflated lifejackets may have prevented escape. Lifejackets should carry warnings about inflation risks under obstructions and guidance on removal in water.

SAFETY4SEA:
How can international collaboration help strengthen port state control and vessel safety oversight?

David Clarke:
Under the Tokyo MOU, Maritime NZ determines inspection frequency and scope for vessels in New Zealand. The practical implementation is for MNZ to address—but international collaboration ensures consistency and sharing of intelligence, and helps keep substandard vessels out of the system.

SAFETY4SEA:
Are you satisfied with progress made towards improving safety performance within the maritime industry? What would you like to see up to 2030?

David Clarke:
There's always room for improvement. It's not just about fixing issues; it's about sustaining improvements to create a new normal that prevents repeat accidents.

SAFETY4SEA:
What is your wish list for the industry and/or regulators and all parties involved for the shipping industry to enhance safety culture onboard?

David Clarke:
We want recipients of our recommendations to act on them—promptly and with clear priorities. Recent TAIC recommendations focus on:

- Tougher regulatory tools
- Stronger incident response and SAR preparedness
- Improvements to safety gear and systems (e.g. fuel systems, lifejackets)
- Healthier operational culture (e.g. watchkeeping, fatigue, training)
- Better port sector oversight, standards, and collaboration across the stevedoring sector.

SAFETY4SEA:
If you could change one thing from your perspective, what this one thing would it be and why?

David Clarke:
That senior executives in the maritime sector take a forward-looking, systems-level view of what makes accidents more likely. Their job is to manage the complexity of people interacting with machinery. Safety rules only work if they're workable.

SAFETY4SEA:
What is your key message to industry stakeholders to enhance safety at sea?

David Clarke:
We must all learn from each incident and accident and apply those learnings so that there are no repeat accidents, ever.

This exclusive interview first appeared on the SAFETY4SEA website and is republished here with our thanks. Web: **www.safety4sea.com**

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Lessons from three generations of marine surveyors

By Austin O'Keefe
Local Lloyd's Agent,
Marine Surveyor and
Cargo Claims Specialist

When I think about what ties my career to my father's and grandfather's careers before me, one word comes to mind: **integrity**.

In this line of work, credibility is your currency. A surveyor's report can carry weight equal to millions of dollars in insurance liability, and if you're not willing to stand by what you've written, you have no business putting pen to paper. That's not to say you can't change your opinion upon receipt of further evidence; but in such instances the facts together with the surveyor's revised position should be presented promptly otherwise, there could be consequences, i.e., loss of trust, loss of clientele, and in worse cases, professional liability.

Another ingrained lesson - know your limits. A good surveyor isn't someone who claims to know everything. It's someone who knows when they've reached the boundary of their field and will recommend qualified experts or specialists. Calling for 3rd party professional evaluation isn't a weakness — it's part of protecting both the client and your own credibility.

Over the years, I've inspected an extraordinary range of cargo. Some of it common, some of it unusual, some of it once-in-a-lifetime. To name a few:

- Everyday goods in bulk: 3000 MT of Sugar, 20 MT of chocolate, 20 MT of candy, containers full of cream cheese, beer, wine, liquor, fruit juice, energy drinks, concentrates, coffee, tobacco, frozen French fries, garlic, seafood, and fresh fruit - berries, bananas, citrus and pineapples.

- Construction and industrial materials: large scale shipments of copper, fly ash, concrete, plywood, flooring, hardware, fasteners, paper products

- Steel products: Steel pipe, tubing, coils, plate, and structural material.

- Energy products: Oilfield equipment, transformers, heat exchangers, diesel and natural gas tanks, wind turbine blades ad solar farm components.

- Vehicles and heavy equipment: new automobiles, antique automobiles, bespoke luxury automobiles, commercial vehicles, motorcycles, jet skis, kayaks, aircraft fuselages, wings, and Auxiliary Power Units, carnival machinery and train car derailments.

- Medical and high-tech cargo: pharmaceuticals, medical devices, human body parts in cryogenic storage, computer servers, laboratory instruments, and satellite components.

- Unique and high-value shipments: taxidermy trophies from Africa, luxury marble slabs, carved statues, furniture, household goods, clothing, outdoor equipment, brewery and distillery equipment, and packaged liquid products.

- Hurricane, flood and fire: Assorted warehouse inventory for stock throughput policies.

At first glance, losses pertaining to the goods outlined above couldn't be more different. But when you strip them down to the core, they share a common thread for surveyors. Understand the risk, evaluate the loss, and communicate clearly.

And that's where integrity comes in. Whether you're looking at a pallet of frozen French fries or a multimillion-dollar piece of satellite hardware, the role of the surveyor isn't just to record facts. It's to be trusted as a fair witness, someone both sides believe will call it like it is and someone who knows when to call in additional expertise.

Be sure enough of yourself, to stand by your word, and know you are entitled to your professional opinion. But also, be flexible enough to adjust your position in view of new factual evidence. That's a lesson passed down through three generations in my family, and one I'll carry throughout my career.

Question for my peers: What's the most unusual cargo you've ever encountered, and did it teach you anything new about trust in our line of work? Feel free to comment or message me - I'm always interested to hear from others.

This article was first published on LinkedIn and is reprinted here with Austin's approval. You can view his profile at **https://www.linkedin.com/in/austinmccloud/.**

How well do you know the different types of marine spills?

ITOPF has published the 2025/26 edition of its Handbook, providing information on the different types of pollutants encountered at sea and the challenges, impacts, and response options associated with each.

Marine spills can involve a wide variety of substances beyond oil, including vegetable oils, chemicals, bulk cargoes, and plastics, each behaving differently in the marine environment and posing distinct risks. In its latest Handbook, ITOPF outlines the main categories of pollutants, their effects, and the approaches typically taken to manage them.

Vegetable oils

The carriage of vegetable oils, such as palm, canola and soybean oil, has increased in recent years. Although less toxic than hydrocarbon oils, spills of vegetable oils in the marine environment can prove problematic, nonetheless. In general, vegetable oils will behave similarly to hydrocarbon oils in the initial stage of a spill, in that they tend to float and spread on the surface of the water. However, vegetable oils are not very soluble in water; they do not undergo dispersion in the water column nor will they evaporate to any extent. Depending on their particular characteristics, they may form solid lumps or polymerise into floating rubbery strings.

Vegetable oils are comprised primarily of triacylglycerols or fatty acids and in their fresh state may be broken down by marine micro-organisms. This decomposition contributes to the rancid odours typical of these spills.

The primary environmental consequences of spills of vegetable oils are seen in relation to surface dwelling organisms where oil can lead to smothering, suffocation and starvation. Examples include oiling of bird plumage and animal fur, or oxygen depletion and asphyxiation.

The most appropriate response technique for vegetable oil spills is containment and recovery, such as using conventional booms combined with scoops, nets or grabs. Ideally, the floating lumps should be removed before they have chance to fragment, incorporate sediment and sink to the seabed or reach the shoreline. Dispersants formulated for use on hydrocarbon oils have been shown to have little or no effect on vegetable oils.

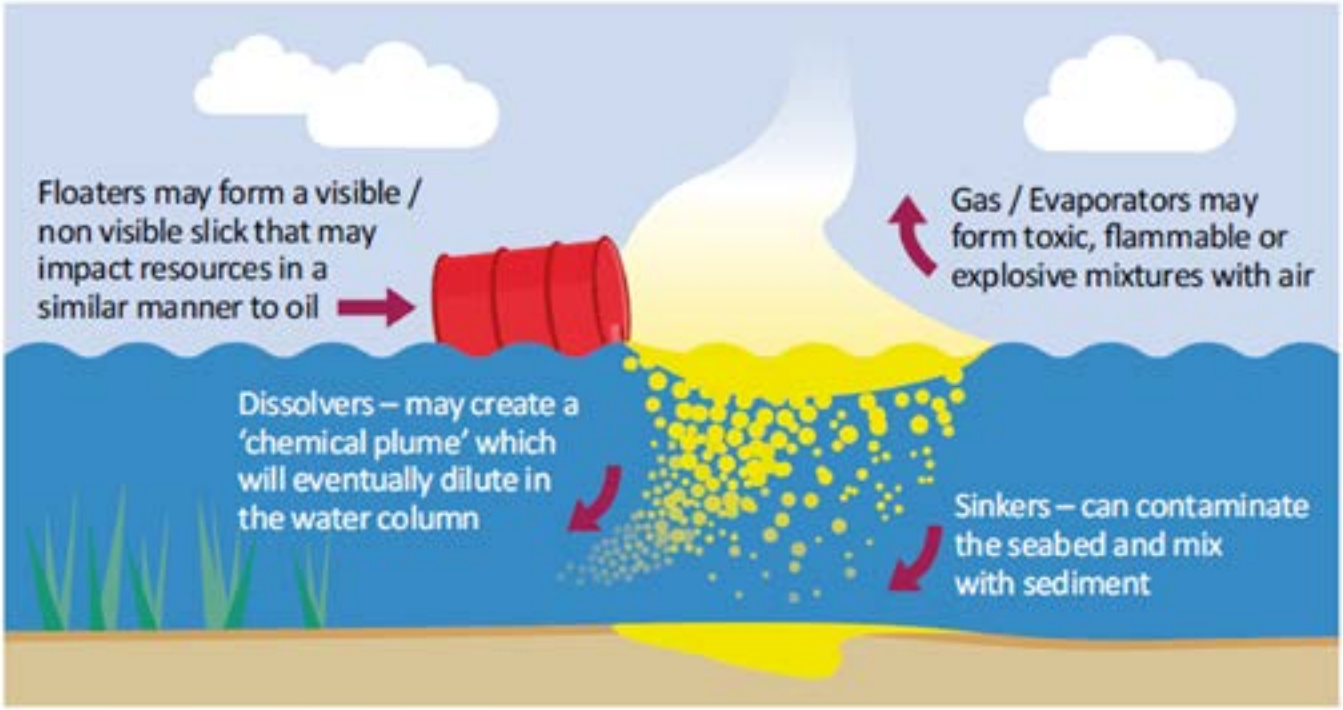
Chemicals

Spills of chemicals are less frequent than spills of oil. However, due to the wide variety of chemicals transported, their differing properties and fate in the marine environment, as well as potential effects on human health and safety, they can often prove to be a more complex challenge.

Chemicals can be categorised in a number of ways, for example whether they are a solid, liquid or gas when transported or spilled; whether they exhibit one or more of five hazards: flammable, explosive, toxic, corrosive or reactive; and whether they sink, dissolve, float or evaporate in water (or a combination of these processes), as illustrated above.

The effects of a spilled chemical will depend on a number of factors such as its toxicity, the quantities involved and the resulting concentrations in the environment. Even sub-lethal concentrations of hazardous chemicals can lead to long term impacts within the marine environment. For example, chemically-induced stress can reduce the overall ability of an organism to reproduce, grow, feed or otherwise function normally.

Some substances can persist for long periods in the marine environment once lost to sea, including heavy metals and some organic compounds. This can result in bio-accumulation, whereby the chemical builds up in tissue at a faster rate than it can be broken down. Sessile marine species that filter seawater for food, such as bivalve molluscs, are particularly vulnerable to this effect. Subsequent bio-magnification may also occur if the chemicals travel up the food chain and ultimately to humans.



BEHAVIOUR OF SPILLED CHEMICALS

Image credit: ITOPF

The potential consequences of spills of hazardous chemicals mean that effective response planning is crucial. A response should be mounted only once a thorough safety assessment of the situation has been completed. A number of different models are available to predict how a substance will behave and its likely trajectory, as well as assessing fire, explosion and toxicity risks.

Response options for many chemicals are limited and monitoring, without necessarily undertaking an active response, must always be considered. If a response is required, responders should wear appropriate personal protective equipment (PPE). For gases and evaporators, techniques available include "knocking down" the vapour cloud or trying to stop or deflect it using water sprays. For dissolvers, acceleration of the natural processes of dispersion and dilution may be possible. Containment and recovery may be an option for some floating chemicals, depending on their flammability, whilst mechanical dredgers and pump/vacuum systems might be used to recover chemicals that have sunk to the seabed.

For all types of chemical spill, maintaining adequate health and safety for vessel crew, responders and the public is key. In a major casualty, the presence of spilled hazardous chemicals can affect the cleanup of spilled oil, requiring detailed risk assessments for all involved.

Coal

Although fairly infrequent, coal spills recently attended by ITOPF have typically occurred in sensitive tropical regions where reefs and fisheries are present. Common problems with large spills of coal include smothering and abrasion. The coal may sink, blocking light to seabed flora and fauna and restricting water circulation. Any fixed or slow moving benthic organisms, including corals, may be crushed or trapped and have limited access to food sources, potentially causing mortality. Negative impacts are exacerbated by high wave energy which can throw coal repeatedly against shoreline substrates causing physical damage through abrasion.

Small particles of coal (or fines) may remain suspended in the water column for some time and in calm waters coal 'clouds' can block light and reduce the photosynthetic ability of organisms. Mobile organisms will move to better light sources, but fixed organisms are vulnerable to starvation, with corals particularly at risk. Fines released close to mariculture facilities or water intakes can clog pumping equipment or affect stock.

The removal of large amounts of stranded coal can present logistical challenges in remote environments; manual recovery is usually required rather than reliance on mechanical resources due to access or availability issues. Furthermore, coal may become buried by subsequent tides and become difficult to remove, particularly in dynamic environments.

Storage of recovered coal should be managed with care. An awareness of the potential for self-combustion of stored coal is important. In areas of high rainfall, leachate should be managed to prevent contamination through runoff.

The above issues, particularly smothering, can apply equally to spills of other types of dry bulk cargoes, for example, iron and nickel ores, fertilisers, sulphur and cement.

Perishable & livestock cargoes

The loss of cargoes, such as foodstuffs and livestock, bring their own set of variables and challenges. Rotting or decomposing organic materials, for example, grain, thawing fish or rotting carcasses, can result in the generation of hydrogen sulphide gas which is particularly hazardous when allowed to accumulate in confined spaces as it is highly toxic and flammable.

Container ship losses

Container ship incidents are an area of increasing concern, not least the consequential loss of plastics into the marine environment. The recovery of containers is challenging in itself, but for breached containers, the sheer amount and variety of materials to recover – from packaged chemicals and foodstuffs to home electronics and textiles – often requires a lengthy response.

An understanding of the integrity of the container and the packaged contents inside may provide an indication of whether the containers are likely to remain intact, float or sink if lost overboard. The response actions, as with oil, will depend on the specific properties and characteristics of the materials in question. Larger floating solids can be corralled from boats using nets and then recovered using grabs. Sunken materials may require dive surveys, dredges or crane grabs.

Incidents can become particularly complex when non-oil cargoes mix with spilled oil. This can make the identification of hazardous materials amongst other cargoes more difficult and present challenges for the segregation of waste for disposal.

According to the World Shipping Council's annual Containers Lost at Sea report, 576 containers were lost at sea in 2024.

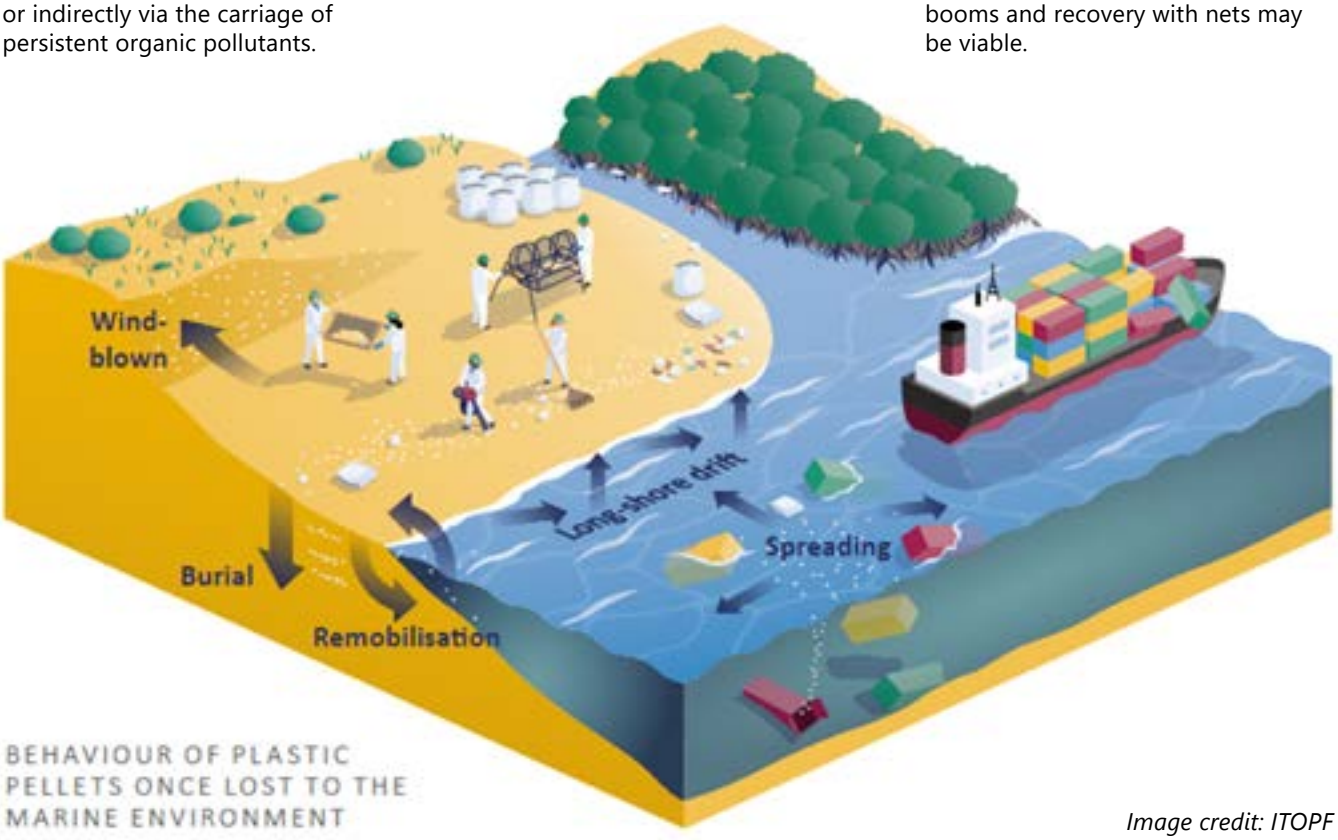
Plastic pellets

A recent challenge for the shipping industry is the growing problem of plastic pellet spills.

Plastic pellets, also known as nurdles, are typically the size of a lentil and the building blocks for the manufacture of plastic goods. They are highly durable and are now found ubiquitously in the marine environment. Although considered inert in their original form, plastic pellets have the potential to be damaging to wildlife if ingested, through direct physical impacts or indirectly via the carriage of persistent organic pollutants.

Losses occur throughout the production and supply chain, with chronic losses typically stemming from land-based sources, while acute losses are the result of sudden, large-scale events, such as the accidental release of containers overboard during shipping incidents.

When released to sea, plastic pellets can spread over vast distances, and are extremely challenging to locate and remove. An early priority is to determine the source(s) of the pellets and, if possible, prevent further releases. The feasibility of mounting an at-sea response largely depends on whether the pellets remain in their packaging or become loose. If they stay intact, then response efforts at sea generally focus on source control, tracking, tracing and recovering the containers and/or packages. Once loose, pellets start to spread widely, in most circumstances the best course of action is to leave them to come ashore. In a port area or other situation where natural geography or artificial infrastructure limits their spread, then containment with booms and recovery with nets may be viable.



BEHAVIOUR OF PLASTIC PELLETS ONCE LOST TO THE MARINE ENVIRONMENT

Image credit: ITOPF

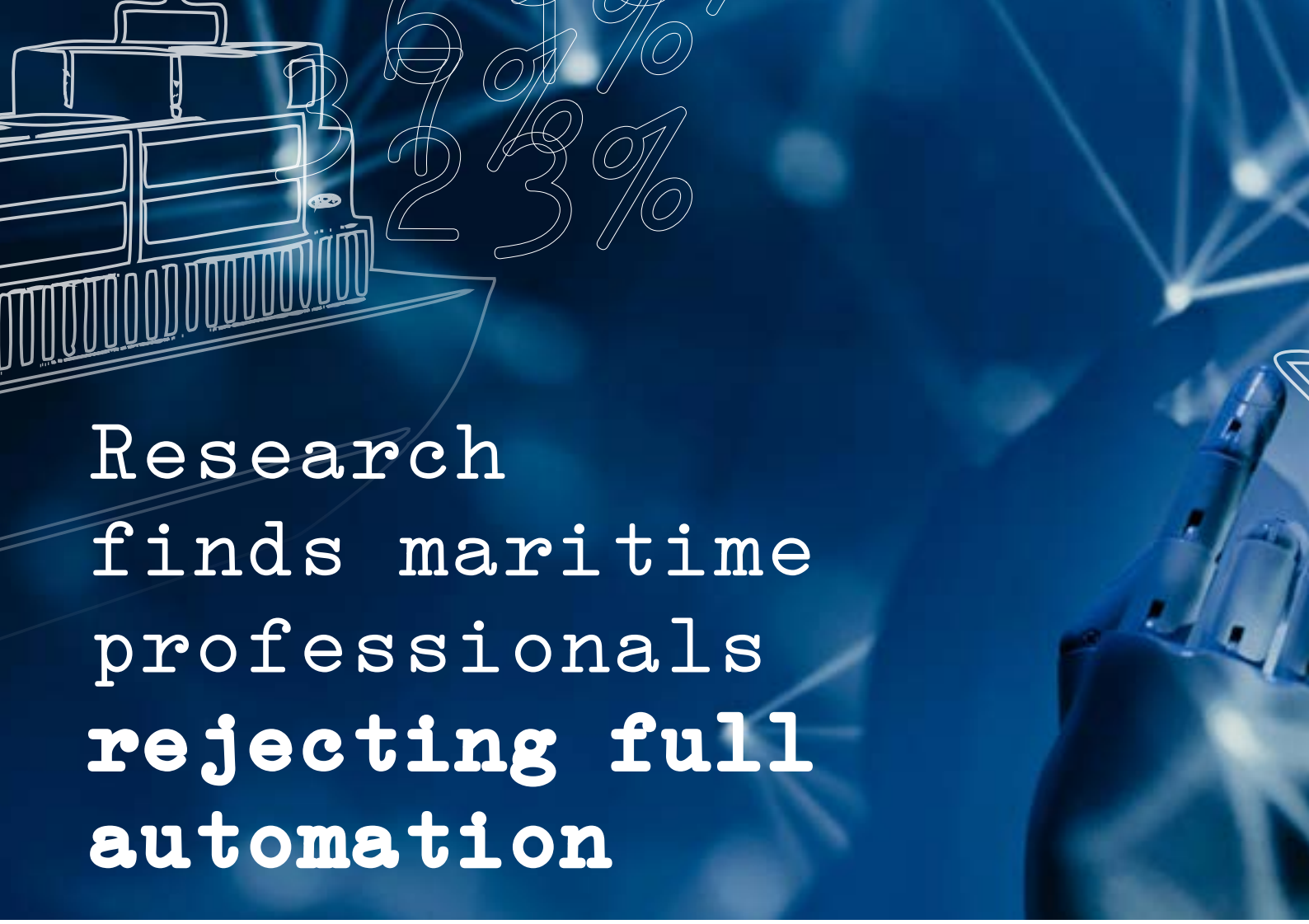
For shoreline clean-up, a rapid response, prioritising any stranded intact bags or the highest accumulations of pellets, is essential. The aim in the early stage of clean-up is to minimise the opportunity for pellets to remobilise or become buried by tidally transported sediments. Clean-up activities should be undertaken alongside continuous surveys and dynamic prioritisation. Many of the plastic pellet response operations to date have relied heavily on low technology, manual recovery techniques, such as using shovels and buckets in conjunction with sieves or hand trommels. This is often the most effective clean-up option, as it is selective and reduces the amount of unpolluted material recovered.

However, it is also labour intensive, involving sometimes hundreds of people over a wide geographic area for a protracted period. Means of mechanical recovery of plastic pellets are currently limited. They often involve adapting off-the-shelf tools and technology designed for oil spill response, such as vacuum systems, flushing or flooding systems, or heavy machinery. Due to lower selectivity, a secondary phase of separation may be necessary to avoid generating excessive volumes of waste.

Endpoints can be difficult to establish in plastic pellet cases, particularly in polluted areas. Comparing the level of residual contamination to background levels of plastic pollution (and the expectation of chronic strandings of pellets) is key to determining the appropriate level of clean-up work to be undertaken. Continuing labour-intensive shoreline cleaning operations to selectively remove small amounts of incident-related plastic pellets is likely to be unreasonable if the background level of plastic debris is high. Suitable endpoints should be agreed by all parties involved.

On a regulatory level, in April 2025, the Council of the EU and the European Parliament reached a provisional agreement on new regulations aimed at reducing plastic pellet losses.

Download the handbook: **ITOPF Handbook 2025**.



Research finds maritime professionals **rejecting full automation**

A recent study by Thetius in partnership with Marcura, has revealed maritime companies are stuck in the early stages of AI adoption, unable to scale beyond small experiments as widespread optimism collides with implementation reality.

The study "Beyond the Hype: What the maritime industry really thinks about AI" combined over 130 survey responses and in-depth interviews with maritime professionals, revealing a sector that is both eager and cautious: 82% are optimistic about AI and 81% are running pilot projects. However, 37% have personally witnessed AI failures and only 11% have formal policies to guide scaling.

Perceived risks and opportunities

- **97%** believe that AI is useful or extremely useful for reducing manual workflow inefficiencies
- **85%** say that AI is useful or extremely useful for identifying risky voyage decisions and red flags in voyage profitability
- **69%** are concerned about poor business outcomes if AI solutions miss critical red flags in contracts or voyage planning
- **66%** worry that overreliance on the technology could lead to a reduction in human skills and oversight
- **61%** feel that cybersecurity and data breach vulnerabilities are the biggest risks for them in implementing AI in maritime operations
- **37%** have witnessed AI projects failing or causing harm
- **23%** feel that vendors are generally untrustworthy, offering too much hype and insufficient results.

According to the study despite their general enthusiasm for AI, maritime professionals overwhelmingly reject full automation. As explained, 70% believe AI should recommend actions but humans should always make the final decision, while 66% are concerned about overreliance on the technology eroding human skills and judgement.

Additionally, the study identified inadequate training as the biggest barrier to scaling, cited by 38% of respondents. The governance gap is equally stark: while 81% run pilots, only 17% have transparent processes for how AI makes decisions within their organisations. Nearly a quarter express concerns about vendor claims outpacing real-world results.

Concerns such as data privacy and cybersecurity are also significant, with 61% citing them as major risks. Strong data governance and ownership frameworks are needed before organisations feel ready to scale. High-quality data is also critical to success.

The rapid shift in AI adoption

Companies are using AI in areas such as navigation automation and cargo operations. But according to Theofano Somaripa, CIO at Newport SA, many smaller and medium-sized ones are not yet ready to fully adopt or scale AI. According to the research, financial constraints, lack of digital transformation strategies, staff readiness, and concerns over data privacy and transparency are blockers to scaling AI.

One of the reasons for maritime's rapid adoption of AI when historically it has been fairly slow to embrace new technologies, is the increasing pressure for companies to show they are committed to advancing technologies and keeping pace with industry leaders.

Another reason for the accelerated maturity curve is due to vendor relationships. Companies that have used solutions from one vendor may be more inclined to adopt AI enhancements built on top of those foundations. This is because they have not only built trust with that vendor but also because their data is already digitised and adding AI is the next natural step.

Furthermore, vertical AI is building trust and maturity faster. Due to it being built for the industry's specific needs, it delivers faster time-to-value, enabling companies to progress from pilots to deployment more quickly and with greater confidence.

"The best AI functions like a co-pilot, not a replacement, providing insights but always leaving the final decision up to the professional who understands the full context. As seen in some legal cases, relying on AI without human oversight can cause errors and even cross into professional misconduct," said Janani Yagnamurthy, VP Analytics, Marcura.

Key recommendations:

1. Invest in tools specifically for maritime
2. Foster agency and discernment
3. Keep the human in the loop to harness trust
4. Engage with emotions, not just system
5. Implement governance frameworks
6. Demand transparency and real-world impact from vendors
7. Encourage experimentation

Global Shipping Business Network report

argues that dangerous goods reshape the fires at sea landscape

The Global Shipping Business Network report focuses on the risk mitigation of the transportation of lithium-powered products in the maritime industry, which finds itself under increasing pressure to safely transport larger volumes of dangerous goods.

According to the Global Shipping Business Network report "Fires at Sea, A New Landscape – Risk Mitigation Strategies for Safe Transport" dangerous goods (DG) given their potential consequences, have received significant attention in conversations surrounding cargo handling.

For some special categories of hazardous non-dangerous goods, such as lithium batteries, existing guidelines cannot fully mitigate the risks associated with improper handling.

In the case of lithium batteries, mechanical damage, thermal stress, or overcharging can trigger the release of toxic, flammable and explosive gases, among other issues. Furthermore, fires caused by these batteries are uniquely dangerous due to their rapid and intense nature.

Additionally, the toxic gases released pose serious health risks to the crew.

Of particular concern to insurers and the shipping industry at large is the risk of thermal runaway - a rapid, self-sustaining fire that can lead to explosions.

TEMPERATURE RISKS AND THERMAL RUNWAY

Even non-DG cargo that is sensitive to fluctuations in temperature may present critical risks if not handled properly. For example, low risk cargo like cocoa butter can lead to fires if incorrectly stored in temperatures higher than 35°C. In the case of lithium batteries, temperatures between 35°C and 60°C present risk for thermal runway and if temperatures exceed 60°C, there is a high chance of explosion.

As an example, the March 2022 Felicity Ace incident, in which a car carrier sank with 4,000 vehicles on board, not only was the lost cargo cost estimated at US$155 million for car manufacturers, but it also resulted in total vessel loss.

According to reports by the World Economic Forum (WEF), nearly three-quarters of all lithium that is mined is now being used for batteries. Rising demands for consumer electronics, electric vehicles (EVs) and renewable energy storage mean that the lithium battery market is estimated to grow by over 30 percent annually until 2030, highlighting the urgent need to enact policies that can minimise temperature risk.

Despite industry-wide acknowledgement that temperature related protocols are necessary there is yet to be a universal protocol. While some organisations and companies have attempted to monitor or govern the handling of temperature-sensitive cargo, the difference in protocols can lead to significant hazards in fluctuating temperature environments.

New battery regulations in Europe impose strict recovery requirements on manufacturers, mandating minimum proportions of recycled metals including lithium, in new batteries by 2031. These proportions will increase further by 2036. The increased demand for used batteries transport presents unique challenges. Used or waste batteries have distinct risk factors and require specialised handling by carriers compared to new batteries, adding another layer of difficulty.

MITIGATING CONTAINER FIRE RISKS: THE CRITICAL ROLE OF TEMPERATURE MONITORING

Temperature management for cargo, especially non-dangerous but temperature-sensitive goods, is critical to ensuring safety during transport. According to the IMDG Code, cargo must be stowed at least 2.4 meters away from heated ship structures, such as steam pipes and heated fuel tanks, where surface temperatures may exceed 55°C.

Certain cargo types may also require "under deck" stowage to avoid exposure to direct sunlight, with 35°C identified as a key threshold for critical cargo. To mitigate risks, ports and operators are adopting proactive measures.

The colour coating and material of a container has a significant impact on the inside temperature of containers while exposed to direct sunlight. At noon under direct sunlight, unplugged reefer containers with white coating enjoy an internal temperature 20°C lower than general containers with maroon coating under similar conditions.

Where a container is stowed is another important factor. A general container placed below other containers—compared to a general container directly exposed to sunlight—experiences a 14°C lower temperature after 9 hours of exposure. One September voyage from China to the US East Coast via the Panama Canal had ambient temperatures above 35°C in the cargo hold for over 12 days (between Mexico and New York). Hence, location and seasonality are also important parameters for risk assessment.

In addition, advanced monitoring technologies such as thermal imaging cameras (TICs), temperature data loggers, portable weather stations, and infrared temperature-scanning systems are increasingly used to monitor and manage container temperatures in real time. These systems can automatically initiate spray cooling if container temperatures surpass safe limits.

However, while these tools enhance operational safety, they must be supported by accurate and standardised information exchange between cargo owners, booking carriers, and vessel operators. Effective communication should begin at the shipping instruction phase and continue through execution, using structured data protocols.

"Today, carriers face growing challenges in safely transporting dangerous goods, driven by rising shipments of batteries for electric vehicles, new energy solutions, and consumer electronics, as well as increased demand for used and damaged battery shipments. This calls for new methods in safer handling and smarter stowage planning," said Ann-Christin, Chair, SMDG.

The burning question: understanding shipboard firefighting foam regulations

When it comes to firefighting foams for shipboard use, many marine surveyors feel uncertain about new and upcoming regulation and how it affects their clients. In addition to the new International Maritime Organisation's regulations on PFOS in shipboard firefighting foams, there are also new EU regulations on PFAS, and the UK's Health and Safety Executive is currently in a consultation period concerning its draft legislation on PFAS. Many countries have also issued their own PFAs regulations or plan to do so, so the regulatory landscape is complex, contradictory and fragmented.

by **Shyama Shiham**, **Steven Duncan** *and* **Alison Daniels** *of Oil Technics (Fire Fighting Products) Ltd.*

IMO PFOS Regulations

January 1st, 2026, sees the introduction of the International Maritime Organisation's global ban on shipboard firefighting foams which contain PFOS. In practice, this should be relatively straightforward to enforce, provided appropriate testing is undertaken where necessary.

PFOS is a degradation or end product of various C8-based fluorosurfactants and precursors which are used to manufacture firefighting foams based on an eight-atom long carbon chain structure. The manufacture of these AFFF-C8 foams has been prohibited under the Stockholm Convention since 2015. This is because PFOS is classified as a Persistent Organic Pollutant. If a vessel was built after 2015, in a country which signed up to the Convention, it should, therefore, not have an AFFF-C8 foam on board. That said, some counties which signed the Convention have not subsequently ratified it, so there is a chance that a vessel may still be carrying a C8 foam. Countries in this position include the USA, Israel, Brunei and Malaysia. The UK does not have a separate listing as it was an EU signatory to the Convention.

In the case of older, pre-2015, vessels, there are two possibilities for Marine Surveyors to consider. The first is that the vessel may be equipped with a C8 AFFF or AR-AFFF foam, which contains PFOS. Firefighting foams are generally expected to have a working lifespan of 10 years, but they can be used for longer provided they are regularly tested, and the foam remains viable, so some of these C8 foams may still be in use.

The second situation is slightly more complex in that the vessel may be using a newer C6 foam. These foams are based on a six-atom carbon chain and do not contain intentionally added PFOS. However, it is possible that when the vessel's foam stocks were changed from a C8 foam to a C6 foam, that the tanks and pipework were not cleaned thoroughly, meaning that residual traces of PFOS are still present. The residual levels may mean that even though the vessel carries a compliant AFFF-C6 foam, it still has unacceptable levels of PFOS present.

The IMO regulations state that for new ships, defined as where the keel is laid on or after 1 Jan 2026, compliance with the requirement to use a firefighting foam which does not contain PFOS is immediate upon delivery. This could be a C6 foam or a fluorine-free foam.

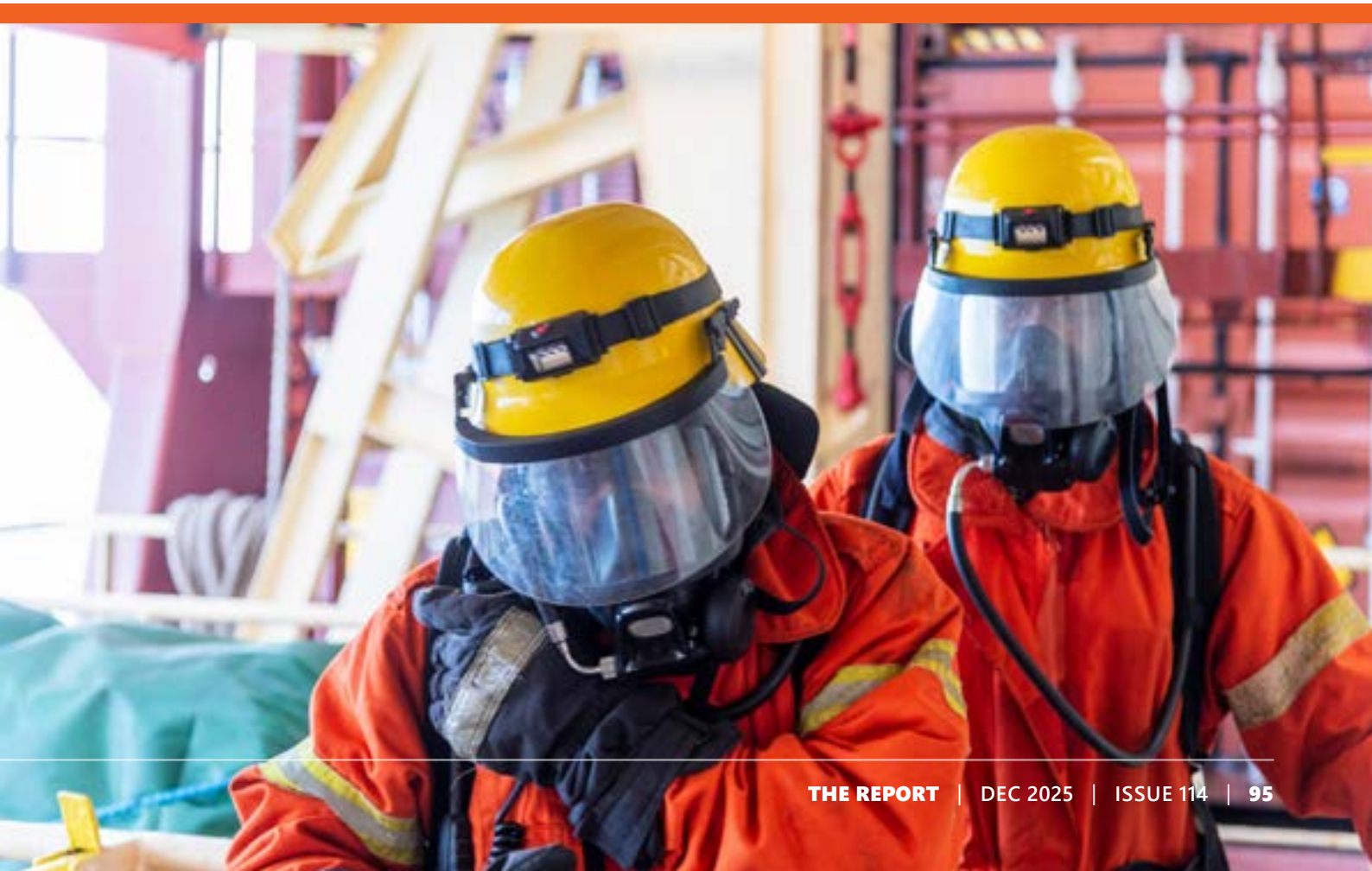
For existing ships, where the keel was laid before 1 Jan 2026, compliance must be by the first survey on or after 1 Jan 2026. Testing for PFOS, either in the form of a C8 foam or as residues, should form part of the survey procedure.

The advice to Marine Surveyors who are faced with the possible presence of PFOS containing C8 foams or residues is to contact a certified foam testing laboratory, who can arrange testing and advise on further action. Test samples can be taken at sea and couriered from the port to the testing house. This allows adequate time for testing and, in the event that PFOS is detected, removal can be planned to minimise operational downtime.

PFAS Regulations

As the new IMO PFOS regulation applies globally, the situation is relatively straightforward for marine surveyors, vessel owners and operators. The situation with AFFF-C6 firefighting foams is rather more fragmented. New legislation is in place or planned in a host of different countries, states and jurisdictions. This, as we shall see, can represent a particular challenge for marine vessels which travel internationally, since they may be required to comply with several different sets of regulations that conflict with each other.

Let's start with the new EU- PFAS in firefighting foam regulation, which were published in October 2025. This lays out a series of transition periods for the phasing out of PFAS containing firefighting foams across different industries and sectors. The length of the transition period directly correlates with the degree of difficulty in substituting a fluorine-free foam that offers equivalent extinguishment characteristics to a foam which contains PFAS. Broadly speaking, the greater the hazard presented by a sector, the longer the transition period. The sectors with the longest transition periods, set at 10 years, are SEVESO III/ COMAH sites, offshore oil installations and marine vessels.



The HSE's draft regulations

In August 2025, the UK's health and safety authority published its draft regulation on the use of PFAS in firefighting foam. The document, entitled, 'Annex 15 Restriction Report, Proposal for a restriction Per and polyfluoroalkyl substances (PFAS) in firefighting foams', runs to over 400 pages. The HSE is currently in a consultation period until February 18th, 2026. This allows interested parties scope to respond to the proposed approach. Following the consultation period, they intend to publish their final regulation within 12 months, so UK legislation could be in place by early 2027.

While the HSE has taken a broadly similar approach to the EU, there is one significant different that affect the marine sector. Rather than the 10-year transition period for civil marine vessels laid down by the EU, the HSE proposes a 5-year transition period for civil shipping and a similar period for naval vessels. This may well give rise to operational difficulties, particularly where vessels travel internationally.

Globally, many countries are introducing their own regulations, much of which follows a similar approach to the EU legislation. Some countries have decided to implement much shorter transition periods, so marine surveyors will need to familiarise themselves with local regulations.

Industry sources believe that the IMO will move to bring in global legislation on the use of PFAS in shipboard firefighting foam systems, which would significantly simplify matters. It is also expected that this may take some time.

Interestingly, the EU regulation originally proposed a five year transition period for marine vessels which have existing foam systems on board but considered this to be too short given the required modifications to the foam system which can only be carried out during drydock. Therefore, the European Commission favoured a ten year transition period. There is a compelling argument that the UK's legislation should match this, given the relative scarcity of dry dock facilities.

Potential issues with fluorine-free foams for marine vessels

There are a number of questions that marine surveyors are likely to be asked by their clients about their shipboard firefighting foams. The most pressing one is likely to centre around whether a vessel should adopt a fluorine-free foam at the first opportunity or hold off until nearer the end of the allowed transition period.

While there are fluorine-free foams available on the market, there are a number of safety, operational and commercial issues with their performance that have given rise to the EU implementing a 10-year transition period.

Firstly, a fluorine-free foam cannot simply be dropped in to replace an AFFF foam. Fluorine-free foams are sometimes more viscous than AFFF foams and can only be delivered in a gentle, rather than a forceful, manner. Additionally, it can take a greater volume of fluorine-free foam to extinguish a fire because it uses a different extinguishment mechanism. In essence, using a fluorine-free foam may mean that a fire takes longer to extinguish because of the gentle application method. Taken together, these factors may mean that there's a requirement for up to twice as much foam to be stored on board to meet the SOLAS requirements of vessels carrying 20 minutes' worth of foam where gas suppression systems are also in use and 30 minutes where no gas suppression system is present. In addition to larger or more numerous foam tanks, the existing delivery system such as pipework, nozzles and the proportioning system may need to be reengineered. This can mean that a move to fluorine-free foam can be expensive and involve a period of retrofitting and crew training because of the difference in application methods.

The majority of civil and naval vessels proportion their foam concentrate with sea water. This is a further reason behind the long transition period. Currently fluorine-free foams to not offer the same level of performance when using seawater. Furthermore, they become more viscous at lower temperatures and may tend to be more difficult to direct in windy conditions. Therefore, the local climactic conditions would need to be fully considered before transitioning.

The HSE's draft proposal also covers military vessels, proposing a five year transition period, again shortening the EU's published 10-year transition period. Again, this proposal is open for feedback until February 18th, 2026. In July 2024, the U.S. Government Accountability Office (GAO), published a report stating that while the Department of Defense has worked on a fluorine-free military specification foam, it had concluded that fluorine-free foams did not meet performance needs and that ocean-going vessels were exempt and would continue to use AFFF-C6 foams.

Vessels which use several ports, particularly when in the cases of cargo vessels, tankers, ferries and cruise ships might be best advised to make the most of the transition period. Not only may they find that while they are operating in compliance with PFAS regulations in one port, but they

may be non-compliant in the next. As well as presenting operational issues, this may also impact on the validity of insurance, so transitioning towards a fluorine-free foam is a complex matter that requires considerable research before a decision is made.

A further complication stems from the incompatibility of fluorine-free foams. Unlike AFFF-C6 foams which are mostly compatible, many fluorine-free foams cannot be mixed. Should a foam be discharged, it may need to be topped up with the same foam from the same manufacturer. It will be necessary to ensure that the chosen fluorine-free foam is available in each port the vessel berths in.

Just as when changing from a C8 foam to a C6 foam, tanks, pipework and delivery systems should undergo a specialist cleaning regime that includes PFAS/TOP Assay testing before the tanks are restocked with a fluorine-free foam. This ensures that residual PFAS levels are below the legal limits.

All this is not to say that fluorine-free foams will not be suitable for some vessels. A vessel operating in a warm freshwater environment may well be able to transition to fluorine-free foam just now. Similarly, a vessel carrying portable foam fire extinguishers could replace their current extinguishers with fluorine-free versions as these are premixed with potable water and most likely to be used on small fires.

Safe disposal of PFOS and PFAS firefighting foams

The final reason that may make retaining a PFAS foam more attractive is the requirement to dispose of any discarded foam according to local regulations. In the UK, this involves shipping foam containers via a licensed waste contractor to a high temperature incinerator site. Currently there are only two such sites in the UK which accept foam waste and the process is expensive.

Recap

In conclusion, it's clear that advising clients on transitioning to fluorine-free foam is not a simple matter. There are a great many factors, from primary concerns like safety to operational and commercial issues and potential conflicts between various regulatory jurisdictions that require careful consideration. New fluorine-free foams are in development, and the transition periods should allow the development of fluorine-free foams which match the performance of AFFF foams. The smart approach may be to wait and see.

Where to find out more

EU published legislation:
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32025R1988

HSE draft legislation for consultation:
https://consultations.hse.gov.uk/crd-reach/pfas-in-firefighting-foam-fff-restriction-proposal/#:~:text=Closes%2018%20Feb%202026,Opened%2018%20Aug%202025

Individual country legislation:
Consult the governmental agency which deals with maritime safety and legislation. Note that some counties legislate on a state by state or provincial level.

Stockholm Convention Ratification List:
https://www.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx

A guide to IMO regulations for firefighting foams:
https://www.firefightingfoam.com/assets/Uploads/SALES-SHEETS/Maritime-Firefighting-Foams-Guide-to-IMO-and-EU-legislation.pdf

A straightforward guide to the new EU and UK firefighting foam regulations:
https://www.firefightingfoam.com/assets/Uploads/SALES-SHEETS/A-straightforward-guide-to-new-EU-IMO-regulations-Rev1025-EMAIL.pdf

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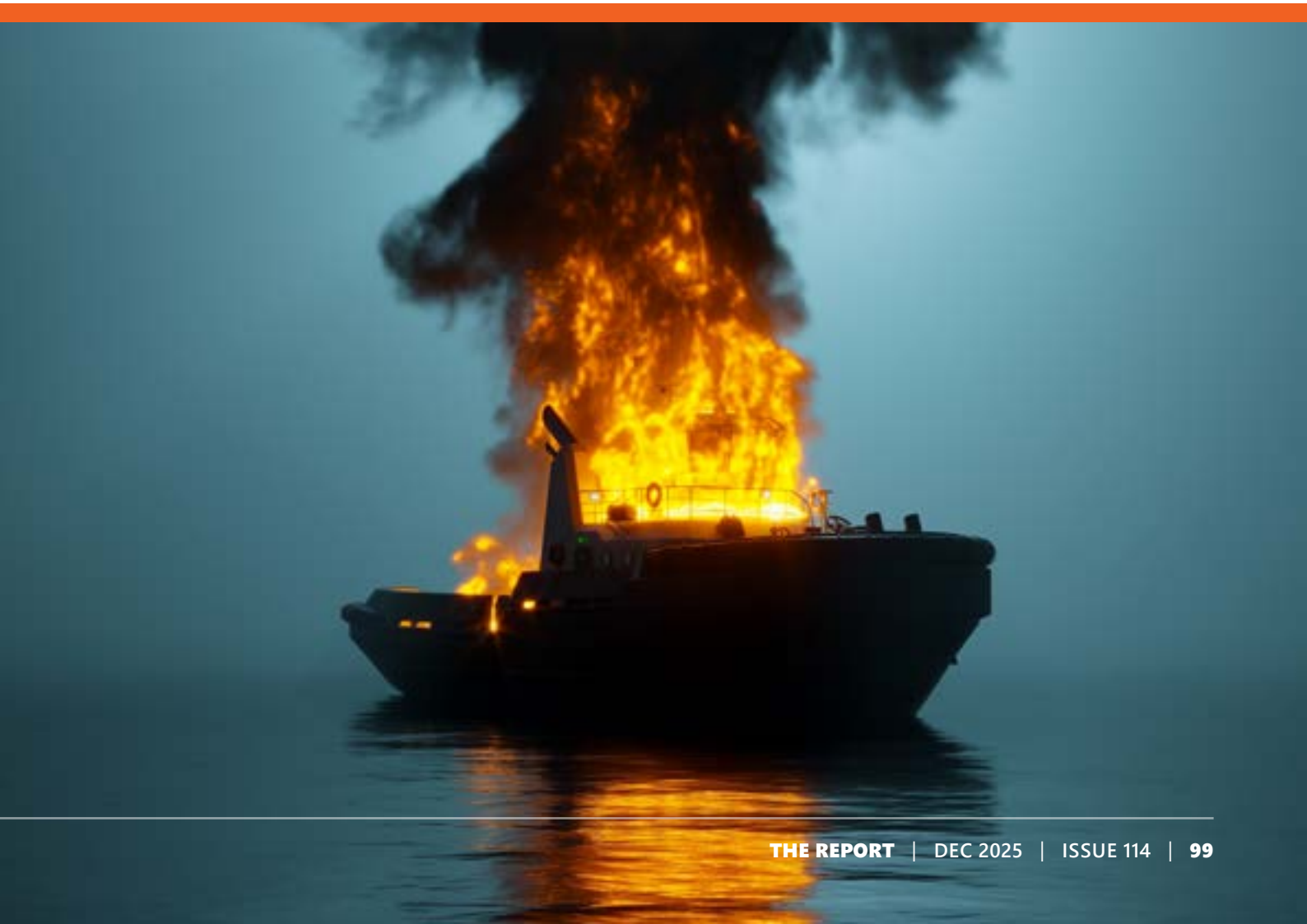


Future of superyacht refits: Sustainability and smart tech

By Joe Quintana

With the yacht refit market evolving faster than ever, shipyards are under pressure to keep up with rising client expectations. Sustainability, advanced technology, and operational transparency have shifted from being optional extras to defining factors in determining where and how yacht owners choose to refit.

For many in the fast-paced world of yachting, gathering the insights needed to make informed refit decisions can be time-consuming and complex. That's why, with the expertise of KRM Yacht Refit & Rebuild, Turkey's first official superyacht rebuild and refit facility, Yachting Pages explores how priorities have changed, what truly makes a shipyard stand out, and how sustainability and smart technology can be marketed as a competitive edge in today's market.

EVOLVING REFIT PRIORITIES

Refit priorities in the yachting world have undergone a major shift. KRM has observed that yacht owners are now heavily focused on efficiency, usability, and eco-conscious upgrades. Rather than extravagant finishes, the new preference is for hybrid propulsion systems, solar energy solutions, and technologies that reduce exhaust emissions and carbon footprints.

"Yacht owners follow technological developments closely," Kerem Baser, founder of KRM, noted. "They prefer new technologies in areas such as exhaust fumes, solar panels, and hybrid propulsion systems."

The refit process is no longer about aesthetics alone. It's about preparing vessels for a more sustainable future and integrating smart systems that enhance on-board life while meeting growing ecological expectations.

YACHT OWNER CONCERNS

According to Baser, efficiency and transparency top the list of concerns during a refit. Yacht owners, whether upgrading an existing vessel or outfitting a newly acquired one, are moving away from flashy or excessive upgrades. Instead, they want simplified, practical enhancements that improve space and usability.

"Transparency is a key factor when refitting a yacht, as the refit process is open to all kinds of manipulation", he expressed. "Professional and reliable companies should be the first choice of owners before the first budget, as some favourable prices and offers may seem reasonable at the beginning, but unfortunately may lead to higher total renovation costs later on."

While sustainable practices and innovation are also valued, clear communication, realistic budgets, and reputable workmanship are what owners trust most when making decisions.

MARKETING SHIPYARD TECH ADVANTAGES

"If shipyards can't explain their technological advantages well, they won't get what they want from marketing," Baser observed. "Completing a thorough refit and rebuild project is very important, and you need to use technology to tell the whole industry that you're doing it in the best way possible." Shipyards that excel at integrating advanced systems, smart controls, propulsion innovations, or eco-tech, for example, must effectively communicate their strengths to yacht owners and managers.

Technology must be part of your marketing. It tells the entire industry that you are capable of delivering a modern, optimised refit. Transparency in your processes, capabilities, and results isn't just a bonus; it's now a minimum expectation.

CHOOSING THE RIGHT SHIPYARD

For yachts over 40 metres (131 feet), decisions often lie with management companies, who rely on accurate feedback from across the industry. Baser emphasises that the shipyard's reputation, not just its branding, plays a decisive role.

"The shipyards should use all marketing tools to present how they do their job; after that, the client should do very good research about these shipyards and check their reality. Unfortunately, most of the companies are far from what they show. In this case, it is very important to check their reputation from local contacts, not only checking the information provided but also contacting previous references who have used their facilities in the last years."

Clients are encouraged to contact past captains, verify recent projects, and consult local references, rather than relying on carefully curated marketing.

MARKETING SUSTAINABILITY

For KRM, sustainability starts with a broader understanding of the refit process itself: refitting is recycling. "If you are recycling a whole boat, you are recycling something that has completely lost its capability, and after refitting it, you are making something that works completely flawless," Baser noted.

To build trust with eco-conscious clients, shipyards should clearly communicate the recycling value of refits and their commitment to reusing and maximising existing structures. It's not enough to say you're green; clients want to see the process and the real-world benefit. The more transparent and practical the message, the more it resonates with sustainability-focused owners.

YACHT OWNER'S RISING EXPECTATIONS

Expectations have expanded dramatically. Owners are no longer content with a limited list of upgrade options; they now expect tailored solutions that match their values and financial strategies. According to Baser, "there are those who own boats for investment purposes as well as for private use", and as technology develops, "refit options also develop", offering a wider range of choices.

These advancements allow owners to experience nostalgia while embracing modern possibilities, creating "much more economical and alternative options" that support sustainability. Thanks to these technological improvements, refits today blend tradition with innovation, helping owners preserve the yacht's

character while modernising its systems. This versatility encourages long-term thinking about usage, resale value, and operational efficiency.

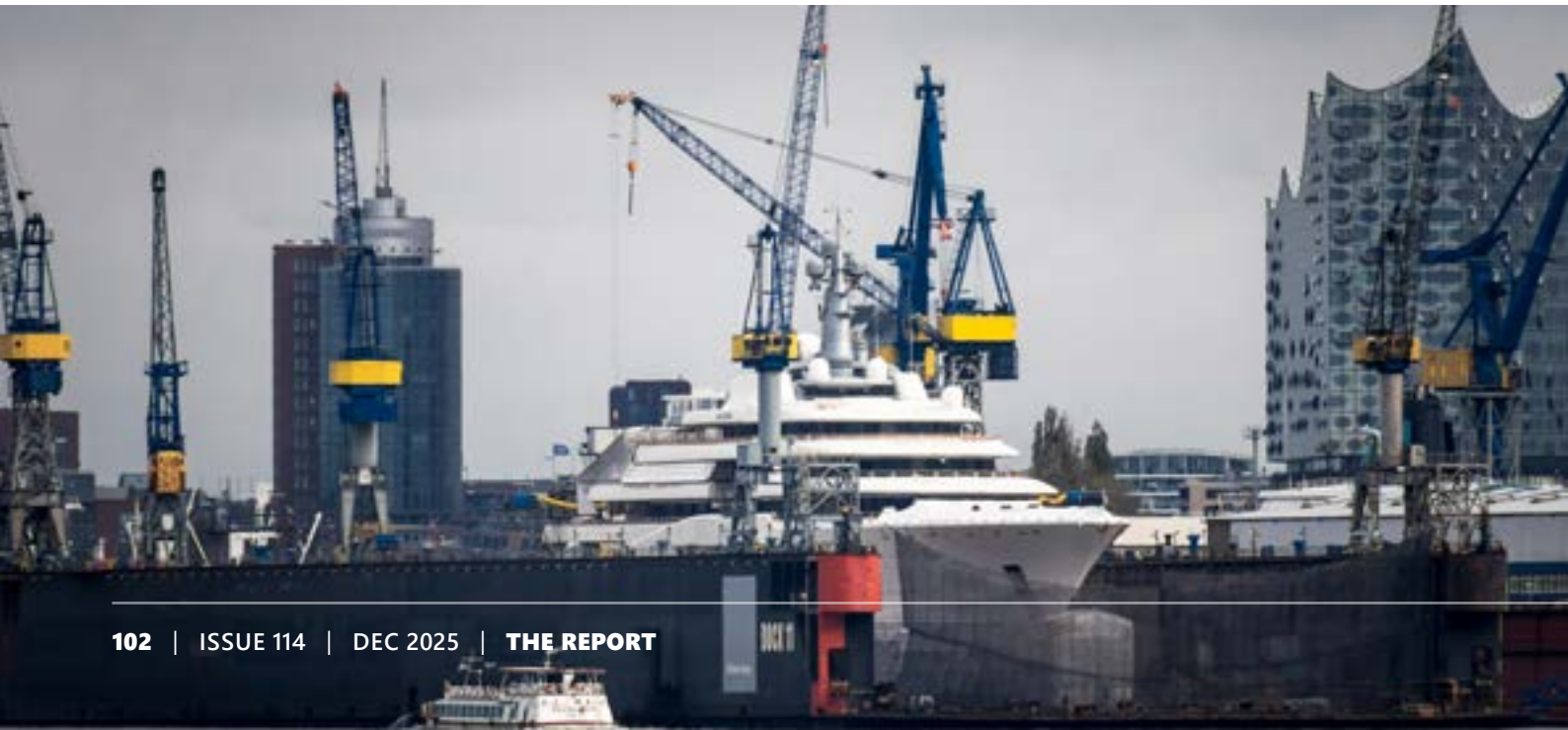
PROMOTING ECO-CONSCIOUS REFIT PRACTICES

The role of the shipyard is not just to deliver what's asked but to educate, inspire, and advocate for more eco-conscious refit practices. "To be honest, I don't think shipyards are doing enough… the industry has not done enough on this issue," Baser said. They need to pay much more attention to people's concerns, do their research, and find a way to make the existing yacht industry much more sustainable.

They "should do it as fast as possible" and "present it in the best way they can because customers are ready to do it."

As Baser makes clear, yacht refits are no longer just about restoration; they're about transformation. The modern yacht owner expects sustainability, transparency, and advanced technology to be central to every project. Shipyards that embrace these values and communicate them with clarity will stand out in a competitive market.

The future of yacht refit belongs to those who view each project as an opportunity to responsibly enhance, evolve, and extend the vessel's life. By investing in smart tech, reducing environmental impact, and building client trust through open communication, shipyards can not only meet the future, they can help define it.



INNOVATING FOR IMPACT: SUNREEF'S BLUEPRINT FOR SUSTAINABLE YACHTING

Sunreef Yachts is redefining sustainable luxury at sea with solar-powered catamarans, recycled materials and plant-based composites. From eco-propulsion to circular design, the shipyard is steering yachting into a cleaner, quieter future.

Sustainability or eco-friendliness are not the first things most people associate with luxury yachting. Yet there is a clear trend towards "greener" yachts, says Artur Połoczański, Public Relations Director at Sunreef Yachts. The approach of his company to this idea leads through comprehensive research and development, he stresses.

Catamarans are energy-efficient

"If you go to any superyacht show worldwide, you'll notice a dominance of big-displacement, fuel-guzzling monohull motor yacht designs. We're in the midst of changing that perception," says Połoczański. "We started out over 20 years ago by opening a new market niche: the luxury catamaran." Catamarans have many advantages, from high stability to low friction in water, resulting in a substantial reduction of the energy required to move the craft. Multihull yachts are rapidly gaining in popularity because of these properties.

As catamarans, Sunreef yachts offer generously-spaced deck areas for aquatic activities, sunbathing and relaxing.

Sunreef, based in Gdansk, Poland, is propelling multihulls into the mainstream of yacht building. "Sunreef injected the idea of high quality into the catamaran," says Połoczański. "But we didn't stop there. We've been reinventing that product, changing the idea behind what a luxury yacht is."

Electric and solar yachts gain traction at Sunreef

Sunreef builds both motor and sailing yachts in sizes from 45 ft (13.72 m) up to a 210 ft (64 m) trimaran superyacht. Every model is available in a "classic" or "eco" version, and with conventional combustion-engine, hybrid or pure electric propulsion. It is the "eco" range where Sunreef focuses most of its R&D efforts. "Today, roughly 50 per cent of enquiries are for eco models with features such as electric propulsion, batteries and solar panels," explains Połoczański. The sailing versions have the smallest potential ecological footprint.

"I think this trend will continue to grow, because the younger generation tends to be more environmentally conscious," says Połoczański. "But even with the current generation of yacht owners, we can see that trend. Going eco is convenient to them: they save money on fuel and maintenance because electric motors are easier to maintain; they can navigate in silence and without vibration and fumes, so an eco-yacht benefits both the environment and the owner. It isn't difficult to convince customers of these benefits."

DNV helps maintain the focus on quality and sustainable innovation

DNV has assisted Sunreef in implementing its innovative technical solutions, helping the company ensure its products comply with the environmental regulations applicable to large yachts. "From the early design stage, Sunreef has been able to rely on DNV's assessments as to whether the proposed innovative solutions will meet safety requirements," Połoczański highlights.

Class-related DNV services include the voluntary class notations Clean (Tier III) and Battery (Power) for Sunreef's yacht designs. "Sunreef's choice of these class notations represents an investment not only in environment protection and sustainability but also in performance, marketability and long-term regulatory compliance. Whilst this requires careful planning and technical evaluation, the final product is a yacht that reflects the contemporary values of responsibility, innovation and environmental stewardship," DNV Project Manager Piotr Jetke points out. Artur Połoczański adds: "DNV plays an important role here, providing comprehensive inspection and approval of the work and covering everything from composite work to electrical systems."

As an acknowledged leader in rig certification, DNV has also been entrusted with assuring the rigs for three Sunreef catamaran units, an ongoing process that is expected to be finalized by the end of 2025 alongside hull classification.

Sunreef integrates solar, wind and fuel cells for clean cruising

Technology is the driver of sustainable yacht building at Sunreef. "The most recognizable feature of our boats is our solar panels, which we call 'solar skin', an industry first," describes Połoczański. "They're integrated into the composite hull material, giving us more surface area." The battery banks are engineered specifically for Sunreef, and customized to fit the specific model.

Hull-integrated solar panels, called 'solar skin', maximize the surface area available for sustainable power generation.

Air conditioning is the biggest energy consumer on board a luxury yacht, which is why Sunreef has had its supplier develop an extremely energy-efficient technology made with lightweight titanium parts and using gaseous rather than liquid coolant.

Optional wind turbines provide an additional energy source. Furthermore, the sailing superyachts, especially the popular new 43M model, can be equipped with hydrogenerators that generate electricity by letting the water flow turn the propellers backwards whilst sailing. The company

is also developing methanol-powered fuel-cell systems for electricity generation, as well as dual-fuel generators that will benefit from the evolving alternative fuels infrastructure.

Recycled PET foam reduces weight and emissions
A lighter craft requires less propulsion energy, whether diesel or solar. Therefore, the engineers at Sunreef develop alternative structural materials. "We use a lot of lightweight PET foam in our hulls that's made from recycled PET plastic bottles," says Połoczański. "For example, the Sunreef 80 incorporates material from around 600,000 bottles." The same material can be used for some of the interior furnishings, as well, he adds: "We're now replacing plywood. In a Sunreef 80, for example, this is equivalent to an additional 180,000 recycled plastic bottles."

Renewable raw materials help protect rainforests

Concerns of rainforest destruction have spurred a public discussion about the use of teakwood in the marine world, prompting Sunreef to look for a substitute. "We're now replacing teak with a natural alternative," says Połoczański. "In a few months, we'll launch a first boat with this alternative decking solution, and from that time on all of the Sunreefs will use that instead of teak. I believe that the alternative we found is perfect."

Similarly, a plant-based alternative for glass or carbon fibres in composite elements has been found: Flax. Grown in Normandy, France, this low-cost, easy-to-grow plant requires little water and has a negative CO2 footprint. "Our flax fibre composite is fairly close to the conventional one in terms of physical properties, such as strength," Połoczański points out. "On some Sunreefs you can already find bar modules, navigation stations and tables made with flax fibres; we can make Jacuzzis and ceilings from this material and are about to introduce it to structural elements."

Establishing end-of-life recycling and repurposed décor

Simultaneously, the R&D department is following the advancements in energy-efficient, eco-friendly recycling technologies closely. "More and more resin systems are invented specifically for easy fibre-resin separation after end-of-life. We believe that in the near future there'll be mature systems we can use as a standard solution," Połoczański is confident.

The eco-friendly Sunreef luxury yachts being built in Gdansk are the result of comprehensive research and development work.

Repurposing or selling used material is part of the sustainability strategy at Sunreef. The yard separates all waste for re-use by other industries. "Our waste is properly recycled and reused whenever possible," Połoczański adds.

Interior decoration lends itself to the use of recycled or recyclable materials. Sunreef leaves the decision up to the customer: "Our customers can touch and feel samples at our showroom to see for themselves that there are no compromises in terms of luxury when they use recycled material, whether rugs made from recycled plastics, furnishings from repurposed teak or countertops made out of recycled cardboard and paper," describes Połoczański.

Artificial intelligence can boost energy-efficiency

There are various R&D areas at Sunreef where AI is helping to enhance sustainability. In the latest iteration of the Sunreef Solar Skin system, machine learning algorithms and historical data from the Sunreef Eco catamaran fleet optimize the solar panel placement on the yacht to maximize energy generation in varied sunlight angles.

AI is also key to sailing automation, says Połoczański: "Yacht charterers often avoid sailing because they consider it as a hassle, and are happy motoring instead. We want to make sailing easier by applying smart algorithms and AI to minimize energy consumption."

To minimize the effect of shadows cast by the sails on photovoltaic surfaces, AI can optimize the heading of the craft and the sail position. "We expect AI-based intelligent energy management systems to learn from crew behaviour and optimize the overall energy efficiency of the yacht in the near future," says Połoczański.

The goal: Building boats that last generations
Product longevity is a key aspect of sustainability, Połoczański points out. "We want to build boats that last generations," he says, confident that the Sunreef philosophy will be there for the long term. "This is one of the future trends. Superyachts can be energy-efficient. That's, in a nutshell, the vision for the future of Sunreef."

This article first appeared on the DNV website and is republished here with our thanks.

Lightning protection at sea: What superyacht owners and crew need to know

By Héctor Ayala, Sertec Marine

Lightning is one of nature's most powerful and unpredictable forces - and for those at sea, it can be a serious hazard. With around 44 lightning strikes occurring every second worldwide, the threat is far more common than many realise. But how likely is a lightning strike to affect your vessel? Are sailing yachts more vulnerable? And what protection systems are available to reduce the risk?

In this article, we explore the real-world risks of lightning at sea and how vessel owners and crew can stay safe.

Modern superyacht with metaphorical lightning protection barrier

How likely is a lightning strike?

Globally, there are an estimated 1.4 billion lightning flashes per year, and at any given time, around 2,000 thunderstorms are active on the planet. However, only around 25% of lightning events are cloud-to-ground strikes, which are the type most likely to affect vessels.

The likelihood of being struck depends heavily on location and weather patterns. Lightning is most common:

- Over land in tropical regions, where heat and humidity fuel frequent storms.
- In the summer months, particularly in the afternoon and early evening.
- In known hotspots such as the Catatumbo River in Venezuela, parts of Central Africa, Southeast Asia, and the Caribbean.
- In the United States, Florida consistently reports the highest density of lightning strikes.

For vessels in these regions -especially during the warmer months - the risk of lightning is significantly heightened.

Are all boats vulnerable, or just sailing yachts?

It's a common misconception that only sailing yachts are at risk. While it's true that sailboats - with their tall masts - are more likely to attract lightning, all vessels are vulnerable.

At sea, a boat often becomes the tallest object in the area, making it a natural target for lightning seeking the shortest path to ground (or, in this case, water). Strike points could include:

- A sailboat mast.
- A radar arch or antenna on a powerboat.
- Even a person standing at the helm.

Once lightning strikes, the electrical current looks for the quickest exit path—typically through the boat and into the water. If the vessel lacks a proper protection system, this path may pass through structural components, electronics, or even people, leading to serious consequences.

AI illustration of superyacht protected from lightning strike on stormy night

What kind of damage can lightning cause?

A lightning strike can be catastrophic for any vessel, particularly those not properly protected. Common types of damage include:

- Hull damage: Lightning can blow holes in fibreglass hulls during exit.
- Electrical failure: Navigation systems, radios, engines, and even backup power can be destroyed by electrical surges.
- Fire: Sparks and extreme heat can ignite fuel vapours or flammable materials on board.

Even a nearby strike can be damaging. The electromagnetic field generated by a strike can disrupt electronics and cause equipment failure, even without a direct hit.

What protection systems are available?

The best way to mitigate lightning risk is to install a dedicated lightning protection system. These systems provide a controlled path for lightning to follow—from the highest point of the vessel down to the water—reducing the risk of structural damage, fires, and electrical failure.

A typical protection system includes:

- An air terminal or lightning rod at the mast or tallest structure
- A heavy-duty conductor to carry the current safely downwards
- A grounding plate mounted below the waterline to disperse the energy
- Equipotential bonding to connect major metal components and prevent side flashes (which occur when current jumps between unconnected conductive parts)

For metal-hulled boats, the hull itself can assist in grounding, but proper bonding is still essential.

Among the newer technologies available, CMCE marine lightning protection offers a passive system designed to reduce the likelihood of a direct lightning strike by neutralising the electrical charge buildup around a vessel. This approach is increasingly being adopted by yachts and commercial craft looking to enhance their onboard lightning protection without relying solely on traditional grounding systems.

Regardless of the system used, correct installation and regular inspection are key to ensuring continued effectiveness.

Safety tips to reduce risk during storms

While having a lightning protection system is crucial, behaviour during a storm can also make a big difference. Some key precautions include:

- Check the forecast before leaving port. Marine-specific weather apps and radio alerts can warn of approaching storms.
- Head to shore if a storm is approaching. Don't try to outrun it.
- Lower antennas and metal objects when offshore during a storm.
- Avoid touching metal or using hard-wired electronics during a thunderstorm.
- Stay below deck and keep low in the vessel if you're caught at sea.
- Disconnect electronics where possible to avoid surge damage.
- Never swim or dangle limbs in the water during a storm.
- For critical backup electronics, some boaters store them in a microwave (which can act as a makeshift Faraday cage) to protect against electrical surges.

Minimising risk in an unpredictable environment

Lightning may be a natural phenomenon, but its impact at sea can be severe - especially for vessels without adequate protection. While sailboats are statistically more likely to be struck, no boat is immune. The combination of proper onboard systems, crew awareness, and safe practices can significantly reduce risk and protect both vessel and crew from harm.

Shipping must join other industries to hit net zero goal

Daniel Bischofberger, Chief Executive Officer, Accelleron

Accelleron unveiled its first maritime decarbonization report at London International Shipping Week (LISW25) in September, urging the shipping industry to join the global hydrogen economy by working with other sectors to pool demand for carbon-neutral fuels.

Accelleron's "Deadlock: What's Stopping Shipping's Carbon-Neutral Fuel Transition?" report argues that "viral" efficiency measures such as vessel retrofits and digital solutions across the largest ships in the global fleet should be enough to reach the IMO's carbon reduction targets for 2030.

But for deeper decarbonization leading to net zero, shipping will need to switch to green hydrogen-based fuels, which today are scarce and prohibitively expensive. Their production is virtually non-existent, even though the technology to power ships with carbon neutral fuels exists, and moreover, has been backed by major shipowners who have ordered hundreds of new vessels.

Key points of the report include:

- Technical and operational efficiency measures could cut emissions by over 30% by 2030, exceeding the IMO target.
- By 2050, shipping alone will need 100-150 million tons of green hydrogen each year
- Shipping, aviation, steel, cement, power, and agriculture account for about 70% of global emissions and would need a total of around 500 million tons of green hydrogen and $9 trillion in cumulative investment to produce it.
- Only about 38 million tons of green hydrogen production are currently in the pipeline, supported by less than $320 billion in committed investment.

Deadlock 1: Fuel pathway uncertainty fragments demand and dilutes investment in scalable net zero solutions

By 2030, shipping has committed to just 1.07 million tons of e-fuels, far short of the 13.7 million tons needed to meet the IMO's target of a 5% reduction in greenhouse gas emissions. Currently, shipping accounts for only 0.7 million tons of the 111 million tons of biofuels available globally. Combined biofuel and e-fuel production commitments represent just 19% of the IMO's minimum carbon-neutral fuel target for 2030. While stakeholders broadly agree that green hydrogen is the cornerstone of the maritime sector's long-term energy transition, fragmented fuel strategies and siloed sectors continue to hinder its scalability.

Deadlock 2: Concentrated fuel supply impacts global fleet flexibility

The largest planned hydrogen hub for green ammonia production will span a land area 30 times the size of Singapore, about one-tenth the size of the UK. These massive hubs aim to bring down the projected cost of green ammonia to $650 per ton, compared to $500 per ton for conventional marine fuels, by leveraging economies of scale. However, 70–80% of the global merchant fleet consists of bulk ships, which rely on flexible routing, posing a significant challenge to the adoption of fuel solutions that depend on fixed supply chains.

Deadlock 3: The green finance paradox

Banks and investors are channelling trillions of dollars into ESG funds, yet only a small portion, about $14.5 billion since 2018, is allocated to shipping out of a total $3.5 trillion in global ESG assets under management. This reluctance stems from shipping's fragmented ownership, long vessel lifespans, uncertain regulations, and less reliable ESG disclosures compared to sectors like aviation and power generation. Coupled with fragmented demand across multiple fuel options, these factors make it difficult to secure the massive investments required to scale carbon-neutral fuel development in shipping.

Deadlock 4: Regulatory ambition versus implementation reality

Starting in 2028, the IMO Net Zero Fund is expected to generate $10–12 billion annually, but shipping will require a total investment of $3 trillion by 2050 to fully transition to green hydrogen production and infrastructure. The Net Zero Framework covers 85% of international shipping emissions, highlighting the scale of the challenge ahead.

Deadlock 5: Infrastructure bottlenecks at ports

Even if finance and regulation align, fuels can only flow with the proper infrastructure, making ports the final gatekeepers of maritime's energy transition. Ports serve as the critical junction where shipping demand connects with power grids, pipelines, storage, and logistics networks that also support aviation, steel, chemicals, cement, and agriculture. The challenge extends beyond shipping, as the global port network underpins both trade and energy. The entire cross-sector hydrogen economy depends on this port ecosystem, and unless ports, utilities and industries expand these systems in coordination, bottlenecks will limit the scale-up of carbon-neutral fuels.

Findings and recommendations:

Efficiency must 'go viral'. It is the first fuel in shipping's decarbonization race.

The ships are ready. The fuels are missing. The global fleet is becoming carbon-neutral-fuel-ready, but the supply of e-fuels in 2030 will cover just 4–8% of the IMO's 5% minimum target, making accelerated production essential

Green hydrogen: Indispensable feedstock and strategic energy security resource. Green hydrogen is the indispensable feedstock for future carbon-neutral fuels, and also a strategic energy security resource that shipping cannot access without cross-sector collaboration.

Biofuels are a stopgap, not a destination. The supply of biofuels is finite, and investment should be rechannelled into the viable carbon-neutral fuels of the future.

Carbon capture is essential, both for e-fuels and fossil mitigation. Carbon capture is essential both as a feedstock for e-fuels and as a safeguard against continuing fossil emissions, serving on a parallel track to green hydrogen.

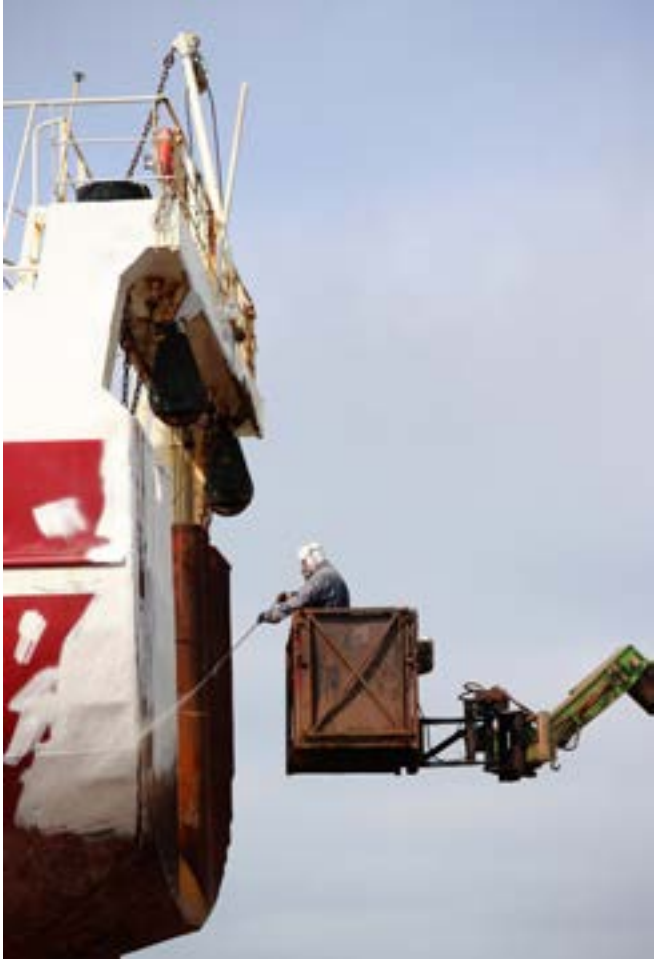
Closing the green finance gap: Unlocking capital at the scale required. Green funds are available, but new financial instruments are needed to unlock them for shipping's transition.

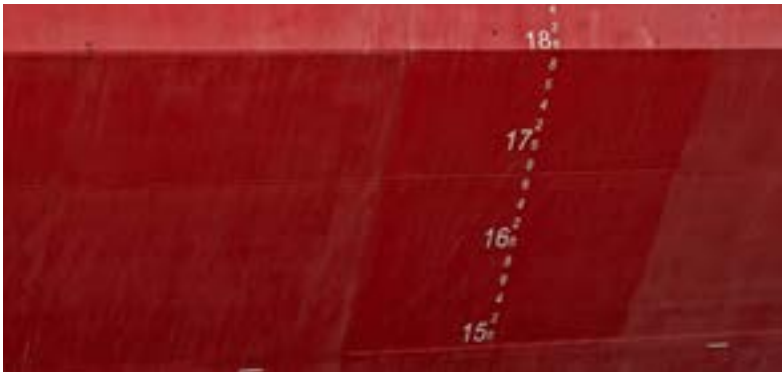
Global goals need local action: Align energy incentives with IMO net zero. Where policy alignment is strong, capital flows. Harmonize national energy policies and incentives to support the green hydrogen economy and the IMO global net zero goals.

Ports provide the platform, but who will lead? The missing piece is a forum for cross-sector collaboration, with ports as the natural nexus of activity

"As an industry, we have already proven, in a relatively short time, that we can prepare our global fleet for a decarbonized world. Now, it is time to partner with other sectors to secure the fuels we all need to carry us, finally, to that net zero shore," said Daniel Bischofberger, Chief Executive Officer, Accelleron.

Read the report at **https://bit.ly/46shBI4**.





An Australian National Marine Hull Claims Register.

Is now the time?

By Neale Cawse

The Australian Marine Insurance sector still relies on fragmented state registries and siloed Insurer records. A national hull claims register could transform underwriting, fraud detection, and buyer confidence – but lessons from New Zealand show the benefits come with real challenges.

Australia's boating community is one of the largest per capita in the world. There are 905,000 registered pleasure craft vessels in Australia, (including over 95,000 PWCs), excluding Northern Territory where there is no mandatory vessel registration required.

Boating Industry Association (BIA) Boating Data for 2023 showed distribution of registrations as follows:

Queensland:	276,000
NSW:	243,000
Victoria:	195,000
WA:	101,000
South Australia:	59,000
Tasmania:	31,000

Although there are hundreds of thousands of pleasure craft, and a diverse Commercial Pleasure Craft Fleet, operating across coastal and inland waters, when it comes to Insurance claims and vessel histories, the system is fragmented. Ownership, licensing and registration are handled by each state separately, while claims data sits within individual Insurers' systems, often inaccessible to other players in the sector.

This raises the question: is it time for a national register of Marine Pleasure Craft and Commercial Hull claims? And if so, what lessons can be drawn from New Zealand's experience?

The New Zealand Model: A Useful Benchmark

New Zealand has operated an Insurance Claims Register (ICR) since 1998. Managed by the Insurance Council of New Zealand, it provides a centralised record of personal lines insurance claims, including cars, homes, travel – and pleasure boats. See

https://www.icnz.org.nz/industry/claims-register/

Insurers contribute claims data daily, and when new policies are written or claims lodged, they can query the register to verify disclosure. The ICR has logged more than eight million claims and covers about 95% of New Zealand's personal insurance market.

The benefits are clear:

- Fraud reduction – duplicate or concealed claims are harder to lodge.
- Better underwriting – insurers can price risk more accurately.
- Market transparency – consistent records improve consumer protection.

But there are also challenges. The ICR excludes Commercial Insurance, leaving a gap in Marine Hull cover.

Why Australia Should Consider a Register

A centralised claims register for marine vessels could deliver a range of benefits to industry and regulators:

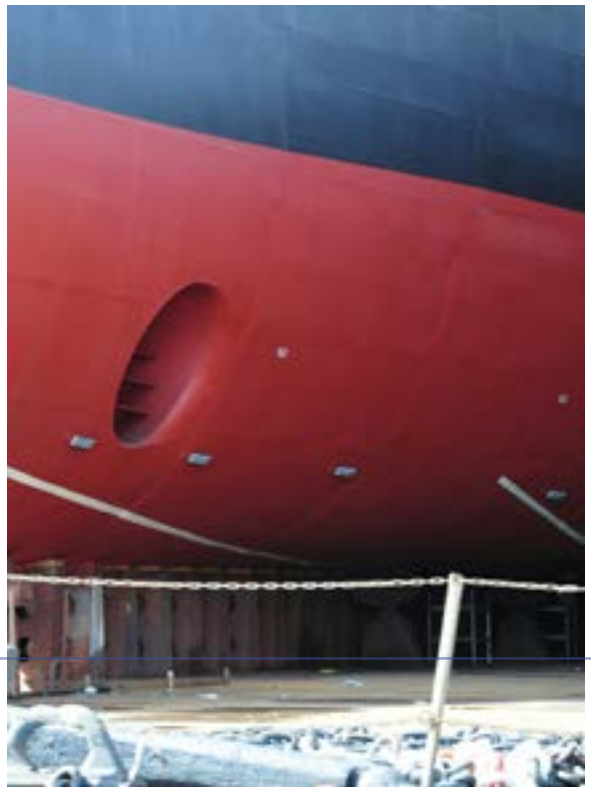
- Fraud prevention: Duplicate hull claims, which are difficult to detect across insurers today, could be identified instantly.
- Improved underwriting: A verified claims history would help insurers price risk with greater accuracy.
- Consumer confidence: Buyers could access verified vessel histories, much like vehicle checks, helping avoid damaged or encumbered craft.
- Regulatory efficiency: A uniform record across states and territories would streamline compliance, enforcement, and safety monitoring.

The commercial sector stands to gain significantly. Unlike New Zealand's register, an Australian model could capture both Pleasure Craft and Commercial Hulls, providing a more complete view of the market.

The Hurdles Ahead

Despite the advantages, a register would not be without challenges.

- Governance: States and territories already run vessel registries, so coordination would be complex.
- Privacy: Strong safeguards and dispute processes would be essential to prevent unfair or disproportionate impacts.
- Cost: Building and maintaining the IT infrastructure would require upfront investment and ongoing funding.
- Industry resistance: Some insurers may be reluctant to share claims data they view as commercially sensitive.



Funding the Register

New Zealand's ICR is funded by insurer participation. For Australia, a hybrid model could be more sustainable:

- Seed funding from the Commonwealth to build the platform.
- Annual vessel registration fees, scaled to vessel type and size.
- Industry levies on insurers and financiers, who benefit from reduced fraud and better pricing data.
- Pay-per-access fees for brokers, surveyors, and buyers seeking detailed claim or lien records.

This spreads the cost fairly across all who benefit from the register.

Lessons from Across the Tasman

The New Zealand ICR shows the value of centralised claims data – but also highlights the pitfalls. For Australia, success would depend on designing a register that is:

- Inclusive – covering both pleasure and commercial vessels.
- Transparent – with clear consumer rights to access and correct records.
- Balanced – reducing fraud and inefficiency without creating unfair market exclusions.

The Way Forward

The boating industry – Insurers, Brokers, Surveyors, Regulators, and vessel owners – has a lot to gain from a properly designed national register. But it will require careful consultation and collaboration across jurisdictions to make it work.

If done right, a Marine Hull claims register could bring reduction in fraudulent claims, assist Underwriters in refining risks, and possible reduce premiums.

The challenge now is to decide whether the industry is ready to move in that direction – and start a conversation on how to build a model (and that could include AI) that delivers benefits to the industry, and ultimately boat owners.

Neale Cawse has been involved in the Marine Industry for over 30 years, including the last 21 years as a Marine Surveyor/Assessor/Loss Adjuster for the Insurance industry, and is a member of the International Institute of Marine Surveyors since 2013.

He is currently working for McLarens Australia where he has been for the last 10 years.

Safe Carriage of Refrigerated Cargo in Containers

Steamship Mutual P&I Club has published guidance highlighting critical aspects and considerations for preventing losses associated with reefer cargo. Reefer cargo carriage involves transporting perishable or temperature sensitive goods that require controlled temperature, humidity, and airflow to maintain quality during transit. Proper handling, monitoring, and documentation are essential to prevent losses and ensure cargo integrity, the guidance advises.

Download the guidance document at
https://bit.ly/4pCTIWl

Claims and common causes

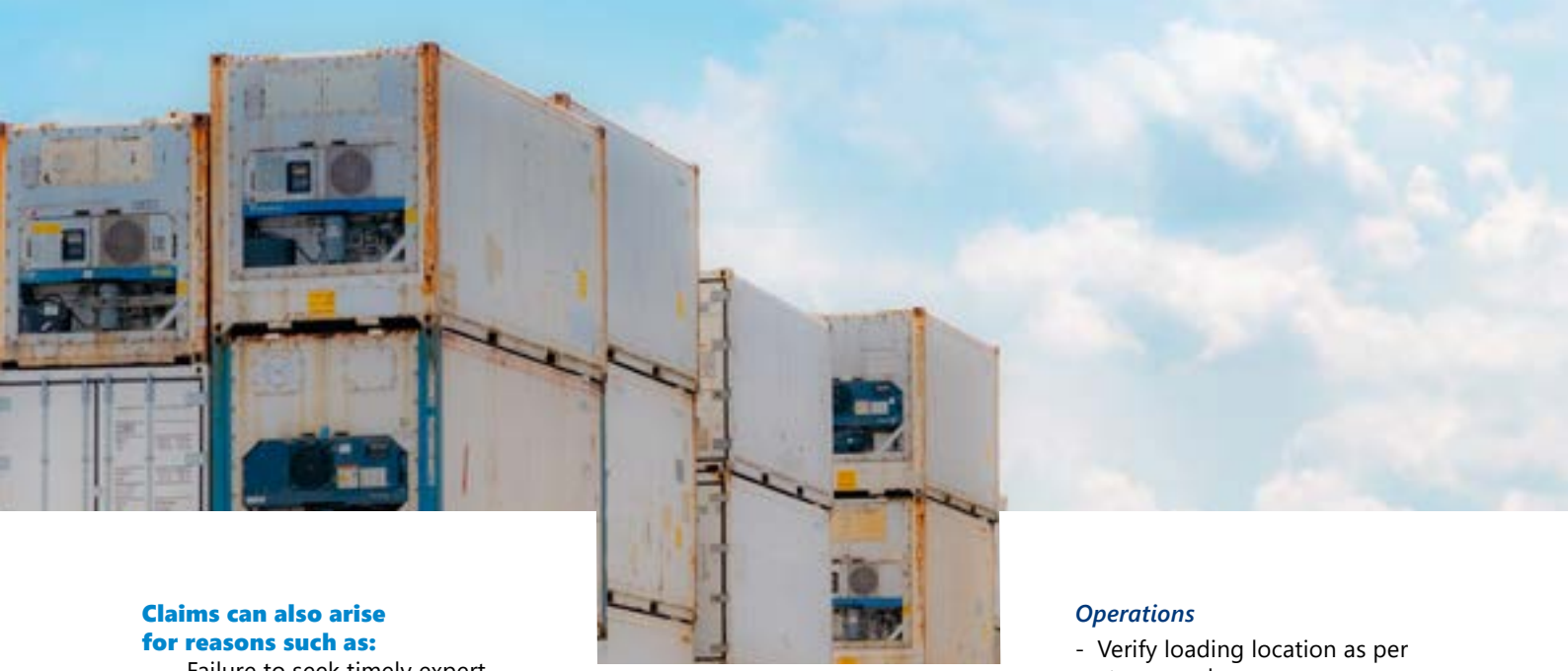
Reefer claims usually arise due to temperature variations. There can be issues which are beyond the control of the ship's crew such as related to cargo or the container.

Common issues with the cargo – This could be inherent vice or a pre-existing condition of the cargo itself, warm or incorrect stuffing of cargo, stowage of cargo above the maximum load line or obstructed airflow within the container, cargo not secured properly, damaging the reefer unit or insulation, mismanagement of temperature/ atmosphere during various stages of multi-modal transport.

Common issues with the container – Inadequate pre-trip inspection (PTI) to verify the container's structural integrity, cleanliness, and correct operation of its refrigeration unit. The interior must be clean, dry, and free of odours to prevent contamination of the cargo. Drain holes and the T-bar floor channels must be clear of any debris. A record of the successful PTI is often stored in the container's data logger and should be verified by the shipping lines before accepting the load.

The liability for reefer claims can be minimised through visual inspections, proper monitoring, record keeping and timely reporting, the controllable aspects for ship's crew. Of the controllable aspects, common contributory causes can be attributed the following:

- Inadequate pre-trip inspection including initial readings, visual condition and checking container seals
- Incorrect settings for temperature, humidity control, ventilation etc
- Poor monitoring & record keeping of required datasets
- Inadequate maintenance
- Lack of spares availability on board
- Lack of qualified staff for monitoring and maintenance
- Failure to plug and power-on reefer container upon loading
- Failure to supply continuous power to the CTU once loaded on board
- Reefers unplugged and left unpowered during transhipment or restowing at intermediate ports
- Reefer unplugged too early at discharge port CTU not identified as a live reefer and left unpowered
- Generator power failure on board, breaker power trip
- Over loading of ships power points beyond design limit
- Reefer malfunction such as failure of microprocessor control system circuits
- Failure to reject damaged units or not detecting damage to unit (during loading or pre-existing)



Claims can also arise for reasons such as:

- Failure to seek timely expert advice to resolve identified or potential issues on board
- Failure to send timely report on matters such as:
  1. clarifying discrepancies in set-point or other settings, instructions and actual condition & readings observed
  2. discrepancies in temperature observed, other issues, alarms noted etc.
  3. any power failures or other issues encountered during the voyage

CTU condition & fitness:

- Visible damages to the CTU
- Damage to reefer power cables or defective reefer power cables, sockets
- Defective refrigeration unit, alarms, sensors, safety cut-outs etc.
- Defective data logger unit or its back-up battery
- Defective data recorder
- Missing/insufficient recording charts (where paper chart recorders used)
- Incorrect ventilator settings (according to cargo type, for example for frozen cargo, the fresh-air vent should be closed)
- Damaged/defective ventilators

Stowage location:

- No safe access for monitoring or maintenance purposes
- Obstructions prevent adequate airflow / ventilation
- Proximity to odours such as from pungent cargo (hides) stowed in the vicinity of reefer air intake that can contaminate the cargo

Recommendations

Effective planning, monitoring, record keeping, and timely reporting are key to avoiding potential claims. Close monitoring of loading operations, good record keeping and reporting and/or rejecting any damaged/ malfunctioning units at an early stage of loading operations, can all minimise and mitigate against potential claims.

Steamship Mutual recommends:

Documentation and pre-planning

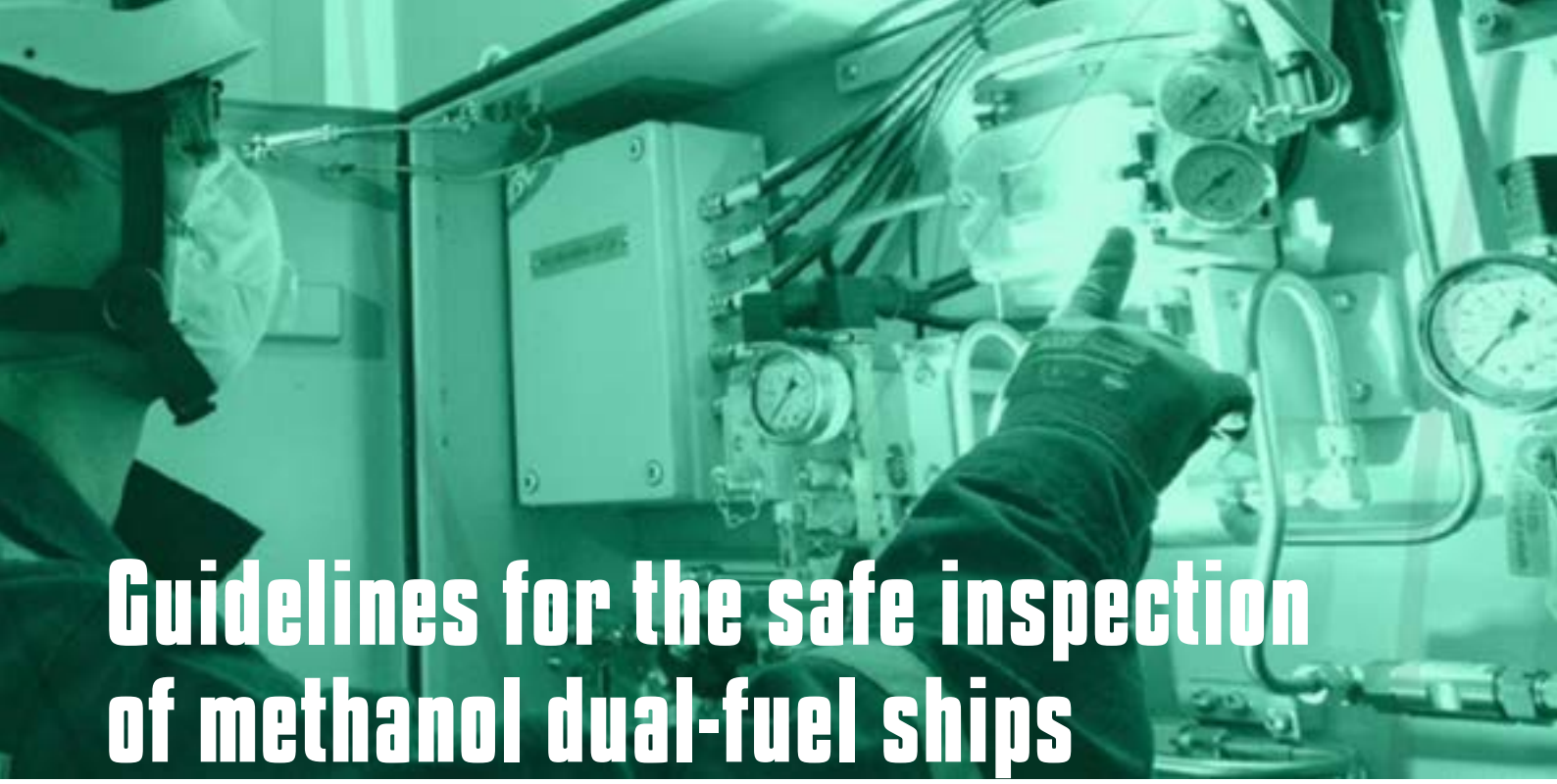
- Ensure all pertinent documentation is available and reviewed in advance
- Include cargo documentation such as the Cargo manifest, packing list, and DG manifest
- Obtain formal confirmation from shippers on cargo carriage and care instructions
- Ensure necessary spares are available
- Competent crew – experience, understanding and training
- Reefer slots fully functional – per vessel design
- Vessel's generators able to handle anticipated loads, with spare capacity
- Seasonal cargo – Additional temporary reefer slots created using powerpacks with due approvals, risk assessment and mitigation
- Stowage location with consideration to anticipated weather, safe access and proximate cargo

Operations

- Verify loading location as per stowage plan
- Brief vessel crew on plan and instructions related to reefers loading / discharging such as:
  1. safe access
  2. visual examination of reefer
  3. Reefer sockets and power cable condition
  4. power on/off
  5. initial & subsequent readings
  6. record keeping of activities
  7. timely reporting of any concerns / issues to the duty officer/chief officer
- Early identification and rejection of damaged / faulty units at the time of loading are crucial preventive measures.

Monitoring, reporting and expert advice

- Initial reading checks and regular monitoring are key components for assurance.
- Proper record keeping of the timeline for key events (such as power on/off, inspection, maintenance, repairs) helps recreate timelines to supplement the datalogger records to identify the breakpoint in the Cold Chain.
- Report any discrepancies noted at the time of loading or during a voyage to relevant stakeholders.
- Early engagement of expert advice to resolve issues and contain losses.



Guidelines for the safe inspection of methanol dual-fuel ships

Image credit: MTF

The Maritime Technologies Forum (MTF) has issued new guidelines for the safe inspection of methanol dual-fuel ships. As the maritime industry accelerates its transition to alternative fuels under increasingly stringent IMO emission regulations, methanol as fuel has emerged as a particularly attractive option, as documented by the increasing number of orders.

However, according to the Maritime Technologies Forum, methanol's unique properties, including its flammability, toxicity, and corrosivity, present distinct challenges for ship inspectors and surveyors.

A total of 41 safety recommendations have been identified across the inspection process, representing an important effort to provide practical guidance and direction to support the industry's safe adoption of methanol. The project was led by the Maritime and Port Authority of Singapore (MPA) with the participation of various MTF members.

The new guidelines cover the key areas of attention to ensure safe inspection:

- Pre-Inspection Preparations: Competency requirements, specialized training, thorough ship familiarization, emergency preparedness, and proper PPE selection and use.
- During Inspection Protocols: Dynamic Risk Assessment (DRA), CMES system testing, hazardous area management, methanol fuel system inspection procedures, and incident response readiness.
- Post-Inspection Considerations: Decontamination procedures, health monitoring (accounting for delayed symptom onset), and PPE maintenance and disposal.

"The guidelines may also be applicable to other professionals who visit or board these vessels, such as for cargo handling, maintenance and repairs, deliveries, and pilotage. MPA's participation in developing these guidelines reflects our commitment to supporting the maritime industry's multi-fuel transition towards a cleaner, greener and safer future," said Capt. M Segar, Chief Marine Officer/Senior Advisor, Maritime and Port Authority of Singapore (MPA).

Key recommendations pre-inspection

Inspector competency

- Inspectors are required to complete additional training covering the characteristics/properties, hazards, routes of entry, emergency response actions, effects of methanol and effective PPE implementation for methanol.
- Inspectors are to have a good working knowledge of methanol fires, understanding the characteristics of methanol fire and methods of control and extinguishing. Inspectors are not expected to be involved in firefighting but knowledge of such the characteristics is essential for the immediate detection of a fire and the preventing of its further spread.
- Inspectors are recommended to receive some form of basic first aid instructions and be knowledgeable in the effects and first aid treatment of methanol, ingestion or inhalation or dermal exposure.
- Inspectors are to be competent in using the personal protective equipment (PPE) in particular portable gas detectors, and EEBDs set (including the checks).

In addition to inspector competency, they should also determine whether the crew holds certificates of competency or proficiency, and relevant documentation, required for operating a methanol dual-fuel ship and handling methanol.

Ship familiarization

- Prior to boarding a ship, the inspector should utilise every available resource to become familiar with the ship and its purpose. Such resources may include for example Classification Society records, Port State Control Records, IMO GISIS, Equasis or Sea-Web.
- A Safety briefing and toolbox talk is to be held on board with ship's crew and ship safety officer. This safety briefing is to include:
  - The ship's emergency response arrangements with identification of muster point, escape routes and audio/ visual warning.
  - Identification of all hazardous zones and the probability of methanol release in those areas.
  - All ongoing work on board such as equipment maintenance, cargo operations, bunkering, loading of stores etc.
  - All areas of the ship where Methanol is stored, transferred, treated or combusted. Such areas will include bunker storage tanks, tank connection space, fuel preparation room, bunkers stations and engine rooms.
  - Inspectors should be aware that due to proximity contamination, methanol may have contaminated other areas or systems which may not normally be associated with the use of methanol.
  - Awareness of ship's design, layout and Alternative Design & Arrangements (AD&A) if any, and understanding of its designated safeguards.
  - Identify enclosed spaces onboard and whether scope of inspection would be in these areas.

Emergency awareness and preparedness

- Inspectors should be familiar with ship's emergency alarms, emergency exits, and the emergency response plans (ERP).
- Inspectors should follow any specific safety instructions given to them during an emergency.
- Inspectors should make themselves aware of the location of any safety equipment/facilities such as eye wash stations and decontamination stations onboard or in the vicinity of the locations where they will be inspecting.
- Inspectors should know how to respond if they are inadvertently caught in methanol fire, such as the stop, drop, and roll technique and remove contaminated clothing when safe to do so.

Personal protection equipment (PPE)

- All inspectors should be trained and competent in the proper use of personnel protective equipment (PPE).
- Inspectors should check and ensure their PPE is in good working condition.
- In addition to the standard PPE, the inspector should carry a properly functioning and calibrated intrinsically safe personal gas detector in accordance with the applicable standards and functions as follows:
  - Low Oxygen Concentrations
  - Methane
  - High Carbon Monoxide Concentrations
- The meter should also be suitable for use in hazardous areas and provide at least three means of alerting the user such as Light Emitting Diode (LED) lights, vibration and audible tone.
- PPE should be properly maintained and promptly cleaned if suspected of contamination.
- All PPE should be manufactured to international standards and have flame retardant and antistatic properties. Inspectors should be aware that these properties may degrade with time and number of washes.

MPC

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- To promote the professionalism and esteem within the British Merchant Navy and to those organisations directly concerned with the sector.
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- To provide independent expert advice and guidance based on our combined professional knowledge and experience unhindered by any financial or commercial interests.
- To provide guidance to regulators and employers on the professional training standards adequate for our maritime professionals.maritime standards

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Highlights from London International Shipping Week 2025

If you missed this year's London International Shipping Week in September, here's a round up of some of the key highlights from the many seminars that took place across the UK's capital...

LISW25 officially opened with ceremony at London Stock Exchange on 15 September, beginning a fast-paced week of events for the international maritime community

At precisely 8am on 15 September, the London Stock Exchange exploded into life with the Market Open Ceremony, marking an exciting start to London International Shipping Week (LISW25).

Now in its 12th year, the week-long series of events and conferences drew tens of thousands of maritime leaders to London to discuss and debate key issues impacting global trade.

Immediately following the morning's ceremony, remarks from industry and UK government leaders sounded a common theme about London's important role in keeping global trade moving. John Hulmes, Chair of the LISW25 Steering Group commented: "It's more important than ever for the international maritime community to work together to ensure the future of this vital industry. Nowhere is there a more concentrated group of maritime leaders than London this week. We welcome all conversations and debates."

Also giving remarks were Parliamentary Under-Secretary of State for Transport Simon Lightfoot MP representing Department for Transport and ATPI's Chief Commercial Officer Nikos Gazelidis.

Reinforcing the international importance of the maritime industry, LISW25 this year is introducing a Global Hub hosted at the iconic County Hall on London's South Bank. The all-day programme featured high-level seminars, exhibitions, and networking opportunities taking place under one roof. It brought together country delegations, policymakers, and industry experts to explore international trade, maritime innovation, sustainability, investment opportunities, and key global challenges.

The LISW25 Headline Conference, all day Wednesday 17 September, focused on the management of paradox in global shipping, with four sessions featuring industry and government leaders, held at the headquarters of the International Maritime Organization.

Llewellyn Bankes-Hughes, Shipping Innovation Director and co-founder of LISW, said, "London holds a crucial role at the heart of the international shipping industry and LISW enables shipping industry leaders and stakeholders to meet, conduct business, and discuss key issues, as well as to socialise and celebrate this vibrant industry which is fundamental to delivering world trade."

Photo credit: ITF Seafarers' Trust

Seafarers need to be treated like 'heroes', LISW25 hears

The vital role of seafarers and their contribution to the global economy took centre stage during one of the opening seminars at London International Shipping Week.

Titled "Maritime Charity Partners Supporting Shipping," the session which was organized by the Merchant Navy Welfare Board, and featured Capt. Kuba Szymanski, Secretary General, InterManager, as the keynote speaker. He opened the discussion by posing a thought provoking question:

Why can't we look after ourselves? We need shipowners to recognise what we are trying to do – we need to be listening to seafarers and asking them direct: what is it you need? What can we be doing for you? We need from a very early stage to love our seafarers and treat them like heroes. That's the only way we will attract more young talent to our industry.

The session highlighted the four official charities selected for London International Shipping Week 2025, the Merchant Navy Welfare Board (MNWB), the International Maritime Rescue Federation, the Sir Thomas Lipton Foundation and Project Connect.

Stuart Rivers, CEO, MNWB, also emphasized the importance of action: "Today's event – and this week – is about turning words into action to create lasting change that improves the lives of seafarers." He added, "Seafarers are the unsung heroes of our industry, and it's vital that their voices are heard."

Irene Notias, Founder and Director of Project Connect, which promotes maritime culture in schools through its Adopt-A-Ship Programme, also addressed the audience. "We provide a platform for celebrating our heroes at sea. By connecting students directly with captains, we inspire the next generation of seafarers. Shipowners can support this by enrolling their vessels - giving children real-life role models throughout the school year."

The seminar was hosted by Capt. Sir Ian McNaught, Master Mariner and former captain of several Cunard and Seabourn ships, including the final captain of the iconic QE2.

Shared intelligence is the key to maritime resilience

Pooling data does not compromise competitive advantage - it sharpens the industry's collective resilience, the Swedish Club's Thomas Nordberg highlighted during London International Shipping Week.

The industry must work together more if it is to succeed in these increasingly unstable times where geopolitical shocks can reroute trade in days, according to Thomas Nordberg, Managing Director, The Swedish Club. Sharing intelligence and data presents an opportunity to significantly increase collective influence, he highlighted.

"As marine insurers, we sit at the intersection of global trade, geopolitics, and risk. In today's volatile environment, from sanctions to cyber threats to conflict zones, no single actor has the intelligence to navigate safely alone. The future lies in joint intelligence: insurers, shipowners, and regulators pooling data, but also coordinating assessments of that intelligence to see the full geopolitical picture," said Nordberg.

By pooling resources, not only in terms of sharing data, but also by producing joint risk analyses, Thomas Nordberg believes the industry as a whole will benefit from fairer terms and more stability.

Provided that there are structured governance, contracts and selective transparency, the competitive risks become manageable while the payoff could be immense: safer seas, smarter risk pricing, and an industry resilient enough to weather geopolitical storms, Nordberg highlighted.

By sharing information on issues such as piracy corridors, sanction regimes, or checkpoints under stress, shipowners will be able to plan routes proactively reducing the likelihood of catastrophic surprises and allowing the industry to respond to those unexpected shocks that do occur in a coordinated and considered way.

But for joint intelligence-sharing to be safe and effective, Nordberg pointed out four vital enablers:

1. governance frameworks — not just for operational data, but for structured geopolitical intelligence collection, coordinated through trusted industry bodies;
2. contracts and legal clarity — covering how intelligence is shared, validated, and acted upon, while protecting competitive and national sensitivities;
3. technical controls — secure, interoperable systems that allow shared assessments without exposing sensitive raw data;
4. and aligned incentives — insurers moving towards a more uniform stance, rewarding clients who participate in intelligence-sharing, and regulators recognising collaborative risk assessments as a compliance strength.

In some cases, this may mean jointly owned vehicles to manage intelligence platforms; in others, industry-wide working groups. What matters is that our approach is coordinated, consistent, and credible - so the whole market benefits, Nordberg explains.

The over-riding message is that no single stakeholder is able to manage the complex set of challenges we all face: volatile geopolitical waters; sanctions; conflicts; piracy; cyber-attacks; and climate pressures.

In a world of sanctions, cyber threats, and shifting trade routes, no actor can see the full picture alone. If shipowners, ports, charterers, and regulators commit to joint intelligence collection and coordinated assessments, insurers can move towards more uniform and fair risk pricing - keeping not only our clients, but global trade itself, resilient, Nordberg pointed and explained that this is more than a commercial advantage; it is a strategic safeguard for society.

We must train for safety and lead with safety

Safety must be prioritized in design, training and leadership, and failure to do so can have serious consequences affecting both business and lives, Christopher J. Wiernicki highlighted at the Gala Reception for London International Shipping Week 2025.

Christopher J. Wiernicki, Chairman and CEO, ABS, following his address at the Capital Link Conference during LISW25, in which he emphasized that the regulatory landscape requires greater alignment with the industry to effectively address challenges related to safety, availability, affordability and infrastructure, has now underscored a critical message – safety must be the foundation of all efforts.

"We must design for safety, train for safety, and lead with safety. If we don't, the consequences can be profound—not just for business, but for lives. Every innovation, every operational change, must be tested against one question: Does it make us safer?" said Wiernicki during his welcome address at the Gala Reception.

Wiernicki also emphasized the importance of human beings in the shipping industry and how the role of the seafarer is evolving. He pointed out how behind every smart ship, every digital dashboard, and every data stream, there is still a human being making critical decisions, as well as highlighted that investment in their training and continuous development is essential.

It is not just about efficiency, it's about dignity, safety and long-term resilience, Wiernicki explained.

"This week has highlighted the extraordinary complexity and resilience of our industry - and reminded us that at the heart of every vessel, voyage, and supply chain is still the seafarer. Their skill, dedication, and adaptability are the lifeblood of global trade,"

Wiernicki said.

Christopher J. Wiernicki. Photo credit: ABS

Global Hub launch marks a defining moment at London International Shipping Week

The launch of the Global Hub at London International Shipping Week underscored London's pivotal role as a centre of international maritime trade and collaboration. With more than 400 million tons of cargo passing through UK seaports in the past year, the Hub was presented as a platform for global dialogue, innovation, and collective action on the most pressing challenges facing the shipping industry.

The ceremony brought together senior government officials, industry leaders, and international stakeholders, all echoing a shared commitment to safeguard jobs, strengthen the UK's maritime leadership, and accelerate decarbonisation.

Mr Chris McDonald, MP, the UK Minister for Industry, highlighted the government's £448 million investment in the UK Shore project, alongside additional funding for energy initiatives, as critical measures to drive sustainable growth in Britain's maritime sector.

His Excellency Dr Rumaih Al-Rumaih, Vice Minister of Transport and Logistics, Kingdom of Saudi Arabia, also addressed the audience, emphasising Saudi Arabia's ambitious environmental goals, including planting 100 billion trees and sourcing 50% of its energy from renewables by 2050.

The discussions at the Global Hub also explored the geopolitical shifts reshaping maritime transportation, notably Greece's emerging leadership role in emission reduction, and tackled the regulatory hurdles surrounding nuclear energy and the adoption of new fuels. Speakers stressed the need for cross-industry collaboration to advance technologies and achieve global decarbonisation targets.

Throughout the day, the Global Hub hosted 16 major events, featuring participation from the USA, Europe, the Middle East, and Asia. The scale of engagement reflected LISW's status as a truly international gathering, with an estimated 47 official delegations attending to exchange ideas and strengthen partnerships.

Immediately following the ceremony, John Hulmes, Chair of the LISW25 Steering Group, remarked, "It's more important than ever for the international maritime community to work together to ensure the future of this vital industry. Nowhere is there a more concentrated group of maritime leaders than London this week. We welcome all conversations and debates."

IMO Conference takes centre stage at London International Shipping Week

London International Shipping Week hosted the IMO Headline Conference under the theme 'The Management of Paradox in Global Shipping'. The high-level gathering brought together over 700 senior leaders, policymakers, regulators, and industry experts to explore the competing forces shaping the future of maritime trade, and the leadership required to navigate an increasingly complex global landscape.

The conference programme examined the contradictions and opportunities at the heart of global shipping through a series of keynote speeches and panel sessions featuring some of the leading voices in the industry. From balancing decarbonisation with economic growth, to pursuing resilience in a fragmented world, the conference provided a platform for critical reflection and forward-looking dialogue.

Following a welcome address by Arsenio Dominguez, Secretary-General of the IMO, First Sea Lord and Chief of Naval Staff, General Sir Gwyn Jenkins, delivered a keynote speech, emphasising the vital importance of industry collaboration, "By sharing intelligence, supporting resilience planning, and ensuring the safe passage of commercial vessels, we can help foster a maritime environment where trade thrives and risks are effectively mitigated."

The government address was given by the UK's new shipping minister, Keir Mather MP, who said his government would reverse what he called "systemic underinvestment fuelled by short-term political choices" and reiterated the "clear vote of confidence" in the UK's maritime sector signalled by the more than £1.1bn worth of investment. This includes funding earmarked for the UK's SHORE Programme, which provides funding for decarbonisation projects, including shore power charging points.

The importance of investment within the industry continued throughout the day. Many sessions highlighted the industry's inherent fragmentation and the pressing need for co-operation and collaboration as shipping navigates decarbonisation, digitalisation, and a rapidly evolving geopolitical climate.

Moderated by Nusrat Ghani, MP, Deputy Speaker at the House of Commons, the first panel explored shipping's resilience amid climate change and geopolitical challenges. Speakers debated whether shipping, through its scale, efficiency, and adaptability, could act as a stabilising force amid rising protectionism and fractured economies. Key issues discussed included the reluctance of ship-owners to share data, security risks from falsely flagged vessels, and the fragmented approach to decarbonisation.

With the IMO net zero target set for further discussion next month, the following session focused on the shipping industry's leadership role in establishing a globally binding carbon price under the net-zero framework. Speakers including Jan Dieleman, President of Cargill Ocean Transportation and Chair, Global Maritime Forum, and Katy Ware, Head of Regulatory Affairs at Zodiac Maritime, stressed the importance of multilateral agreements and highlighted the progress already made in decarbonisation.

They also acknowledged the serious challenges being faced by the industry, including the slow adoption of energy-saving technologies, the impact of the dark and shadow fleet.

Mikael Boe, Chairman & CEO of Core Power highlighted the potential of nuclear technology in shipping, following the recent deal announced for new nuclear stations between the US and UK: "We are now facing the possibility of having civil maritime nuclear propulsion of large vessels. These ships are faster, they carry more cargo, they don't emit anything and could effectively plug into ports and help power them." he said.

Throughout the discussion, speakers emphasised the role of charterers, customers, and financial measures in driving decarbonisation, while underscoring the importance of global collaboration. The session concluded with a call for continued innovation and investment in technology to secure the industry's future.

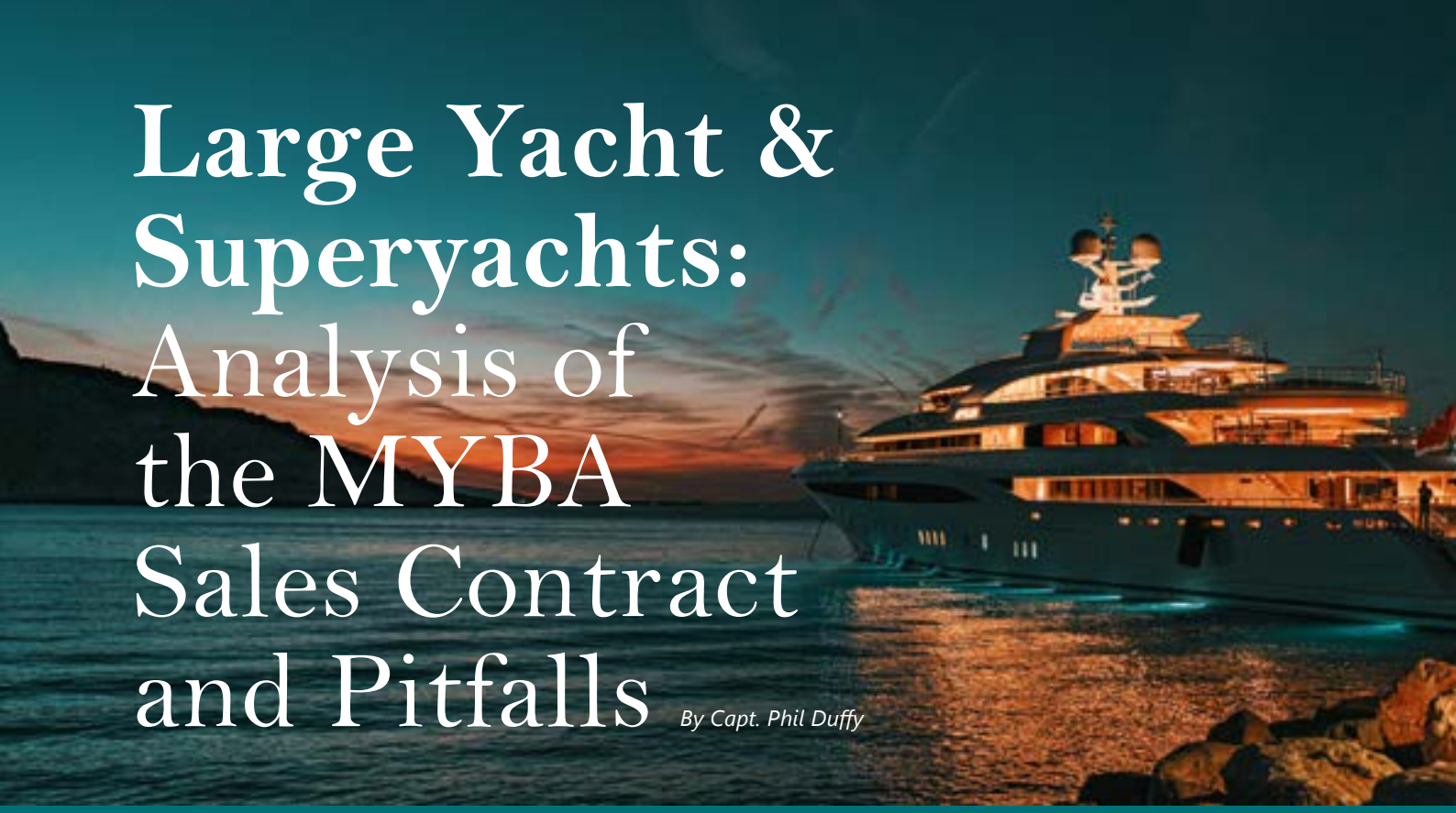
The afternoon sessions focus turned to the rapid pace of digital transformation and the strategic opportunities it can offer. Following a keynote address by Ben Palmer, OBE, President of Inmarsat Maritime and Chair of the LISW Technology and Innovation Working Group, the panel discussed the need for collaboration and investment in emerging technologies.

Emmanuel Grimaldi, Chairman of the International Chamber of Shipping, highlighted the importance of upskilling seafarers and adopting new fuels such as biofuels and ammonia, while Nick Brown, CEO of Lloyd's Register, stressed the role of data standardisation and the need for trust in driving innovation.

Karrie Trauth, EVP and Global Head of Shipping & Maritime at Shell also stressed the importance of using technology to enhance wellness at sea amidst reports of an increasing shortage of seafarers in future. "The reality is, if we lose even the seafarers we have today, without attracting any more to the industry, none of us wins", she said. The session concluded with a focus on leadership, emphasising agility, experimentation, and strategic vision as essential to navigating a digitally enabled, AI-led world.

During the closing discussion, the panellists reflected on a point made by the First Sea Lord: "stability is a fiction." They noted that the industry's success relied not on longing for stability, but on recognising and embracing the risks and opportunities ahead. Nick Brown, CEO of Lloyds Register, highlighted the importance of fostering a culture where colleagues feel empowered to experiment, succeed, and learn from failures and celebrating those failures as much as successes.

The LISW25 IMO Headline Conference underscored London's enduring role as the global hub for maritime dialogue, decision-making, and collaboration. At a time when the industry stands at a crossroads, the event provided a timely platform to chart a course for resilience, renewal, and sustainable growth amid the paradoxes shaping global shipping.



Large Yacht & Superyachts: Analysis of the MYBA Sales Contract and Pitfalls

By Capt. Phil Duffy

This analysis relates to the MYBA Memorandum of Agreement, a standard form published by the Mediterranean Yacht Brokers Association.

1. Overview of the MYBA MOA

The MYBA (Mediterranean Yacht Brokers Association) Memorandum of Agreement (MOA) is the industry-standard contract for the purchase and sale of large yachts. It is designed to balance the interests of buyer and seller, but imposes specific duties relating to survey, sea trials, and acceptance that the surveyor must navigate carefully. Although the surveyor is not a party to the contract, their findings often trigger significant contractual consequences, including acceptance, rejection, renegotiation, or cancellation.

2. Key Clauses Relevant to Surveyors

- Condition Survey & Sea Trial - The Buyer may conduct a full condition survey and sea trial before acceptance. Surveyors' reports become critical evidence for acceptance or rejection.
- Notice Periods and Deadlines - Strict timelines apply for arranging surveys, conducting trials, and reporting deficiencies. A late or incomplete report may weaken the Buyer's rights.
- Acceptance or Rejection - The Buyer must declare acceptance or rejection within a set timeframe after survey. Ambiguous reporting may result in default acceptance.
- Defect Remedies - Only material or operational defects ordinarily justify remedies. Surveyors must avoid overstating or understating defects.
- "As-Is, Where-Is" - The yacht is sold in its current condition, with limited warranties. The surveyor's findings may therefore be the Buyer's primary safeguard.

2.1 Defects Affecting Operation (MYBA Definition)

A defect is any issue not previously disclosed in writing that, in the professional opinion of the Buyer's marine surveyor, renders the yacht unseaworthy and/or compromises the operational integrity of her systems or machinery. A concise, signed Surveyor's Statement should set this out in writing. Defects should be graded as follows:

- **A.** Structural, mechanical, or other defects affecting strength, seaworthiness, or safety, requiring immediate attention.
- **B.** Structural, mechanical, or other defects not requiring immediate attention but to be monitored or remedied within a specified period.
- **C.** Non-essential or cosmetic defects, the repair or replacement of which is subject to discussion and at the discretion of the owner.

Note: A defect classified as cosmetic may still involve costly repair - for example, cracked or damaged marble fixtures or fittings.

2.2 Typical Defects Qualifying as Class A

- Propulsion/steering faults preventing rated power or safe manoeuvring (engines, gearboxes, steering gear, CPP control).
- Hull/structural or watertight integrity compromised (active leaks, shaft-seal failure, critical through-hull defects).
- Electrical/automation failures jeopardising safe operation (blackouts, inoperative alarms/controls).
- Exhaust/after-treatment issues creating unsafe backpressure or preventing compliant/legal operation.
- Safety/class/flag non-compliance that could cause detention or prohibit operation (e.g., inoperative ER fire detection).
- Fuel/cooling system failures causing shutdowns or overheating at normal loads.

2.3 Issues Usually Not Qualifying (Absent Knock-On Effects)

- Purely cosmetic issues (e.g., paint gloss/orange peel, minor interior wear).
- Convenience/amenity systems (AV/IT, hotel services), unless their failure renders a commercially-operated yacht non-compliant.
- Items disclosed in writing prior to MOA execution (and accepted by the Buyer through proceeding with the contract).

3. Pitfalls for the Surveyor

- Overstepping Role - Limit the report to condition and risk assessment. Do not advise on contract law or financial terms.
- Wording of Reports - Avoid vague terms such as 'appears sound.' Use precise, factual, evidence-based language supported by measurements and photographs.
- Liability Exposure - Missed defects risk Buyer claims; overly negative reports may risk Seller claims. Professional Indemnity (PI) insurance and clear disclaimers are essential.
- Misalignment with Timelines - Delayed reports can compromise the Buyer's rights under the MOA. Inspection schedules must align with contract deadlines.
- Disputes Over 'Material/Operational Defects' - This definition may be contested. Surveyors should explain the impact on safety, operability, and cost, but leave acceptance decisions to the client and their legal counsel.

4. Best Practices for Surveyors Under the MYBA MOA

- Clarity - Use precise, technical language, supported by photos and measurements.
- Timeliness - Deliver reports within contractual deadlines.
- Neutrality - Remain objective; avoid subjective or speculative statements.
- Context - Explain defect implications (safety, operability, cost) while leaving acceptance decisions to the client/legal counsel.
- Documentation - Maintain detailed notes in case of arbitration or litigation.
- Awareness - Understand the MYBA MOA framework to appreciate how your report influences contractual rights.

5. Surveyor's Statement - Suggested Wording

"In the undersigned surveyor's professional opinion, the following defects affect the operational integrity of [system] and/or render the yacht unseaworthy: [brief facts + test data]. These defects were not disclosed in writing prior to the MOA. Remedies requested: repair scope and/or price allowance."

6. Attachments Checklist (with the Buyer's Notice)

- Sea trial log extracts (load points, temperatures/pressures, alarms).
- Photographs and short video clips evidencing defects.
- Laboratory reports (oil, coolant, fuel) supporting mechanical conclusions.
- OEM excerpts (limits/specifications) and relevant class/flag references.
- Quotes or budgetary estimates for rectification (where available).

7. Conclusion

The MYBA Sales Contract places the surveyor in a highly influential position, despite their non-party status. Technical findings can determine the outcome of multi-million-euro transactions. The primary risks are unclear reporting, exceeding professional boundaries, and missing deadlines. A disciplined, neutral, and well-documented survey process - combined with clear articulation of operational defects - offers the surveyor the best professional protection.

8. Surveyor's Professional Indemnity Insurance and its Implications

Professional Indemnity (PI) insurance is an essential safeguard for surveyors, providing protection in the event of claims alleging negligence, error, or omission in the execution of professional duties. PI insurance covers legal defense costs and, where applicable, compensation payments, thereby protecting both the surveyor and the client from substantial financial risk. Its existence enhances client confidence by ensuring a structured mechanism to resolve disputes. However, PI insurance policies are subject to limitations, exclusions, and defined coverage thresholds. Not all defects, claims, or losses will necessarily fall within the scope of cover. It is therefore incumbent upon surveyors to maintain adequate and current PI insurance aligned with the scope of services offered, and for clients to understand the inherent boundaries of such protection.

Legal Caveat

This chapter is provided strictly for general information and should not be construed as legal advice. The MYBA MOA and other yacht sale contracts are complex legal documents, and their interpretation requires the expertise of qualified legal counsel. Surveyors are not parties to these contracts and must refrain from giving legal or financial advice under any circumstances. No responsibility or liability whatsoever is accepted by the author or publisher for any loss, damage, claim, or consequence arising directly or indirectly from reliance on the contents of this chapter. Readers must obtain independent legal advice tailored to their specific situation before taking any action based on the matters discussed herein.

About MYBA

MYBA The Worldwide Yachting Association is an international professional organisation, founded in 1984, with both Corporate and Individual Members. The Association's mission is to inspire, support and empower people in the superyacht industry to be their best: by maintaining business at the highest level of ethical conduct, committing to equality and diversity, protecting the environment, sharing knowledge and combining strengths, building strong relationships, and continuously developing, both professionally and personally.

All MYBA Members possess a proven track record of professional excellence, and they are involved at many levels and in most of the disciplines of the superyacht industry. MYBA is the Association that brings them together, encourages them to work in harmony to ensure that the industry continues to flourish and guides them on the highest ethical and technical standards.

COMPARISON OF LARGE YACHT SALES CONTRACTS: MYBA VS BIMCO VS U.S. VERSIONS

1. MYBA MOA (Mediterranean Yacht Brokers Association)

Primary Use: Large yachts, especially in Europe and Mediterranean transactions.

Key Features:

- Includes sea trial and condition survey rights (often referenced in core clauses).
- Strict timeframes: typically tight windows following sea trial and survey for acceptance/rejection.
- Defines Buyer's rights for remedies, focused on material/operational defects.
- Generally "as-is, where-is" sales, with limited warranties.

Pitfalls for Surveyors:

- Very short timelines; definitions of 'material/operational defect' are open to debate.
- Surveyor's statements carry significant weight — precision is critical.

2. BIMCO SALEFORM (Norwegian Saleform 2012 / BIMCO MOA)

Primary Use: Commercial ships, occasionally larger yachts (particularly over 500 GT).

Key Features:

- Commercially-oriented terms; inspections typically framed as dry-dock or diver inspections.
- Seller often obliged to remedy deficiencies if not in agreed condition (subject to rider clauses).
- "As-is, where-is" basis unless amended; includes detailed documentation and delivery clauses.

Pitfalls for Surveyors:

- Reports can directly influence major commercial remedies (repairs, postponements, cancellations).
- Emphasis on class, certificates, and seaworthiness rather than cosmetic issues.

3. U.S. Versions (FYBA / YBAA MOA)

Primary Use: U.S. yacht transactions, including smaller and mid-size yachts.

Key Features:

- Typically longer inspection and acceptance windows than MYBA (10–14 days is common).
- Sea trial and survey usually conducted together; Buyer discretion for acceptance/rejection is broad.
- Deposits and escrow subject to stricter U.S. brokerage laws; strong jurisdiction and arbitration clauses.

Pitfalls for Surveyors:

- Buyers may reject for almost any reason post-survey, so wording carries greater commercial weight.

4. Key Comparative Points

- MYBA: Balanced but strict deadlines; operational defects are central.
- BIMCO: Commercial focus; emphasis on class/seaworthiness over cosmetic considerations.
- U.S. Versions: More Buyer-friendly; broader rights and longer timelines.

5. Implications for Surveyors

- MYBA MOA: Be precise, timely, and neutral; define operational defects clearly.
- BIMCO Saleform: Focus on class compliance, certificates, and seaworthiness.
- U.S. Contracts (FYBA/YBAA): Avoid subjective or overly negative language; Buyers may withdraw for minor reasons.

The Polish yacht industry: a blueprint for long-term success

Over the last few decades, the Polish boat and yacht industry has grown incredibly. Top quality, technological advancement, innovation, resourcefulness are all features that consumers have become used to associating with Polish watercraft of today. These features, however, do not simply define the end product; they also characterize the very manufacturing process itself. This would not have been so, had Polish boatyards not placed a great deal of emphasis on developing their co-operation with the R&D sector, cultivating a culture of wise management, and promoting the education of future technical and managerial personnel.

At full sail

Following the collapse of communist rule in 1989, Poland has enjoyed a period of rapid and successful development in all areas that define a modern democratic state. Today, Poland's economy is the sixth largest in the EU, characterized by a stable GDP growth rate that presently amounts to 3.2% and exceeds the EU average nearly three times. One of its main branches is the marine industry, with the boat and yacht building sector as the main calling card.

Today, Poland is the leading boat and yacht manufacturer in Europe and a close runner-up to the United States with regard to the global production of 6 to 12-metre motorboats. The manufacturing capacity of Polish shipyards, including globally-recognized Conrad Shipyard, Galeon or Northman, is estimated at 25 thousand yachts and boats per annum. The production is also outsourced by various companies from around the world, such as Saxdor, Jeanneau, Beneteau, or the U.S.-based Sea Ray, Bayliner and Quicksilver. While motor yachts constitute a significant part of the entire output, Polish shipbuilders are also praised for their achievements in the superyacht category, top-tier leisure watercrafts reaching 44 meters in length and luxurious enough to appeal to both royal families and the most famous celebrities. Sunreef is another innovative Polish company building sustainable yachts.

Excellence in one field does not imply Polish manufacturers have abandoned their continuous effort to expand other areas of their craftsmanship. Despite the fact that over the last ten years the production focus has been steadily shifted toward larger, better equipped and more expensive vessels, the Polish boat industry is still widely recognized for its extensive output. Sailing, motor and superyachts aside, catamarans, floating houses, and other ready-made watercrafts of all kinds and sizes are all included in the offer.

Furthermore, apart from the vessels mentioned above, the Polish marine industry is known for its high-quality boat and yacht components and accessories that can be obtained separately, such as hulls, sails or masts, as well as an endless supply of boat-care products, paints, varnishes, primers, fillers, adhesives, resins, and basically anything that is boat-related.

The future starts now

Over the last two decades, the Polish boat and yacht industry has developed substantially. It is a great achievement of the entire industry: a smart reinvestment policy to introduce state-of-the-art technologies, comprehensive R&D and design works, but also tailor-suited education programs.

Polish shipyards have begun to reap the benefits coming from the long-time co-operation with Polish universities, established with a view to conducting bio-composite research and tests, researching alternative power drives, improving waste management and recycling methods, as well as perfecting other aspects related to the boat life cycle assessment. In parallel to the industry itself, its scientific and research base has also seen a major development, which contributed in a significant way to the success Polish motorboats and yachts enjoy on the global market today. Establishing such a productive R&D base was an ongoing endeavour that took many years and called for a concerted effort of thousands of skilled and highly qualified employees.

Accomplished technicians and highly educated managerial personnel have always been one of the main focal points for the industry. Future members of the industry's managerial staff and its would-be leaders begin their specialized training in secondary schools and continue their journey through the ranks of higher education. This is to secure Poland's dominant position on the market and inspire further development of the boat and yacht sector.

Sustainable solutions and modern technologies

As mentioned before, a smart policy of reinvesting most of the income generated by the industry over the last two decades enabled the modernization of Polish shipyards. Today, they are regarded as one of the most advanced facilities in Europe. Newly implemented technologies and manufacturing methods not only improve work efficiency and increase the production output, but they also help the industry meet the most restrictive regulations pertaining to the natural environment. The Polish yacht industry is going green.

The principles of sustainable development are adhered to at every stage of production. Basic yacht components are being made of glass, carbon and Kevlar fibres with the use of vacuum, infusion and prepreg methods. Polish shipyards are becoming more and more interested in natural fibre composites. Some are already working on vessels made of flax fibre reinforced composites and biological resins, an environment friendly alternative to traditional composite structures made of glass fibre reinforced polyesters that display similar properties. Most of the materials utilized are going to be fully recyclable with the aim of reducing the carbon footprint.

As far as eco-friendly emission-free driving is concerned, more and more fuel cells are appearing on the domestic market, whereas high-power inverter systems based on lithium batteries are becoming more and more popular. Solar panel systems are quickly becoming a common standard, and are being integrated into the composite structure of Polish yachts. They are lightweight and can be easily mounted onto any surface of the watercraft to provide increased solar energy. The newest solution, however, introduces hydrogen fuel cell power generators, small hydrogen power plants that employ industrially available hydrogen cylinders to solve the refuelling issue.

The green revolution has already begun, and the Polish yacht sector is on board with it.

Investment opportunities aplenty

The Polish boat and yacht industry has not simply become the leading force in the field; in recent years it has started to separate itself from the pack. Just at the last Polboat Yachting Festival alone, the largest boat show in the country, the attendees had the chance to view multiple brand new units coming from Polish boatyards. It has become abundantly clear this Polish industry strives to set the competitive bar ever higher and is keen to respond to any ongoing market fluctuations with a quick and decisive offer. It also wants to stimulate demand for newer and better products that will guarantee even greater comfort, pleasure and safety to sailing enthusiasts all over the globe.

At the same time the industry tries its hardest to complete every manufacturing process in such a way as to preserve the natural environment. Compliance with sustainable policies is observed at every production stage. Modernized factories, university-based research, bio-composite testing, these are all but means to an end: to turn the industry green and further its development. This is the perfect time to invest.

The development of the Polish yacht industry would not have been possible without multi-layered co-operation established between various industries, State and science institutions, and Polish entrepreneurs, with POLBOAT (the Polish Chamber of Marine Industry and Water Sports) leading the way. POLBOAT is the standard-bearer for the entire sector and its representative within the ranks of international bodies such as ICOMIA or EBI.

The international expansion of Polish yacht builders is supported by the Polish Investment and Trade Agency (abbr. PAIH). This State body with a network of offices spanning the entire globe (including Chicago, Houston, Los Angeles and New York) functions also as the first point of contact for every American businessperson interested in investing in the Polish yacht sector or wishing to import Polish yachts.

UK government's call for evidence to decarbonise vessels below 400 GT is answered

Earlier this year, the UK government put out a call for evidence (CfE) to the UK maritime sector as they consider how to decarbonise the small boat sector in the future.

The Inland Waterways Association and IIMS both made submissions as part of the CfE consultation, which is now closed pending formal review.

But first, what was the CfE seeking to find out and achieve?

Purpose of the CfE

The maritime decarbonisation strategy sets out the government's aim for UK domestic maritime to achieve net zero fuel lifecycle greenhouse gas (GHG) emissions by 2050. This will also deliver wider environmental benefits including for air quality, which will support the government missions to become a clean energy superpower, kickstart the economy and ensure people live well for longer.

The strategy includes a commitment to introduce emission reduction measures for vessels below 400 gross tonnage (GT) and in targeted subsectors, recognising that some subsectors will be able to decarbonise more quickly than others.

The CfE was intended to gather further evidence to inform policy making relating to this commitment and to ensure that government interventions are effective, proportionate, well timed and meet emission reduction goals. It sought to attract input from a wide range of stakeholders.

Aims of the CfE

In this CfE, the government was seeking to gather evidence on:

- the current and expected future capital and operational costs of zero, or near-zero, emission vessels.
- the current technology available and expected future technology developments to enable the transition away from traditional fuels such as diesel heavy fuel oil, marine diesel oil and marine gas oil.
- the type and quantity of GHG emissions and air pollutants emitted by traditionally fuelled and zero, or near-zero, emission vessels.
- the shipbuilding capacity and capability of UK shipyards to build and retrofit zero, or near-zero, emission propulsion vessels.
- the infrastructure, such as refuelling, shore power and charging capabilities at ports/marinas/harbours, currently in place and the future infrastructure needed to enable this transition.
- current access to finance to buy and build zero, or near-zero, emission vessels.
- issues of compliance and implementation, for example, there is no vessel registration system for many subsectors.
- the different methods of data collection and whether systems are already in place to measure emissions.
- any opportunities or barriers to this transition.

The Inland Waterways Association (IWA), through its Sustainable Boating Group, made a Submission to the Department for Transport's (DfT's) CfE on decarbonising smaller vessels.

It has looked at propulsion and the use of domestic energy on leisure boats. The Group has a clear strategy to decarbonise this sector, so a submission was made to the DfT on that basis.

The first part of the strategy relates to new-build craft. It recognises that when high-volume diesel engine production ceases, these engines will not be available to marinise, and inland waterways craft will use electric drive. Most boat builders today offer an electric option. However, until either an adequate recharging network is installed or there is a step change in battery technology, even with the support of photovoltaic cells, a back-up generator will be required. The installation of sufficient charging points, said the group, is unlikely without government assistance.

Bowman Bradley, chair of the IWA Sustainable Boating Group, said, "We believe that there is a clear technological pathway for decarbonisation of the inland waterways leisure fleet which can be achieved quickly and at low cost. However, given the current state of inland waterway funding and regulatory obstacles, it cannot happen without the assistance of central government."

The existing fleet is large and will be around for many years. Most will not be converted to electric drive. Hydrotreated vegetable oil (HVO) has been identified as a sustainable 'drop-in' substitute for mineral diesel, both for existing engines and back-up generators, which can bring about an immediate reduction in emissions without capital investment. Unfortunately, HVO, for reasons of price and regulatory complexity, is not readily available to leisure boaters.

The IWA is working with the Cruising Association, The Royal Yachting Association and British Marine to ask the Government to adopt policies that will make HVO available to leisure boaters at an acceptable price.

"The IWA is concerned that in the pursuit of renewable diesel, non-sustainable sources are avoided, and support government measures to that end. We believe that decarbonisation is desirable and deliverable but will not happen without government assistance," read a statement.

IIMS Past President, Geoff Waddington, made the submission on behalf of IIMS and the Maritime & Professional Council of the UK.

Spotlight on the Finnish boat market

Finnish boating industry sparks into life post pandemic

Finland's boating industry is showing signs of recovery following the downturn caused by the pandemic. Vessel registrations have risen, with nearly 3,000 more boats recorded in the past year, while the used boat market has grown by 11 per cent compared with 2024.

As of July 2025, the national watercraft register listed 246,000 boats, including 214,000 motorboats. This represents an increase of 2,928 vessels between July 2024 and July 2025.

"According to first registrations, the boating sector would appear to be at its lowest point this year. However, the sale of unsold stock boats has significantly boosted the total fleet size. These boats are not visible in the first registration statistics," explains Jarkko Pajusalo, CEO of the Finnish Marine Industries Federation Finnboat.

The growth is largely in outboard-powered boats, which rose by more than 2,200. The register, maintained by the Finnish Transport and Communications Agency Traficom, covers boats at least 5.5 metres in length or with engine power of 15 kW (around 20 hp) or more, as well as personal watercraft.

First registrations and the total fleet show contrasting trends. First registrations of motorboats fell by 17 per cent, yet the total number of motorboats in the register increased by the same proportion.

"The reason is the agreed statistical method with Traficom, where 'new' boats are defined as those built in the current year and the two preceding years. During the pandemic, many boats were built but remained unsold, and their later sale does not show up as new registrations. This statistical anomaly is quickly resolving itself, so there's no reason to change the method," Pajusalo adds.

The increase in the number of registered boats has mainly come from outboard-powered models, long favoured by Finnish boaters. Their number rose by more than 2,200.

The Helsinki In-Water Boat Show Uiva Flytande, held in Lauttasaari, Helsinki, attracted nearly 11,000 visitors.

"After the event, there's definitely a cautiously positive mood among consumers," says Mika Vanhala, CEO of Oy Esco Ab, a boating equipment retailer.

According to Jussi Sepponen, CEO of Mercury Marine EMEA, the show met engine manufacturers' expectations. He says that the Finnish boating market is beginning to recover in line with European trends.

"The marine industry often emerges from recessions later than other sectors. Now, however, it feels like we might even help pull the economy upward. That is a very positive – and perhaps pleasantly surprising – development," Sepponen says.

Sepponen also points to the shift towards outboard engines in larger boats. "This has been enabled by engine development. Engines are bigger, more powerful and efficient, making it practical and economical to run large boats with outboards. This trend is reshaping both boat design and buying behaviour," he explains.

At Uiva Flytande, EfxSails's Matti Luhtala presented the company's sailmaking services alongside a line of bags made from recycled sails, created with Islander Company. Luhtala says the show offered opportunities to meet customers, discuss their needs and present services.

"Sailmaking is a design profession, and part of the designer's role is to understand the sailor's true needs. When a sail is finally completed, it is often the result of close collaboration between the sailmaker and the sailor. At Uiva, I believe we succeeded in creating that dialogue with our customers," Luhtala explains.

The show also highlighted strong interest in larger cruising yachts. Nine were exhibited, including models from Lagoon, Hanse, Dehler, X-Yachts and Beneteau.

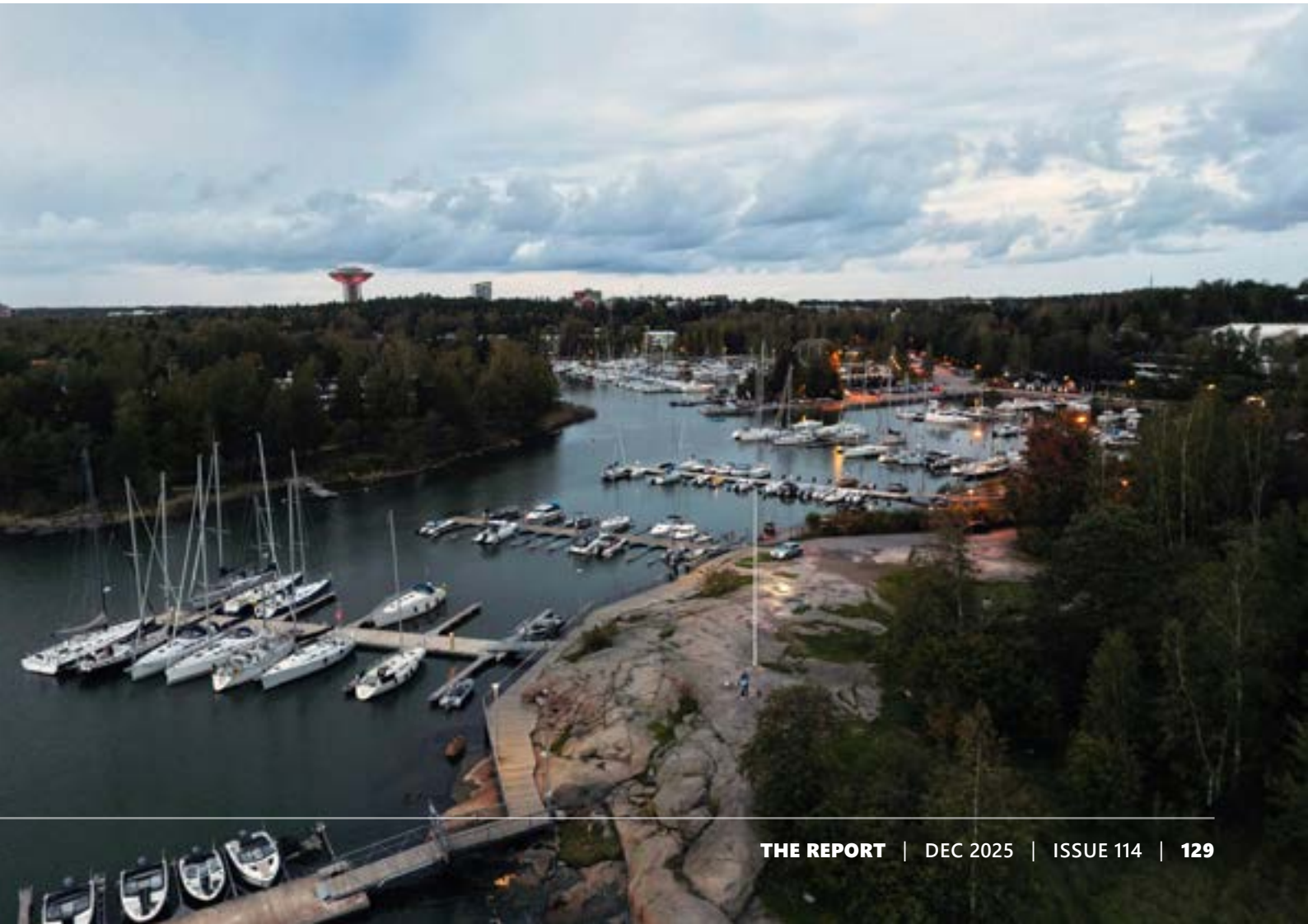
Samuli Leisti, importer of Danish X-Yachts, reports that 2025 is shaping up to be the strongest year in 15 years for his company, Ajola Yachts and Hansail. "Several deals are in progress, and one order has already been signed," Leisti says. His brokerage firm, Blue Ocean, has sold 80 used boats by August, surpassing last year's total of 67. About one-third of these are sold within Finland, with the remainder largely exported.

This view is shared by Antti Saarisalo, CEO of Ajola Yachts, who notes strong visitor interest in sailing yachts. "The pontoons were lively throughout, and the number of onboard visits over the weekend matched those of the much larger Helsinki International Boat Show in February," Saarisalo says. Among Ajola's brands, three new Beneteau yachts were registered this year.

Simon Lindkvist, CEO of Linex-Boat, builder of Nord Star yachts, highlights the show's timing. "Making a purchase decision now means the boat will be ready for next summer," he says. The Nord Star 42+ drew visitors from Estonia, which Lindkvist describes as encouraging.

Quarken Boats, also based in Kokkola, reported a positive year. "We've opened new export markets, and Uiva strengthened our outlook for Finland as well. We closed deals, arranged many sea trials and issued numerous offers," says CEO Antero Sundberg.

The next Helsinki In-Water Boat Show Uiva Flytande will be held on 13–16 August 2026 in Lauttasaari. The Helsinki International Boat Show – Vene 26 Båt – is scheduled for 6–15 February 2026 at Messukeskus, Helsinki Expo and Convention Centre.



Safe pilot access is not optional – it's the law!

CHIRP Maritime has drawn lessons learned from a reported incident where a pilot encountered unsafe boarding arrangements, dismissive attitudes from the vessel's crew, and a lack of care following injury.

Initial report

CHIRP received a report from a pilot concerning a non-compliant boarding arrangement and an apparent lack of care from the vessel's crew. The pilot ladder was suspended from the deckhead and failed to rest flush against the ship's side due to hull belting - a setup that did not meet safe boarding standards.

Although a small shell door was available for safer access, large fenders had been rigged on either side. When the pilot requested that these be removed to facilitate safe boarding, the master refused, citing concerns about damage to the paintwork.

The pilot assessed the situation and stated that boarding would not proceed unless the obstructions were cleared. Eventually, the fenders were removed, and boarding took place via the shell door. The event was filmed from the bridge wing and by crew members, which contributed to the pressure and unease the pilot felt.

During boarding, the duty pilot struck his head, sustaining a minor injury. The crew did not inquire about the pilot's welfare or offer first aid. Instead, he was handed a pair of overshoes to protect the deck from being dirtied.

CHIRP comment as follows

Safety regulations around pilot boarding exist because failure to follow them can and does result in injury or worse.

Here again is a common design problem often reported to CHIRP. There appears to be a lack of integrated thinking when designing superyachts. Crews should not be placed in unsafe situations due to poor design decisions made remotely by those who will not operate the vessels. Collaboration is essential during the design phase for new builds, involving input from all stakeholders, including designers, owners, flag authorities, class societies, crew, contractors, and pilots.

This report reminds us that pilots are contractors and guests, yet they remain vital maritime professionals. The safe transfer of the pilot is not optional; it is compulsory, and their physical safety and well-being must be taken seriously. The revision to ISO 799, which specifies new requirements for ship's pilot ladders, comes into force in 2028.

Currently, owners are accepting vessels from builders that are not compliant, which places a greater burden on flag states and classification societies to ensure that they comply with SOLAS. CHIRP will raise these concerns with the flag states.

Key Issues and lessons learned

Culture: The dismissive attitude toward the pilot's safety - prioritising paintwork over people - reflects a poor on-board safety culture. A culture that does not respect external personnel or reporting lines weakens trust and increases risk.

Communication: The Master's refusal to remove the fenders and the failure to explain or resolve the issue collaboratively suggest a lack of effective communication between the ship and the pilot. Effective communication is crucial for achieving shared situational awareness and making informed, coordinated decisions.

Alerting: The pilot raised a safety concern, which was initially ignored; this constitutes a failure to act on an alert. Ignoring or dismissing raised concerns discourages others from speaking up and undermines the effectiveness of safety systems.

Teamwork: Boarding a vessel is a collaborative effort between the ship and the pilot. Filming the event and failing to help shows a breakdown in cooperative behaviour and mutual respect, key elements of effective teamwork.

Situational Awareness: The lack of recognition that the pilot had been injured, combined with the absence of any first aid or welfare check, indicates poor situational awareness. The crew was not entirely focused on what was happening around them or the seriousness of the event.

Key takeaways

Seafarers:
Every visitor is your responsibility.

Pilots and contractors are part of your extended team. They deserve the same duty of care as your crew. Ensure safe boarding arrangements, treat visitors with respect, and help without hesitation. A clean deck is no excuse for a dirty attitude.

Managers:
Safe access is not optional – it's the law!

Boarding arrangements must meet SOLAS requirements — every time. Pressure to protect paintwork cannot outweigh the safety of personnel. Set clear expectations with your crews: all visitors, especially pilots, must be welcomed safely and professionally.

Regulators:
Standards must protect people, not paint.

Incidents like this show how operational decisions can put reputations — and lives — at risk. Regulators must reinforce the message that the duty of care extends to all personnel boarding a vessel and that non-compliant setups or dismissive behaviour are unacceptable.

Photo credit: BSEE

Rise in slip, trip and fall incidents prompts risk inspection

The Bureau of Safety and Environmental Enforcement (BSEE) has identified a potential risk associated with slips, trips and falls (STFs) across the Outer Continental Shelf (OCS) between May 2024 and April 2025. During this period, 22% of all injuries reported to BSEE were attributed to STFs, surpassing lifting-related injuries for the first time in recent years. These STF injuries were often severe, resulting in major injuries defined as three or more days away from work, restricted work, or job transfer.

In response to the rise in operator and contractor injuries, BSEE initiated a Performance-Based Risk Inspection (PBRI). The inspection covered 19 assets, including production platforms and well operations, across the Gulf. These assets were operated by 17 unique operators.

Incident findings

1 Training – While a few operators and contractors provided limited computer-based training associated with STFs, most of the operators and contractors associated with the inspected facilities had no formal training requirements or program for the prevention of STFs.

2 Hazard Identification / Hunts – Throughout the inspection, offshore personnel indicated they had a regular work schedule to clear paths and ensure walkways were free from obstructions, which they considered part of their daily operations. However, only one Operator provided evidence of a "Start Work Check" that requires employees to clear paths and floorways before lifting, pumping, tubular handling and high-pressure testing operations.

3 Unguarded or Sharp Edges – BSEE inspection teams identified unguarded and sharp edges on multiple inspections. These edges could cause severe injuries like cuts, lacerations, punctures, and even amputations during STF incidents.

4 Mental Focus – Investigation teams reviewed non-reportable incidents from operator logs and found that a common cause in multiple STF incidents was the lack of attention while walking. An example was walking forward and looking upward at the same time.

5 Simultaneous Operations – On facilities where simultaneous operations were underway, such as construction and well-related activities, working surfaces and walkways were inundated with hazards. Inspectors found wet floors with loose, flakey rust; hoses and tubing on the ground in front of an egress route and life vest box; areas with uneven grating; temporary electrical lines without proper tagging; scaffolding and a ladder in the path of an egress route; and metal pipe and tubing on the deck floor that was not anchored down or properly stored. BSEE inspectors identified all these hazards, not contract or operator personnel, during pre-job hazard hunts, toolbox talks, or in job-specific Job Safety Analysis (JSA).

6 Safety Boots – The inspection confirmed most operators and contractors had safety boot policies in place that covered ANSI Z41-1999 and ASTM F2413 recommendations. However, little evidence was provided on boot inspection programs implemented on the OCS to ensure the boots were in safe working order.

7 Marking of Obstructions / Contrast and Visibility – Contrasting colours and surface markings were used where applicable; however, BSEE inspectors identified areas that needed improvement, which the operator corrected. A recent 20-foot fall downstairs and a trip over a deck penetration were also attributed to faded paint on the grating, and a lack of contrasting colours to help identify the hazard.

To help prevent similar incidents in the future, BSEE recommends that operators and their contractors, where appropriate, consider the following:

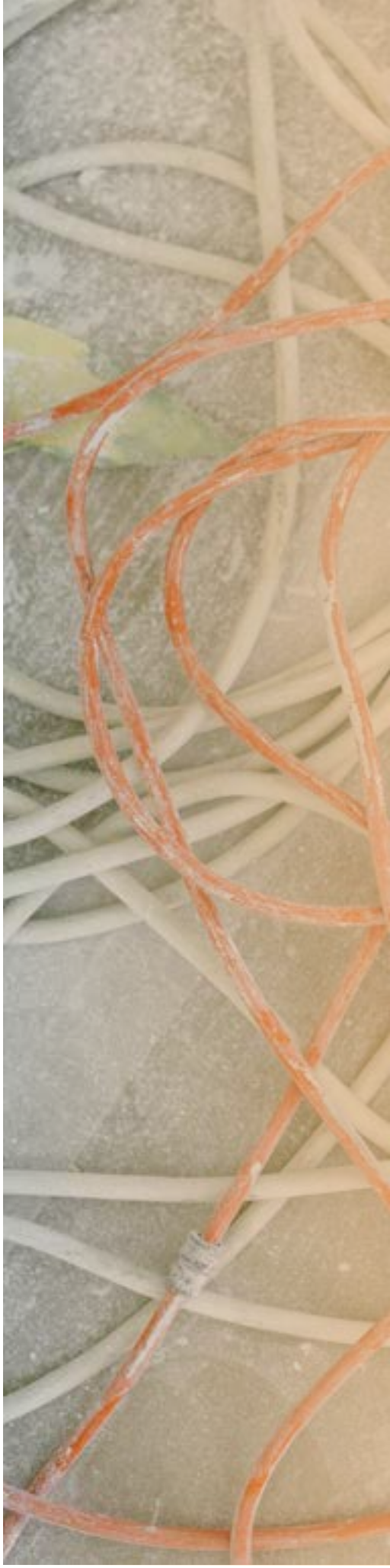
- Emphasize the importance of offshore workers remaining alert, especially in high-risk areas like stairwells, decks, and worksite exits. While on OCS facilities, individuals should take a moment to scan their path for potential hazards. Some operators presented information on their "20-20-20 rule" – Every 20 minutes, take 20 seconds to look 20 feet around you, actively searching for any hazards.

- Ensure that high-traffic areas are kept clear of obstruction and maintained in a safe condition. Consider utilizing IOGP's Start Work Checks to ensure safeguards are implemented to prevent STFs by workers at the job location before work commences.

- Evaluate OSHA's regulations (29 CFR 1910 Subpart D) for walking and working surfaces and consider developing formalized training requirements that address the causes of slips, trips and falls and how to avoid them.
- Require all offshore personnel to wear appropriate foot protection and have programs in place to ensure they inspect and maintain the soles to achieve firm traction. Operators should follow 33 CFR 142.33 and ensure foot protection for personnel is adequate for their duties.

- Review the work activities on all OCS facilities and bring awareness to walkways with a larger equipment presence (generators, pumps, scaffolding, hoses, etc.). Additionally, operators on fixed and floating offshore facilities should review United States Coast Guard Regulations 33 CFR Part 142 – Workplace Safety and Health.

- Complete walk-downs of their platforms and identify all sharp or unguarded edges. If any are identified, mitigation measures should be implemented to reduce the risk of cuts or lacerations during a STF event.



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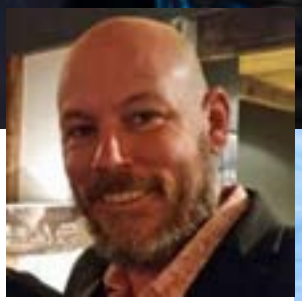
3D printing set to change propeller production



By Hans Buitelaar

Additive Manufacturing, also known as 3D printing, is set to change the production process of boat propellers. Answering to developments in the marine industry like electrification of propulsion and hydrofoiling, this technique allows for specialised propellers to be produced at low cost and reduced use of material that can be optimised to meet the operational demands of any specific boat.

The complexity of propeller design

Creating the exact right propeller for a ship is a complicated process. A lot of variables have to be taken into account to design a propeller that will perform under all of the different situations in which a boat will sail.

Matching propellers to vessel type and conditions

The size of the boat is to be considered, its weight, the desired speed and the expected conditions in which a boat will be used. It is not so hard to understand that the size and shape of propeller blades of a small planing boat that is racing on a lake need to be quite different than the propeller blades for a sailing yacht that uses the engine to get from open sea with big waves safely into a harbour at slow speed.

There are differences in the engines: at which rotation speed will they deliver the best performance? Will the propeller deliver its best propulsion power at that same speed? And then there are so many variations in the propeller itself: the diameter and the number of the blades. Will the blades be overlapping or leave a lot of space in between? How much pitch do the propeller blades have? Or in the case of larger yachts, will the choice be made to install controllable pitch propellers?

In general, one can say that narrow shaped propeller blades with a thick cut-through profile will deliver a lot of pulling force at slower speeds, while wide shaped thin blades a better suited for high speed sailing.

Praise the propeller

Design of well performing ship and yacht propellers has evolved to be a field of science in itself. It the Maritime Research Centre MARIN in the Netherlands, the scientists have made a collection of the types and designs of propellers that they have done tests with.

Even though these are scale models, the rows of screws hanging on the wall span the whole length of the building along the 224 metre test basin multiple times. There are thousands of designs. The number of designs is ever increasing.

All this optimising of the shapes of these underwater screws aims to get the best possible performance out of the engine power that the boat delivers. Overall, the ship propeller is a very good concept. Boat propellers can be praised as the most efficient mechanical device to transfer engine power into thrust in the water.

Strong alloys for marine propellers

Under water, propellers are exposed to powers causing wear and tear: the torque from the shaft that comes from the engine, the resistance of the water and the turbulence of the water surrounding the blades.

As the boat needs to sail at speed, the blade tips rotate at quite high speed through the water and cause vacuum bells. This phenomenon is called cavitation. Cavitation causes deterioration of screws and corrosion. The design of propellers needs to consider this.

To withstand all these forces, the materials of boat propellers need to be tough. The propellers for small electric trolling motors on dinghies and fishing boats can be made in composites, but bigger and faster boats require tougher materials.

Most propeller manufacturers use alloys. For lighter outboard engines, aluminium can be sufficient. A lot of larger and fast sailing boats use stainless steel props. For its good capabilities being repellent to marine fouling, withstanding large forces and enduring the saline environment in sea water, bronze is the more traditional material favoured by mariners for use in screws. Larger boats may use refined metal alloys combining like Bronze-Aluminium-Nickel or Copper-Nickel.

Shaped in sand, traditional propeller casting

The complicated shapes of boat propellers are usually created by pouring molten metal into a mould. Traditionally, the moulds would be made in sand. This allows for flexible shaping.

After curing, the resulting boat screw needs a lot of treatment to refine the shape of the blades and smoothen the surface. Automation in production processes led to surface treatment using robot arms that could smoothen the surface using laser beams or mechanical milling.

Melting metal, the first 3D printed prop

In 2017, Dutch maritime start-up RAMLAB produced the first ship propeller made with 3D printing to receive approval by maritime certification institute Bureau Veritas. This marked a breakthrough in both additive manufacturing as in propeller production.

Because 3D printing is a process of adding a new layer of material over the previous, the kind of materials that can be produced is limited. After the first applications with soft plastics with a low melting temperature, the process of additive manufacturing has evolved towards processing metal alloys with the use of a special nozzle that can heat the metal alloy to the temperatures need to achieve a good bonding with the former layer to create a structure strong enough for a certified seagoing vessel's prop.

Shaping wire

The procedure used by RAMLAB is called Wire Arc Additive Manufacturing. A robot arm is fed with a wire of a Nickel-Aluminium-Bronze alloy. The robot arm moves around the structure it is creating, pouring the molten alloy from the wire layer over layer.

A specially developed heating nozzle deposits the layers of molten metal in the correct spots, controlled by a computer programme to secure that the correct shape of the propeller will be constructed.

Metal powder printing

Today, Chinese company Metal3DP Technology (with offices in Korea and Singapore) is producing boat propellers with a different technique: 3D printing using metal powder. They call it MAM: metal additive manufacturing.

This company offers a lot of different powders to create 3D printed structures in a lot of different alloys, ranging from the softer metals like aluminium to extremely low weight, high strength materials like titanium.

Additive manufacturing gives naval architects design freedom. It liberates propeller design from the constraints of traditional casting moulds and machining access.

Optimized propellers can be tailored to specific vessel requirements. Creating optimised propellers brings a lot of benefits: improved fuel efficiency, reduced cavitation and noise and the potential for lighter, integrated propulsion components.

Accelerating innovation in marine propulsion

Recent developments call for optimised screw designs. Electric motors deliver other power characteristics than internal combustion engines.

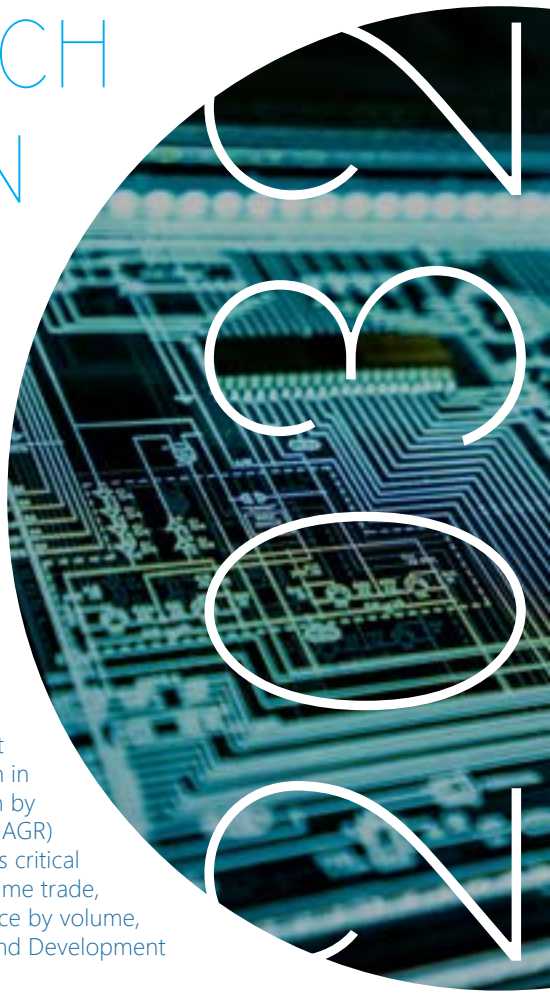
Foiling boats need the power to speed up quickly to get up on their foils, but once on their foils maintain their speed at a lot less drag.

The potential of quickly producing propellers and being able to easily make subtle changes in design, will allow for further innovation in ship propulsion.

This article first appeared on the Metstrade website and is republished here with our thanks.

MARITIME SECURITY MARKET IS SET TO REACH $45 BILLION BY 2032

By Swapnil Chavan



The global Maritime Security Market is set for robust growth, valued at US$ 23.5 billion in 2025 and projected to reach US$ 45.5 billion by 2032, with a compound annual growth rate (CAGR) of 9.9% during the forecast period. This market is critical to ensuring the safety and security of global maritime trade, which accounts for over 80% of international commerce by volume, according to the United Nations Conference on Trade and Development (UNCTAD).

The Maritime Security Market is facing rising threats of piracy, terrorism, smuggling, and cyber-attacks, coupled with increasing global trade and regulatory mandates for maritime safety, which are driving demand for advanced security solutions. The industry is characterized by technological advancements in surveillance systems, cybersecurity measures, and integrated security platforms, with key players investing heavily in innovation to address evolving threats and comply with international regulations such as the International Ship and Port Facility Security (ISPS) Code.

MARKET DYNAMICS

DRIVERS

Rising Maritime Threats: The increasing prevalence of piracy, terrorism, and illegal trafficking is a primary driver of the maritime security market. According to the International Maritime Bureau (IMB), 115 piracy and armed robbery incidents were reported globally in 2023, with Southeast Asia and the Gulf of Guinea being high-risk areas. These threats necessitate advanced security solutions, including surveillance systems, drones, and counter-piracy technologies, to protect vessels and ports. For instance, the Nigerian Navy has expanded its maritime patrols and deployed armed escort services to secure the Gulf of Guinea. Similarly, Singapore invested in AI-based port surveillance to strengthen maritime threat detection.

Growth in Global Maritime Trade: The expansion of global trade, particularly through maritime routes, drives demand for robust security measures. UNCTAD reports that global maritime trade volumes grew, with containerized trade expected to increase annually through 2030. This growth amplifies the need for enhanced port security, vessel protection, and surveillance systems to mitigate risks associated with high-traffic maritime routes, particularly in strategic chokepoints such as the Strait of Malacca and the Suez Canal. For instance, Malaysia and Indonesia have increased joint naval patrols in the Strait of Malacca, while Egypt has deployed advanced radar and monitoring systems to secure the Suez Canal.

Regulatory Mandates and Technological Advancements: Stringent international regulations, such as the ISPS Code, mandate enhanced security measures for ports and vessels. Additionally, advancements in technologies such as artificial intelligence (AI), unmanned aerial vehicles (UAVs), and satellite-based surveillance are transforming maritime security. For instance, AI-powered analytics can detect suspicious activities in real-time with up to 90% accuracy, according to industry studies, driving the adoption of integrated security platforms by governments and port authorities.

Restraints

High Implementation Costs: The development and deployment of advanced maritime security systems, such as radar systems, drones, and cybersecurity platforms, involve significant costs, often exceeding those for large-scale projects. These high costs can deter smaller ports and shipping companies, particularly in developing regions, from adopting cutting-edge solutions, limiting market growth in cost-sensitive markets.

Complex Regulatory Compliance: The maritime security market faces challenges due to varying international and regional regulations. Compliance with standards such as the ISPS Code and regional frameworks requires significant investment in infrastructure and training, which can be a barrier for smaller operators. Additionally, interoperability issues between different security systems can hinder seamless implementation, slowing market expansion.

Opportunities

Advancements in Cybersecurity Solutions: The rising threat of cyber-attacks on maritime infrastructure, such as port management systems and vessel navigation, presents significant opportunities. The maritime industry reported a 400% increase in cyber incidents from 2019 to 2023, according to the International Maritime Organization (IMO). This has spurred demand for cybersecurity solutions, including AI-driven threat detection and blockchain-based secure communication systems, fostering innovation and market growth.

Expansion in Emerging Markets: The growing maritime trade in emerging economies, particularly in the Asia Pacific and Africa, offers substantial opportunities. For instance, India's Sagarmala Project aims to modernize 12 major ports, with investments exceeding, driving demand for advanced security systems. Similarly, Africa's increasing role in global trade is boosting investments in coastal and port security, creating a lucrative market for security providers.

MARKET INSIGHTS

By Type

Products, including radar, sonar, and advanced surveillance systems for port security, due to their widespread deployed in ports and on vessels.

Services, including maintenance, training, and consulting, are the fastest-growing segment, driven by the need for ongoing support and system upgrades for maritime defence.

By Security Type

Maritime surveillance holds the largest market share at 35.6% in 2024, driven by the widespread adoption of radar, satellite, and drone-based systems for real-time threat detection.

Automatic Identification System (AIS) is used by 80% of major shipping nations for real-time vessel tracking. Maritime cybersecurity is the fastest-growing segment, fuelled by rising cyber threats to maritime infrastructure

By End-User

Government agencies hold the largest share at 45% in 2025, due to their role in securing coastlines and enforcing maritime security regulations. The U.S. Navy and Coast Guard alone invested in naval security systems in 2024.

Port authorities are the fastest-growing end-user segment, driven by increasing port modernization and port security upgrades in response to rising global trade security demands.

REGIONAL INSIGHTS

North America Maritime Security Market Trends

North America holds a dominant 35% share of the global maritime security market in 2025,

United States. The U.S. dominates due to strong defence funding, advanced surveillance infrastructure, and AI-powered maritime drones. In 2023, 10,000 tons of illicit cargo were intercepted along vulnerable coastlines.

Canada. Canada enhances Arctic and Atlantic security through satellite surveillance, RADARSAT systems, and NATO collaborations. Investments focus on radar upgrades and joint defence efforts under NORAD to monitor maritime threats.

Mexico. Mexico prioritizes port and coastal security in Veracruz and Manzanillo. It combats smuggling via naval patrols, automated vessel monitoring systems, and enhanced inspections at key Pacific and Gulf ports.

Europe Maritime Security Market Trends

United Kingdom. The UK leads the European market, driven by its strategic maritime position and investments in port security and cybersecurity. The adoption of AI-based surveillance and unmanned systems is increasing, supported by government initiatives to enhance maritime safety.

Germany. Germany's robust shipping industry and focus on green port initiatives drive demand for advanced security solutions, particularly in maritime surveillance and vessel protection.

France. France's naval modernization and focus on securing Mediterranean trade routes are boosting investments in integrated security systems, including drones and radar technologies.

Asia Pacific Maritime Security Market Trends

Asia Pacific holds a 28% share of the global maritime security market in 2025.

China. China dominates the Asia Pacific market with a significant share in 2024, driven by its massive maritime trade (over 4 billion tons annually) and investments in the Belt and Road Initiative. The adoption of advanced surveillance and cybersecurity systems is rising to protect strategic maritime routes.

India. India's growing maritime trade and the Sagarmala Project drive demand for port and coastal security solutions, with investments in radar and drone-based systems increasing.

Japan & Other APAC Countries Japan's advanced maritime R&D and focus on securing trade routes, along with rising investments in Southeast Asia, support growth in maritime surveillance and vessel protection systems.

COMPETITIVE LANDSCAPE

The maritime security market is highly competitive, driven by technological innovation, strategic defence contracts, and regional risk mitigation. General Dynamics leads in the U.S. with autonomous surveillance drones and AI-driven threat detection, enhancing coastal defence. Thales Group plays a key role in Europe, providing integrated naval command and radar systems across NATO fleets. Elbit Systems supports Asia Pacific and the Middle East with drone surveillance and maritime C4ISR technologies. Leonardo S.p.A. focuses on real-time maritime monitoring systems tailored for the Mediterranean and African regions. These firms leverage advanced tech, cross-border collaborations, and government partnerships to strengthen global maritime safety.

KEY DEVELOPMENTS

2024:
Kongsberg Group launched an AI-powered maritime surveillance system, improving threat detection accuracy by 15%.

2023:
Raytheon Technologies introduced a cybersecurity platform for port management systems, reducing cyber risks by 20%.

2023:
Thales Group partnered with a leading port authority to deploy drone-based coastal surveillance systems, enhancing monitoring efficiency.

ABOUT THE AUTHOR

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He brings deep expertise across multiple domains, including chemicals, energy, automotive, industrial automation, and sustainable materials. His commitment to delivering precise and reliable market intelligence ensures that clients receive comprehensive studies to navigate evolving market conditions. The actionable insights derived from his research empower businesses to make informed strategic decisions.

This article was first published on the Persistence Market Research website and is printed here with our thanks.

Website: **https://www.persistencemarketresearch.com/**

Maritime industry must act if it is to achieve a sustainable blue economy

By Matthieu de Tugny

Bureau Veritas Marine & Offshore's Executive Vice President, Matthieu de Tugny, addresses what is required of class societies if the maritime industry is to achieve a sustainable blue economy.

The maritime industry is currently experiencing a sustained period of growth, with shipping and port industries representing 40% of the ocean economy's total worth, which today stands at $2.2 trillion. This growth is reflected in the current global orderbook, which – according to the Clarksons newbuilding price index – has seen a 45% increase in newbuild orders since 2021. However, this economic strength is tempered by mounting challenges that cannot be ignored.

Geopolitical instability continues to disrupt maritime operations on a day-to-day basis, whilst elevating the safety risks for seafarers operating within the affected regions. Simultaneously, an unpredictable policy environment is reshaping global trade routes, while shipowners and operators face significant regulatory demands in an effort to cut carbon emissions, pressures that are only expected to increase over the coming years.

Following the outcomes of MEPC 83, the maritime industry awaits the likely introduction of the IMO's Net Zero Framework (NZF) in October. If enacted, these measures will establish mandatory marine fuel standards and GHG emissions pricing for shipping. The NZF will join a complex regulatory environment such as FuelEU Maritime and the EU Emissions Trading

System (EU ETS), creating escalating compliance costs for shipowners. Recent reports highlight the scale of this requirement, stating that the EU ETS alone will cost the industry approximately $6 billion in 2025, rising to an estimated $51 billion by 2030. Furthermore, it is clear that shipowners are struggling to manage the evolving complexity of the newly introduced regulations. According to recent reports, less than 40% of shipping companies met the deadline for their first year of verified emissions reporting under EU ETS.

In response to this dynamic yet uncertain environment, it is understandable that owners may be choosing a "wait-and-see" approach when it comes to engaging with emerging clean technologies. Although first movers may gain a reputational advantage that may attract end customers that are committed to specifying zero-carbon fuel in their tender requirements, for the majority of vessels, the safest financial option is to wait for greater certainty within the current landscape.

If the maritime industry is to meet the IMO's net-zero GHG target by 2050, systemic transformation is required in terms of how we finance, fuel and operate the global fleet.

However, if the maritime industry is to meet the IMO's net-zero GHG target by 2050 – not to mention the 20% GHG emissions reduction checkpoints in 2030 – systemic transformation is required in terms of how we finance, fuel and operate the global fleet. Financial institutions that underpin the shipping industry must embrace green financing models that link capital with climate performance. Furthermore, if the current alternative fuels deadlock is to be overcome, the industry must focus on continuing to establish more green corridors as a viable means of synchronizing the development of ships, ports, fuels, and regulatory policies to support zero-emission trade.

As a leading classification society, Bureau Veritas Marine & Offshore (BV) has been working in a risk capacity alongside industry partners, including Fortescue, K Line, and the Australian Renewable Energy Agency, to support the development of the Australia–Japan iron ore corridor. This route is centered around the development of green ammonia, with fuel production in Pilbara, bunkering facilities in Port Hedland, and end-use in Kobe.

This fundamental change also involves the need to address the historic inefficiencies that the industry has operated under for centuries. Practices such as "sail fast, then wait" (SFTW), which denotes the practice of vessels speeding to their destination and then idling at anchor whilst they wait for an available berth at port. However, new initiatives such as the Blue Visby Solution seek to address this ineffective practice. Developed by the Blue Visby Consortium, this multilateral platform utilizes a unique algorithm to provide participating vessels with optimized arrival times that allow them to slow steam. This can reduce shipping emissions by approximately 15% and, based on 2019 figures, has the potential to remove approximately 45 million tonnes of CO2 across the tanker and bulker fleets.

The role of classification societies is central to the success of the industry's transition. However, whilst maintaining the traditional role of class as custodians of change within the industry, BV is increasingly acting as an enabler of enhanced collaboration throughout the maritime value chain. By utilizing its extensive industry expertise, BV represents a trusted and impartial advisor that facilitates the integration of energy-saving devices and operational measures to cut fuel consumption, whilst providing modelling scenarios and detailed data insight to support evolving financing schemes that will accelerate the development of advanced zero-carbon fuelled vessels.

The industry has certainly made crucial progress in its pursuit of Net Zero, but this momentum must be sustained. This can only be achieved through pragmatic, decisive action that works in tandem with global supply chain partners.

Only through this consolidated effort will we unlock the potential of a truly sustainable blue economy.

Legacy and Innovation

By Chad Fuhrmann

L&I

Industry leaders are merging old school tradition and principles with modern innovation, developing designs that meet sometimes diverging industry demands.

The roots of naval architecture are steeped in tradition with knowledge passed down through generations. Scientific ship design in the 18th century introduced mathematical models used to inform hull design while the Industrial Revolution brought iron and steam, revolutionizing design, materials science and propulsion.

The 21st century ushered in the digital transformation alongside essential new tools in the naval architect's arsenal. Advanced CAD technology, Artificial Intelligence (AI) and data-driven modelling are now used to optimize designs. From concept through a ship's lifecycle, digital twins enable predictive maintenance and monitoring to model fuel consumption across voyage profiles.

These new tools bridge the gap between design and day-to-day operations in a way never before possible. Naval architecture has evolved from a craft to a robust engineering discipline but remains rooted in the principles of the earliest shipwrights. Successful naval architects today are those who can balance cutting-edge innovation with time-tested fundamentals and work alongside data scientists and software engineers, blending classical engineering judgment with innovative insight.

The ability to intuitively understand how a vessel will behave underway and under duress is as critical as proficiency with modern tools and software.

That ethos defines the modern age of naval architecture. AI and Big Data are no longer optional, they're integral. Lifecycle sustainability is not just something to consider, it's a core design driver. "We continue to work with clients, old and new, to apply traditional best practices to a modern fleet," says John Gilbert, President of Gilbert Associates Inc., a stalwart of naval architecture for over 60 years.

FUTURE-PROOFING VESSEL DESIGNS

As design itself may be more efficient by virtue of the available tools, a wide variety of challenges persist even as new ones develop. Naval architects are no longer viewed simply as technical designers but as long-term partners involved from the concept stage and continuing throughout a vessel's functional life.

Often, long-term strategies require designers to develop a "crystal ball" approach, assisting vessel owners in anticipating issues before they even arise. Predicting future regulations, fuel transitions or new technology that have not yet materialized (or whose viability is unknown) is now par for the course.

"Future-proofing ship designs is easy to say, but far more difficult to execute," says Morgan Fanberg, CEO of Glosten.

Most domestic vessels have operational life expectancies of 30 years or more, and Glosten's designers have to weigh the consequences of each vessel detail while allowing for the inevitable changes in everything from materials to regulation. A balanced approach requires considering the most advanced equipment available from OEMs while building in allowances for future upgrades.

While both may help delay obsolescence, they also carry risks. Emerging technologies lack a proven track record while integration challenges and costs can increase rapidly. And, of course, predictions may simply be wrong. "Ultimately, future-proofing requires a careful balance between foresight, flexibility and cost – designing vessels that meet today's requirements while giving them room to evolve," Fanberg says.

REGULATORY CHALLENGES

Perhaps the greatest challenge in vessel design has always been regulation. Regulators are notoriously slow to react to changes and often uninformed, particularly with today's rapid pace of innovation. As a result, predicting and planning for changes in regulations is often a guessing game at best, requiring even greater collaboration.

This isn't exclusive to future regulations but also relevant to existing rules sometimes forcibly applied to modern technology.

Gilbert Associates has spent considerable time refining its approach to hybrid passenger vessels, culminating most recently in the Capt. Almer Dinsmore, New England's first hybrid diesel-electric ferry. The project required intensive coordination with regulators and equipment vendors to integrate lithium-ion batteries, advanced fire suppression and new electrical systems – all under restrictive Subchapter K tonnage rules.

Across the naval architecture sector, the concept of future-proofing carries with it a natural element of revolution, pushing the boundaries of the regulatory process. As designers implement the latest technology, they challenge both the vendor/system integrator and established rules set by maritime authorities.

The naval architects at Norway's Breeze Ship Design frequently challenge established rules. When the world's first LNG-powered offshore support vessels were designed, there were minimal class or flag state rules that could be applied. Instead, Breeze followed IMO's alternative design process to develop a level of safety that challenged even existing vessels.

In close collaboration with stakeholders (including other designers), the company designed solutions and, in the process, new standards. But rather than hide or protect their innovations from competitors, Breeze shared them across partnerships, believing that, according to CEO Ove Wilhelmsen, "sharing our innovations with other stakeholders drives the whole market to a higher level of safety and efficiency, which will benefit us all."

Designers are caught in a difficult position, trying to make bold advances while remaining practical. Elliott Bay Design Group sees the primary challenge as delivering solutions that draw from the technologies their clients truly need.

"We don't just follow trends," notes Robert Ekse, President. "Instead, we translate them into practical solutions that work in the real world – balancing innovation with practicality to ensure long-term success. Ultimately, it's about partnership, purpose and building what's next together."

LIFE EXTENSIONS

Naval architects don't concern themselves solely with new designs, of course. "A large portion of our activity relates to ships in operation," notes Breeze's Wilhelmsen.

Indeed, with more than 4,000 vessels designed over the decades, the company has a team dedicated to vessel conversions and upgrades, including the Viking Energy. Built in 2003 as the world's first LNG-powered offshore support vessel, Equinor, Eidesvik and Breeze teamed up for the Apollo project to convert the vessel from LNG to ammonia.

Designers work closely with clients, regulators and shipyards to develop and execute practical modernization plans. These refits blend already existing strengths with updated systems while lowering operating costs and extending useful life, demonstrating that progress doesn't always require new steel.

Life extensions are critical for reducing environmental impact and increasing the value of aging assets. Projects that modernize older vessels by integrating centralized management systems enable crews to focus on preventive (versus reactionary) maintenance.

According to Glosten's Fanberg, "These kinds of upgrades are essential in a world where skilled mariners are in short supply. The goal isn't automation for its own sake, but for improving the day-to-day experience of operators and crews."

INTEGRATING LEGACY AND INNOVATION

Naval architects are no longer just designers. They're systems integrators, digital strategists and environmental stewards.

The coming decades will see tighter integration between designer and operator, leveraging innovation to vet thousands of design variants before a single steel plate is cut. Regulations will evolve in parallel, pushing innovation in zero-emissions vessels and autonomy.

Forward-thinking companies will continue to demonstrate how deep-rooted tradition, when combined with thoughtful innovation and an appetite for disruption, can shape a future that's as environmentally conscious as it is commercially viable. From their perspective, the future is not as challenging as it is rife with opportunities.

Per Elliott Bay's Ekse, "We are pushed to be more proactive in engaging with stakeholders and more precise in integrating technology that is not only innovative but also practical and aligned with operational realities."

Does the maritime industry value the critical work of salvors?

By James Herbert, Secretary General of the International Salvage Union

The marine salvage industry is a vital part of the shipping industry ecosystem, and the International Salvage Union (ISU) is the association that represents the world's salvage contractors. The core purpose of the ISU is to be the "credible, trusted and unified global voice of its members who facilitate world trade by providing marine services which save life, protect the environment, mitigate risk and reduce loss." And that statement truly does capture the essence of our association.

The marine salvage industry is a vital part of the shipping industry ecosystem, and the International Salvage Union (ISU) is the association that represents the world's salvage contractors. The core purpose of the ISU is to be the "credible, trusted and unified global voice of its members who facilitate world trade by providing marine services which save life, protect the environment, mitigate risk and reduce loss." And that statement truly does capture the essence of our association.

As such, we have a firsthand view of the state of the industry, based on our data. The news is that the salvage industry remains under financial pressure as the ISU's annual salvage industry statistics indicate – at a time when the impact of casualties is getting larger, particularly with container ships, and also because of the greatly increased amount of bunkers carried by the largest ships.

The ISU statistics show gross revenues from all sources in 2024 (latest figures) at USD $406 million, which indicates a continuation of the recovery that started in 2023 compared with the historically low levels seen in 2022. Income is still substantially down on the typical levels of a decade ago, however.

We are encouraged that shipowners and the marine insurance community openly recognize the importance of our industry and the need for it to be financially sustainable.

ISU believes that the cornerstone of the funding of the industry should be income from awards based on Article 13 of the Salvage Convention. In short, it means a reward for the mostly commercial salvors who go to the aid of casualties at their own financial risk in the

expectation that, if they succeed in saving property, they should receive an award based on the values salved and other factors like the danger of the situation.

Traditionally the key contract for such services was the Lloyd's Open Form (LOF), but its use has decreased significantly in recent years. ISU continues to promote use of LOF - and the new edition published last year. We are realistic about the number of times the contract will be used each year, but we hope for an upturn, and so we shall follow developments with the new LOF closely.

Wreck removal is an important part of most salvors' work and generally produces about 50% of the industry's annual income. Much of this work (and indeed other marine services) is conducted using the BIMCO suite of wreck removal contracts - Wreckstage (lump sum payable in stages), Wreckhire (daily hire payments), and Wreckfixed (lump sum payment on a no-cure, no-pay basis). Work is ongoing to revise the contracts: a new edition of Wreckstage was published in 2024 and ISU along with other stakeholders are now working on revisions to Wreckhire and we look forward to continuing that work and then turning our attention to the Wreckfixed contract.

Turning to operational matters, last year saw ISU members respond effectively to the Baltimore bridge disaster - removing the collapsed bridge debris in difficult conditions and refloating the containership DALI. It was a case which demonstrated in practice the ISU's key messages about the value of professional salvors in reducing loss, saving property, and keeping ports open.

Fires on containerships and battery fires in car carries and on RoRos are a continuing and significant concern. ISU members are often the only agency available to deal with such incidents and have a proud track record in this specialized field. Dealing with casualties that are powered by new types of fuel - LNG, hydrogen and ammonia - will be an increasing focus for the industry.

As well as saving life and property, salvors continue to prevent major incidents of marine pollution. In 2024 ISU members provided services to vessels carrying more than 2.4 million tonnes of potential pollutants. It shows the great environmental benefit of the salvage industry as well as the benefit of protecting shipowners' reputations and supporting their Environmental, Social and Governance (ESG) requirements, which are now central to business operations.

It is never difficult to make the case for the professional salvors who are the members of the ISU, and we are sure that the wider industry and our key stakeholders will continue to support us in our vital work.

ABOUT WRECKSTAGE

WRECKSTAGE 2024 is a standard wreck removal and services agreement based on payment of a lumpsum in stages.

The revised agreement introduces a Risk Allocation Procedure which allows parties to utilise Quantitative Risk Assessment or other bespoke risk allocation during the contracting process and incorporate it into the agreement. WRECKSTAGE was first published in 1993 and revised in 1999, 2010 and 2024.

BIMCO's three wreck removal agreements, WRECKSTAGE, WRECKHIRE and WRECKFIXED, were first introduced to the industry in 1999. In 2010, the agreements were revised to take into account of developments in commercial practice and ensure a more equal balance between the parties.

Significant casualties and wreck removals have occurred since the 2010 forms were released, with developments in technology and sophistication in the wreck removal contracting between the parties, as well as the widespread adoption of the Nairobi Convention.

The introduction of Quantitative Risk Assessment (QRA) into the contracting process for maritime wreck removal operations and discussions between the ISU (International Salvage Union) and the IG (International Group of P&I Clubs) on revising the code of practice for wreck removal tendering, prompted a revision of WRECKSTAGE. This led to a decision to revise all three wreck removal agreements. QRA is used to assess risk in the negotiation, planning and execution of an engineering project to inform and guide decisions on the allocation of risk between the contracting parties and the consequent pricing ramifications if such risks materialise.

WRECKSTAGE is the result of a collaborative and consensual process between representatives of the International Salvage Union (ISU), salvors, the International Group of P&I Clubs and individual P&I Clubs, and legal experts.

Certification and effective assessment

By Maria Chachali,
Bureau Veritas Hellas I&F General Manager

In recent times, the TIC (Testing, Inspection, and Certification) sector has been in the spotlight multiple times, as it has been associated with various unpleasant events, creating an impression among the public that certification adds no credibility. Unfortunately, this conclusion is partially true.

Certification is the successful result of a rigorous assessment. Assessments, when performed consistently and with strict criteria, are a tool for progress, improvement, and trust. In the certification context, they should function as a mechanism that ensures quality, safety, and responsibility. In practice, however, we have observed a dangerous deterioration in recent years.

Examples are constantly increasing where certificates are issued without a prior meaningful assessment. Instead of the evaluation process being demanding and in-depth, it often ends up as a typical procedure without content. Thus, certification is transformed from a quality assurance tool into a commercial product, prioritizing quick profit over real value.

It is evident that this development is not solely the responsibility of certification bodies. The clients themselves, meaning the organizations choosing "empty" certificates are equally culpable. Many companies prefer to pay for the "paper" without going through the process of a real assessment. Instead of seeing certification as an investment that will help them correct weaknesses and enhance their competitiveness, they treat it as a typical requirement that must be met at the lowest possible cost.

This creates a vicious cycle: certification bodies offer superficial services because that's what the market demands, and the market continues to seek "easy solutions" because that's what is offered. The result is the devaluation of the entire institution. A certificate that is not accompanied by a meaningful assessment has no value, neither for the organization that possesses it nor for the client who trusts it.

The solution is not easy, but it is necessary. There needs to be a change in mindset coming from both the certification bodies and the clients. The former must restore their credibility by insisting on strict procedures, even if this leads to loss of clients, as it inevitably increases the process cost. The latter must understand that real assessment is an investment that comes at a cost. Only then will certification regain its prestige and become a tool that enhances quality and protects the consumer.

Because ultimately, when the certification sector is devalued, the entire market is devalued. And this devaluation is the result of a conscious choice by both clients and certification bodies.

A Rapido 40 in full flight

Design, engineering and construction of smaller vessels for safety, performance and the e propulsion future

By Triac Composites Limited, Vietnam

Dear members and fellow marine professionals,

I have recently had the pleasure of meeting Mr Phil Johns, General Manager at Triac Composites Ltd, Vietnam. Phil kindly took me on a tour of their most impressive composites factory, where they fabricate some amazing components as well as trimarans, racing and leisure yachts. I have asked Phil to provide this article for our general readership, as I, as a big ship surveyor, found the insight into another part of the marine industry and the technology quite fascinating.

***Peter Broad**, CEng, FIIMS, FIMarEST,*
Immediate Past President of IIMS

Design, engineering and construction technology utilizing advanced composites are transforming the marine industry by combining exceptional strength, corrosion and fatigue resistance and design flexibility with lightweight efficiency. Essentials for performance and the e propulsion future.

Triac Composites is an internationally owned Vietnam based manufacturer that utilizes advanced composite solutions across the marine, defence and industrial sectors. Outsourced works cover a range including plugs and molds, commercial and private boats, foils, UAVs, components for commercial vessels, including tug boat consoles. Triac also builds the high tech all carbon ocean cruising Rapido trimarans range (Rapido Trimarans is the parent company) and Rapido's new light weight ECO power cats for private and commercial use. All components for Rapido's are made in house including pre-preg spreader less wing masts, booms, foils, dagger boards, rudders, even the carbon railings and carbon countertops.

Today's leading performance-cruising boats leverage trickle-down technology from the yacht racing circuit including the America's Cup to become sophisticated platforms that the average sailor can enjoy. Triac has been able to leverage that knowledge and that gained in building Rapido's to enable it to compete in high-tech manufacturing utilizing composites.

For surveyors knowing about the design, technology, construction and testing that goes into such boats is increasingly important.

The design process by Morrelli & Melvin's leading multihull design engineering team for each model Rapido trimaran is broken down into three main phases:

A Rapido 53XS in race mode with both C foils and twin T foil rudders

Aegean 600 2025 HORC © Alen Photography / Nikos Alevromytis

1. Concept Development

- Begins with the design brief: for all Rapido models it is to create a high-performance yet livable multihull that is lightweight, strong (carbon construction), easy to sail (including shorthanded), stable, seakindliness and safe for offshore (CE Category A). Safety and compliance with stringent offshore standards are prioritized.
- Detailed layout sketches, 3D models, preliminary structural analyses to determine key specifications (weight, length, beam ratios, rigging loads, center of gravity). Max load estimates are critical and need to be distributed throughout the platform efficiently.

A folded Rapido 50

2. Structure & Performance Analysis… this phase concentrates on four main areas with cutting edge technology to make it 'real'.

- Finite Element Analysis (FEA) to determine the structural aspects. Hull strength and max load are dialed in …sailing in anger i.e. what will break, minimizing over-building (and thus weight) by adding more structure where needed by following the load paths.
- Computational Fluid Dynamics (CFD) … flow analysis, geometries and hull shapes and appendages are optimized for drag reduction, stability, wake behaviour and loading effects.
- Fluid-Structure Interaction (FSI) combines FEA and CFD to analyze how structures deform under load (e.g., foils, rudders) and to refine laminate schedules, different stiffness materials, vary fiber orientations and how they are acting under load to optimize behavior to ensure safe predictable performance.
- Velocity Prediction Program (VPP) this is all about performance analysis and predictions. Polars are created predicting boat speed across a range of true wind speeds and angles. Integrating inputs from sailmakers and CFD/FSI. (Simulation software developed for the America's Cup is utilized).

3. Design Validation

- Boat construction is well underway. Critical components are tested with jigs to validate the accuracy of the loads and stresses used in FEA. The R60 has a unique design with beams that they are plugged into the main hull. The almost finished Rapido 60 was strapped down to the floor and tested with two cranes diagonally opposite basically twisting the boat with up to 10 tons of force to validate earlier calculations. This test, which could break the boat, is usually only carried out on multimillion dollar race boats. It is a huge investment risk but testing in the yard is far preferable to failure at sea!

You Tubers, Sailing La Vagabonde, with their Rapido 60

The Rapido 60 and new R53XS have fixed beams while the R50 and R40 have a folding system, which is an integral part of the structure with titanium arms. The folding system reduces the beam to that of a similar length monohull so fees for marina wet berths and hard stands and shipping are reduced.

A Rapido 40's beam and strut, made of prepreg and autoclave-cured together with titanium pins. The beams and struts let the floats (amas) fold for marinas and shipping and add structural strength when deployed.

Safety

Probably every brand mentions that their craft are 'safe' but as surveyors know most pleasure craft regulations in this regard fall short of commercial standards. There appears to be no central data collection of the many survey reports generated globally regarding accidents that boat builders could readily access and take the lessons learnt to improve their boats. This feedback loop between builders, designers and surveyors would strengthen the industry's collective understanding and lead to safer craft.

Safety and compliance with stringent offshore standards are prioritized in the design and construction of Rapido's resulting in:

- Watertight bulkheads and bulkheads with no through fittings below the waterline throughout all three hulls.
- Engine compartment sealed between two watertight bulkheads.
- Crash zones in each bow to absorb impact energy.
- Two escape hatches.
- Carbon foam-sandwich and prepreg construction for stiffness, toughness, and fatigue resistance.
- Pre-preg carbon spreader-less wing mast with synthetic rigging, more robust, less maintenance.
    - Case study: owner had disconnected bilge pumps and alarms while doing maintenance and the shaft seal leaked and the engine compartment was flooded to the hull water line. Next day the compartment was pumped out and the engine worked. Only damage was an electrical switch which since has been relocated. The watertight bulkheads saved thousands in damage.

Foiling, Electrification and Efficiency

As the marine world transitions toward electric propulsion, designs that involve weight saving, efficient hulls, performance rigs and sails are essential. Battery technology is developing rapidly but heavier the boat the more batteries and weight and cost. Every kilogram saved means greater range and endurance.

Two Rapido 40s are 100% electric and the third is currently under construction. Charging is from solar (about 2000W) and hydro regen and the third will add wind generation. In addition, R60 Saling La Vagabonde has dual electric and diesel engines. Hydro regeneration is generally low under ten knots so performance sailing becomes critical. Rapido's cruise very comfortably in the 14-18 knot range and easily do over 23 knots. Triac's experience in lightweight hulls and structural optimisation gives it an advantage in this evolving market.

Foiling: The Next Efficiency Frontier

Fully foiling vessels drastically improve efficiency by lifting hulls clear of the water, reducing wetted surface area and drag. For power only electric craft, this translates into gains of 30–50 per cent in range and speed. Hydro foils while not lifting the hulls clear of water still lifts them to a degree that reduces wetted surface and drag with pronounced increases in range and speed.

Fully foiling cruising sailing craft for the average sailor may still be in the future but both the Rapido 40 and Rapido 53XS have twin C foils, one in each float. These give additional lift reducing drag, improving performance and work in tandem with the rudder blade T foil that reduces pitching, both adding to overall control.

Precision Manufacturing

Triac's manufacturing processes utilize its seven-axis industrial robot, CNC machine, large autoclave, clean room and paint booth.

The Human Element

Behind the technology is a highly skilled Vietnamese workforce, trained in advanced composite processes.

Vietnam's manufacturing sector provides a rich source of talented, disciplined technicians. Through ongoing training and a strong quality culture, Triac ensures that every employee understands not just how to build, but ***why*** each process matters.

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For more information visit:
www.triaccomposites.com and https://rapidotrimarans.com

Thank you to Richard Eyre, co founder Triac Composites & Rapido Trimarans, to Phil Johns and to all at Triac Composites for this insightful article.

Article arranged by Peter Broad, CEng, FIIMS, FIMarEST, Immediate Past President of IIMS.

The Rapido 50's centre hull is vacuum infused to produce a high-fiber, low-resin laminate free from dry patches or excess resin which delivers maximum structural integrity at the lowest possible weight

Two centuries on the Erie Canal

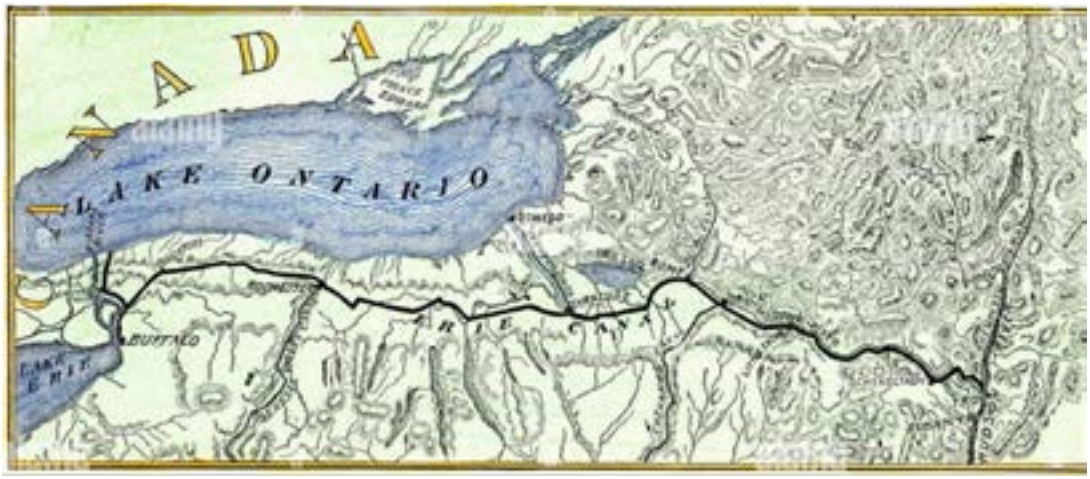
By **Owen James Burke**

The Erie Canal is a manmade superhighway of sorts: a long, narrow waterway that winds through towns, marinas and lakes, and that put New York State on the map as "The Granary of the World."

Before the canal, mules were the best mode of bulk-goods transportation that early European settlers could muster. The pack animals would carry about 250 pounds apiece through challenging terrain and then draw a barge along a towpath in a 60,000-pound-per-mule ratio. The first talk of a far more efficient canal was around the turn of the 18th century, and plans were set in motion in the early 19th century.

Even then, people balked at the idea. With a 571-foot elevation change along a winding route, building a canal seemed downright impossible. President Jefferson wrote off the idea as "little short of madness."

So much for the naysayers. Today, the Erie Canal has seen a full 200 years of servicing all walks of maritime traffic, from barges carrying grain to pleasure boaters toting sunscreen. And although today's canal carries but a trickle of the traffic it did at its peak in the 1950s, it has become a favorite part of the cruising scene for boaters who like to take their time in Great Loop style.



Clinton's Folly

The initial idea for the Erie Canal may have been discussed as early as 1790, and there's no denying that early talks were greatly inspired by China's 1,104-mile Grand Canal. A flour merchant from Bridgeport, Connecticut - who was in debtor's prison for failed westward shipment of products - wrote a proposal for how a canal might be built. During his incarceration, Jesse Hawley penned more than a dozen essays detailing plans for a 400-mile canal from Buffalo to Albany. They were published in the early 1800s in the Genesee Messenger.

New York state Assemblyman Joshua Forman then proposed legislation to determine whether Hawley's route was actually feasible. It was ultimately De Witt Clinton - who served as a New York state senator, New York City Mayor, New York Governor and U.S. Senator - who got credit for putting the plan in motion. People called the project "Clinton's Folly" and "De Witt's Ditch," what with there being maybe 10 engineers in the entire United States of America at that time. The Army Corps of Engineers was just being established right around that same time.

Nevertheless, some $7 million (more than $165 million in today's dollars) was afforded to the project, which broke ground in Rome, New York, on Independence Day in 1817. Initially, the diggers were mostly local farmers whose land the canal would flow through. That gruelling work was done over the course of eight years, mainly by hand and animal power. Eventually, work gangs were called in, including many Irish and European settlers.

By October 1819, the eastern section of the canal was in use between Rome and Albany. Six years after that, the entire 363-mile-long, 40-foot wide, 4-foot-deep waterway connecting Albany to Buffalo was deemed complete, on October 26, 1825.

Then-Governor Clinton helmed the first passage from Buffalo to New York City aboard the 73-foot steam-powered canal boat Seneca Chief. Upon arrival in New York Harbor, he produced two barrels of Lake Erie water and ceremoniously emptied them to commemorate the mixing of waters.

Somewhere between a year and a decade after the canal's completion, tolls and taxes had covered the state's debt to create and build it. A near-constant stream of vessels flowed through the waterway almost from the get-go, with those first passages made primarily by freight and packet boats. The former were towed by horses or mules on a towpath. The latter were passenger boats, in essence, with galleys, wood stoves and bunks for up to 40 overnight passengers.

Boats passing one another on the canal's first rendition found the space particularly tight. Carol Sheriff methodically described one such passing in The Artificial River: The Erie Canal and the Paradox of Progress,

The westbound gates of Lock E5 in Waterford.

1817-1862. The vessels, pulled by teams of two or three horses or mules driven by a "hoggee," had little leeway on the single towpath. The vessel being overtaken was given right of way, which meant the deferring vessel would take to the berm, or heelpath, letting its towline sink. This process, coupled with the fact that horses would have to be changed frequently, meant that things could, and did, get tricky.

In 1835, author Nathaniel Hawthorne took a packet boat cruise and recounted more than one such mishap: "Several little accidents afforded us good-natured diversion. At the moment of changing horses, the towrope caught a Massachusetts farmer by the leg and threw him down in a very indescribable posture, leaving a purple mark around his sturdy limb." Another entanglement, this time with a fallen branch, ultimately left him marooned at the canal's edge at midnight, ending his voyage abruptly.

Still, Hawthorne was left enamored by the canal's splendor. He was so attracted to the burgeoning American communities sprouting along its shores that he made plans to travel its distance from Buffalo to Albany not once, but twice that summer.

"I was inclined to be poetical about the Grand Canal," he began his account in New England magazine. "Surely, the water of this canal must be the most fertilizing of all fluids; for it causes towns - with their masses of brick and stone, their churches and theatres, their business and hubbub, their luxury and refinement, their gay dames and polished citizens - to spring up, till, in time, the wondrous stream may flow between two continuous lines of buildings, through one thronged street, from Buffalo to Albany."

Alas, the ever-curious Hawthorne wandered ashore during a hangup due to a towrope disentanglement, and his ride slipped away. Four miles an hour may be slow, he noted, but it was plenty fast enough to outpace him. He was left to make his way to Syracuse by foot the next day.

Right around the time of Hawthorne's misadventure, New York State—which was, and still remains, the canal's sole proprietor—voted to widen and deepen the waterway to 70 feet by 7 feet, and to alter each rise to include twin locks. Just 15 years into the canal's existence, New York Harbor would become the busiest port in the United States, moving more tonnage than Boston, Baltimore and New Orleans combined.

In 1895, a flight of five locks made up the passage through Lockport.

Transitional Period

The sudden influx of canal traffic, commerce and wealth also brought the inherent underbelly of grifts and vices. Bordellos, bars, casinos, and a litany of beggars and hangers-on were quickly drawn to the canal's proverbial banquet.

Morally concerned citizens protested, leading to social reform and religious revivalism - namely, New York abolitionist Charles Finney's Second Great Awakening. Finney's movement helped give rise to western New Yorker Joseph Smith's Church of Latter-Day Saints. The less-savory elements around the canal were somewhat successfully repelled, and the towns along its banks became relatively family friendly again. This was thanks in no small part to Smith's Book of Mormon, whose texts are said to have been discovered and translated just south of the canal.

So many memorable moments in history happened here. Frederick Douglass published his North Star newspaper along the canal in Rochester. With the help of Douglass and Finney, the Underground Railroad found a shortened route just beyond the canal's towpath, allowing refugee slaves to transit the entire state of New York within a week as opposed to a month.

The Women's Rights Movement, too, is indebted to the waterway. Activist and author Elizabeth Cady Stanton was a driving force behind the 1848 Seneca Falls Convention - the first to call for women's rights - and joined forces with Susan B. Anthony along the canal, publishing The Lily, the United States' (and perhaps the world's) first newspaper edited by and for women. The duo used the canal, its mail-delivery boats and access to the dignitaries who transited the waterway to create a veritable network of freedom. The Erie Canal saw its peak year during this period, with some 33,000 commercial shipments in 1855.

At the outbreak of the Civil War, the Union army used this superhighway to deliver a flow of goods, including artillery and supplies, at a rate of

speed comparable to the Mississippi River. The Erie Canal played no small part in the Union's ultimate success.

Modern Times

The turn of the 20th century saw waterways giving way to railways. Fearful and at times disdainful of the increasingly monopolistic railroad industry, President Theodore Roosevelt called in 1905 for construction of the Barge Canal. It was a nearly $100-million-dollar ($3.5 billion today), 13-year-long undertaking that diverted the canal and created a 120-foot wide, 12- to 24-foot deep waterway, including 34 new locks and the Waterford Flight, the United States' steepest set of locks to date.

This expansion kept the Erie Canal competitive with railroads into the mid-20th century, with 1951 seeing more freight than any other year in history. Shortly thereafter, though, it gave way to Canada's then-new St. Lawrence Seaway to the north.

Coinciding with this transportation revolution was the grinding halt in American steel production, leaving the Erie Canal and the towns and cities along it in the rust and dust. Commercial traffic was reduced to a trickle. By the 1980s, the canal and its communities faced a decrepitude that would have been unthinkable in the century past. The New York State Canal Corporation was created in 1992 to, among other things, rejuvenate the waterway and its communities. Tens of millions of dollars were invested in maintenance and operations, slowly but surely opening the floodgates to more economic opportunity.

Boaters - especially cruisers in the Northeast cruisers and Great Loopers - also played a sizable part in the canal's rejuvenation. As commercial traffic bottomed out, they discovered a leisurely tour. In recent years, vacant mills and industrial facilities have been given new life as bars, restaurants, galleries, spas, bed-and-breakfasts and casinos.

"That's where investments have been made," says Jean Mackay, director of communications for the Erie Canalway National Heritage Corridor in Waterford, New York. "Some communities just simply, either because of politics or poverty or both, have a harder time making a comeback because they don't have the resources, but there is that spirit of like, 'OK, let's keep tackling this. Let's figure it out.'"

Today, the New York Power Authority invests an average of $140 million a year into not only the canal's functions, but also the communities around it, through grants, better access and 365 miles of New York's 750-mile-long Empire State Trail. In anticipation of a bicentennial commemoration, the past five years have seen double the investment.

200 Years and Counting

Festivities for the Erie Canal bicentennial this year kicked off in May with the seasonal opening of the system. The action ran until early November with a later-than-usual closure to accommodate a reenactment of the original Seneca Chief's voyage.

Pleasure boats wait for a lock to fill, and their crews learn that traversing the Erie Canal forces a slower cruising pace, which many boat owners have come to embrace.

ABOUT THE AUTHOR
Owen James Burke

Owen Burke grew up on, in, and around Long Island Sound, where he worked on fishing boats and spent any free time, he had aboard his Stur-Dee Dory. He has sought fish, waves, and stories around the world and done several stints along the way in Taiwan, Fiji, New Zealand, and the Caribbean, among other places. He currently resides in New York City, fleeing at every chance he gets.

This article was first published on the Soundings website and is printed here with our thanks.

Website:
https://soundingsonline.com

A day in the life of Paul Lockhart

Mike Schwarz went in search of IIMS member, Paul Lockhart, who although based in southern France, is constantly on the move it seems.

His experience spans small craft right up to 100 metre plus superyachts.

Q1 How did you find yourself becoming a marine surveyor and what was your motivation to want to do this job and become one?

I recall, back in the late eighties and early nineties, when I was in my early twenties serving as a soldier, I was stationed at the British Kiel Yacht Club in Germany as a sailing instructor. We had a fleet of about 35 yachts that we used for adventure training.

Each year, a marine surveyor would visit the yacht club to inspect the yachts for condition insurance purposes. I remember watching him wander around, tapping the hulls here and there, and thinking to myself how interesting his work looked as a potential career. That moment sparked my curiosity about marine surveying.

I began to research the field and quickly realised just how much knowledge was required. I read several books on the subject, one of which stood out in particular - Nigel Calder's Boatowner's Mechanical & Electrical Manual. My father bought me that book in 1996, and I still have it on my surveyor's bookshelf today.

Determined to be a surveyor one day in the future, I slowly gained knowledge of yacht systems and construction, continued sailing and got hands-on experience, both with sailing yachts and motor yachts.

In 2005, after twenty years as a professional sailor and yacht captain/engineer, and having completed the IIMS Yacht & Small Craft Surveying Diploma, I was fortunate to meet a highly experienced surveyor who took me under his wing and mentored me into the profession.

Ultimately, my motivation to become a surveyor has always been about knowledge - both gaining it and sharing it. There's a fantastic sense of satisfaction that comes from completing a detailed report, sending it out, and then receiving a heartfelt thank you for the quality of the work and the way it was presented.

Q2 What is it you find most rewarding about your role as a marine surveyor?

Primarily, I find the greatest reward in the appreciation received from clients following the submission of a report, and in the satisfaction of being relied upon for professional guidance and expertise - whether for a pre-purchase inspection, or a damage survey on behalf of underwriters. The field in which I work is highly diverse, keeping me constantly engaged and adaptable. No two days are the same: one day I may be inspecting a 40-foot sailing yacht for a pre-purchase survey, and the next, assessing a major claim involving main engine failure on a 90-metre superyacht. It is deeply gratifying to have a client base that values my surveying methods and reports, allowing them to make informed decisions with confidence.

Q3 Typically what types of vessels are you looking at on a regular basis and what is the core of your work?

I began my career primarily as an insurance surveyor, assessing damage on a wide range of vessels from 5-metre tenders to 100-metre-plus superyachts. As my client base grew, I expanded my services to include pre-purchase and condition surveys for vessels between 10 and 45 metres.

Today, my main area of expertise lies in conducting pre-purchase surveys on superyachts over 50 metres. I also continue to carry out insurance and damage surveys on behalf of underwriters.

My core focus is on the engineering systems of large yachts, which are highly complex and technically advanced. Typically, I form part of a specialist survey team for yachts over 50 metres, where I take responsibility for the engineering department. However, thanks to my background and hands-on experience, I am equally comfortable working across deck, bridge, and interior systems when required.

Q4 On survey, or when writing your reports, are you a gadgets man I wonder, or do you rely on the tried and tested methods? Which are your favourite tools in your toolbox and do you have an opinion on report writing software that is becoming ever more popular?

After more than twenty years in surveying, I can safely say that the most valuable tools to have with you are a good camera, a reliable torch, a notebook, and a pen. These simple essentials are indispensable. In addition, I carry a few other devices that greatly assist during inspections - such as a thermal camera, an endoscope camera, and a jeweller's loupe.

For every survey, I also use a detailed checklist to ensure that all specific tasks are completed. In the past, this was a printed proforma, but with modern technology, I now manage this process through a dedicated app on my phone, which makes documentation and consistency much more efficient.

Q5 We often gloss over the importance of Continuing Professional Development, but given the advancement of new technology, what are your thoughts on its importance?

Continuing Professional Development (CPD) has never been more important than it is today. With the rapid advancement of technology and the skills that marine surveyors now require in a digital world in which we now live in, its unavoidable as a marine surveyor to not have an ongoing learning schedule. What was relevant 12 months ago might already be outdated, so continuous learning is essential not just for career progression, but for staying competent and being ahead of the game.

Ultimately, CPD is not just about keeping up; it's about staying ahead. It's what drives me to maintain a professional standard, contribute creatively to our organisations, and maintain high standards of service and professionalism in our world of surveying.

Q6 Over the years you have been involved in this industry, what are the biggest changes you have seen that have impacted on your daily work?

I would say one of the biggest changes over the years has been the turnaround time for finalising and delivering reports combined with the tools now available to produce an effective report. In the past, I would write the report, print it, and physically send it to the client. Over the last decade, however, I can't recall the last time I printed a report, everything is now delivered electronically, often with app-based links that make viewing and reading the report far more convenient for clients.

Without doubt, this shift to app based digital reporting has been the most significant change in the last three to four years which has reduced time in the office for report writing, and I believe we'll continue to see even more report-writing and client-viewing apps emerging in the industry. These tools are fantastic for improving efficiency and presentation, but their effectiveness still depends on the accuracy and quality of the information entered by the surveyor and ultimately the knowledge the surveyor has and how the surveyor can transmit the findings to produce an effective report.

Q7 What advice would you offer to someone making their way in the marine surveying profession today?

Fundamentally, the number one way to develop as a marine surveyor is to gain experience alongside a seasoned professional. Equally important is hands-on experience as a yacht engineer and captain. Reading and studying surveying literature, attending courses, and completing qualifications such as the IIMS Diploma, which I achieved in 2006/2007, is equally important and provides an excellent foundation of knowledge, but hands on experience cannot be underestimated.

In my experience, the real depth of understanding comes from mentorship and practical involvement. Being mentored for eight years by an experienced surveyor, combined with many years working as a yacht captain and engineer, were crucial steps in shaping my skills and knowledge as a professional marine surveyor. I believe what makes a good surveyor is a combination of the above factors all moulded into one.

Q8 Marine surveying remains a largely unregulated profession across the world in so far as anyone can pick up a hammer and, worryingly, have a go, which is in sharp contrast with the seemingly ever-increasing regulations engulfing the small boat and yacht sector. What are your thoughts on this?

Without doubt, I believe the time is long overdue for a fundamental re-think regarding the regulation of the marine surveying profession. It remains a part of the industry that is often overlooked, despite the critical role surveyors play in safety, compliance, and client assurance.

In my view, all practising surveyors regardless of their background or other qualifications should undertake formal surveying training before being recognised or registered as marine surveyors. The International Institute of Marine Surveying (IIMS) is taking the right steps in this direction, and I sincerely hope that, in time, regulatory bodies will recognise the importance of our work and move toward establishing a clear and consistent professional standard.

Q9 In your role as a member of the IIMS Professional Assessment Committee, what are the reoccurring things you see from new applicants that give rise for concern, and can you pass on any tips and advice as to how people can better prepare themselves for applying to become a member?

The number one issue I see in many reports today is a lack of detail. We must always remember that a survey report is intended to be a thorough and detailed inspection of a vessel, tailored to the type of survey being carried out. Too often, I come across reports that read more like inventories listing what's on board rather than providing meaningful descriptions or assessments of the installed systems.

My advice to surveyors is two-fold:

1. Put yourself in the client's position. Imagine you are the one reading the report, what information would you want and expect to see?
2. Provide a dedicated clear and concise defects and recommendations section in the report. This is typically the first section of the report a client will read. Each defect should be described in detail, with a clear explanation and an appropriate recommendation alongside it.

Simply stating that "the bilge pump was defective" with a recommendation to "repair the pump" is, in my view substandard. The report should explain why the pump was defective, how it can be repaired, and any potential implications if the issue is not addressed. That level of detail and clarity is what distinguishes a professional, high-quality survey report from an average one.

Q10 Probably like many marine surveyors, you spend plenty of time travelling for work. How do you like to keep yourself occupied when on the move?

If I'm not driving to a job, then normally I'll have my headphones on and be listening to music. These days, around 75% of my travel time is spent on planes, so I always make sure I have a good playlist ready and a fully charged set of headphones. It's a simple way to unwind and switch off between surveys. I sometimes write up my notes when travelling but try to avoid this in flight. Airport lounges are a great place to catch-up on work. I have the Priority Pass Account which is well worth the annual fee to be able to use airport lounges for report writing and email catch-up etc.

Q11 As a fellow Francophile, I am slightly envious that you live in an area of the world with easy access to delicious local French cheeses and wines. Which are your favourites?

To be honest, although I live in France, I travel so much that I get to sample wines and cheeses from many regions. That said, my favourite pairing would have to be a crisp Sancerre white wine with a Tomme de Savoie. I'm sure plenty of French wine and cheese experts might have their own opinions, but for me, it's a perfect combination. Equally though, when I'm travelling or surveying in Italy, sipping a Coli di Luni Vermentino and Pecorino cheese with a hint of chili is a nice way to take an aperitivo after a day's work.

Q12 Looking back over your career, what one thing (if anything) would you change?

If I could change one thing, it would be to have studied more report-writing literature earlier in my career and to have recognised sooner just how important strong report-writing skills are in this profession. The technical side of surveying develops naturally with hands-on experience, but the ability to communicate findings clearly, accurately, and professionally in a report is equally vital and should never be underestimated how important it is to create an effective report.

To ensure an effective report can be produced, always ensure you allow sufficient time to complete your report after the survey. A report should never be rushed, it is after all, the lifeline to your client and future clients.

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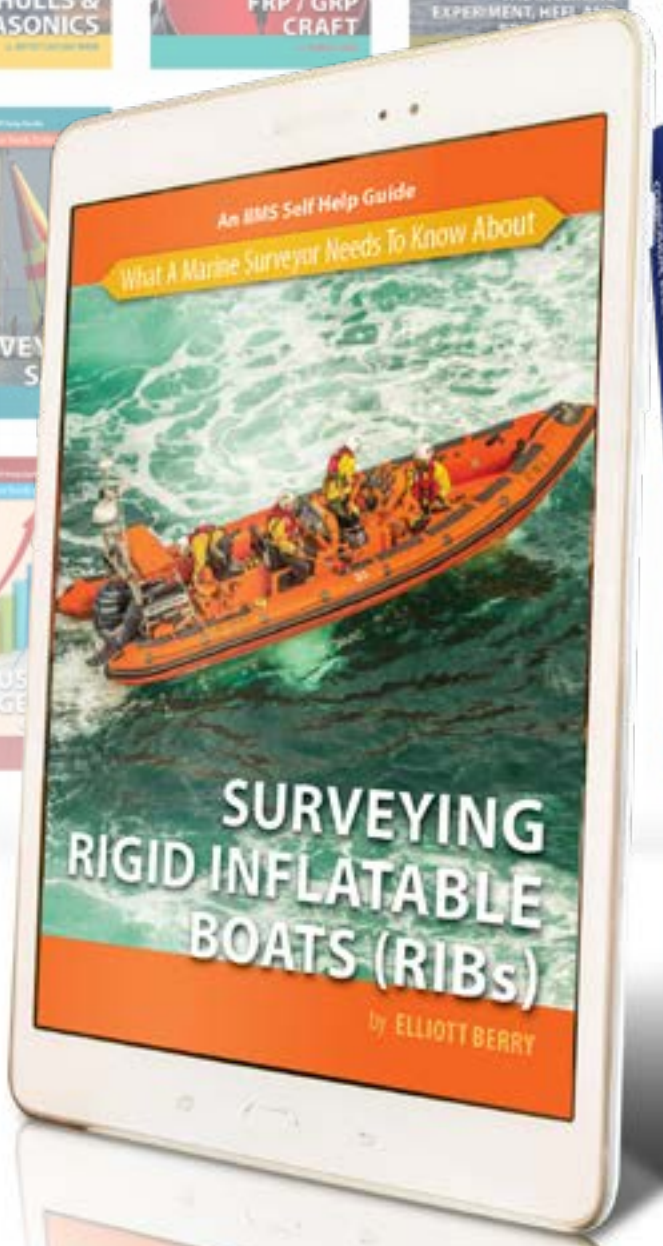

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