KM News Bulletin

KEY MARINE
IT'S YOUR KEY TO SUCCESS

JANUARY 2026

Welcome **to this month's news bulletin compiled by Key Marine, the leading worldwide professional body for professional Marine surveyors / Ship Owners / Operators / US Coastguard.**

This monthly publication aims to keep Mariners, and those who touch the Marine profession up to date with relevant industry news, the latest marine innovations and essential information for Inspectors. For more information about the Key Marine, visit: **www.keymarine.org** to discover a company profile and be find a proffesional tools like **KM-PARI (Key Marine-Pre Arrival risk Intelligence)**

BROADCAST FROM THE BOW

- In 2026 we are celebrating 25 years of excellence in marine Industry -

Dear fellow maritime professionals

Welcome to 2026 and a Happy New Year to you and your family. In a turbulent world, may it be a good one for you.

KM celebrates its 25th anniversary later this year. That's something to be proud of, and as a Company we have come a long way in a little over a second of a century. I was curious to research and discover what a 25th wedding anniversary is known as. To my surprise and delight, I discovered it is referred to as a Silver anniversary! The nautical conections as a silver compases was used on Sail vessels long time ago it seem very appropriate indeed.

After the New Year weekend period, the weeks leading up to the break will move quickly. Before the month fully settles into its routine, KM will deliver meaningful training that is expected to attract strong interest and a high level of attendance. I will include a short report in this News Bulletin for those who are interested We will share a more detailed event plan in next month's News Bulletin.

Last year proved to be the busiest year for me, and we delivered some excellent service for US Customers. So, having said I have no plans for extensive travel, there is one exception, early in 2026. I am making the trip to the annual Baltimore Conference for the Surveyors to be held at the usual MITAGS facility on the city's outskirts on Friday 30th and Saturday 31st January. Who interested can Join me. Please sent your email to: Survey@keymarine.org

In last month's SAF-20 Circular, I referenced a number of new international maritime regulations coming into force from January 2026. The list is extensive. I have devoted some space to this fresh set of regulations because it marks the biggest shake-up in twenty-five years in this sector and replaces the long-established document (amongst others).

And finally, I wanted to point you towards Edition V of the Safety & Loss Prevention Briefings Compendium, it was published recently. I had rather hoped this year's edition might be considerably smaller than previous years, but sadly we have noticed what seems to have been an unwelcome, sharp increase in the number of incidents and accidents at sea, on rivers and inland waterways in 2025. It really is a sobering read, but it has a place on every marine surveyor's electronic bookshelf, and I recommend it to you.

Stay Safe in 2026.

Oleg Kolesnykov
Chief Executive Officer

KM February Training Plan

KM is busy with the assignments howewer we are still planning our training.

At the start of February, we will held the first iteration of our Practical Surveying Course for the "Vessels Drought Survey" The event is free, and the is limited to the 12 sits. Draft surveys are a cornerstone of maritime operations, ensuring safe and efficient vessel management. With the evolving complexities of modern shipping, precise draft surveys have become a critical skill for marine surveyors, vessel operators, deck officers, and shipowners.
The course is including a 9 modules:
- Basics for the Draught Survey
- Draft Reading
- Sampling of Water Density
- Calculations
- Deductibles and Sounding
- Net Displacement
- Cargo weight and Constant calculations
- Factors that may influence Draft survey accuracy
- Discrepancy

The Draft Survey Course will equips maritime professionals with cutting-edge techniques to master draft survey calculations techniques.
You will learn Advanced Calculations and Technics Master the methods for accurate draft survey calculations including the actions in case of disputes. Regulatory Compliance and Documentation Gain expertise in draft survey procedure and learn to maintain accurate records and reports.
Whos really interest can attend the **Practical Survey Operations** during real time work with Key Marine.
Troubleshooting and best Practises **Develop problem-solving skills** to address survey discrepancies and ensure consistent accuracy in complex maritime operations

We are enhancing our team!!!

Captain Valerii Barbas join our family in January 2026

Captain Valerii Barbas is a seasoned maritime professional whose career reflects deep technical competence, steady leadership, and a strong commitment to safety and operational excellence. With extensive experience across international trade routes and complex port environments, he has built a reputation for maintaining high standards on board and delivering reliable performance under demanding conditions. His approach combines practical seamanship with modern management principles—balancing the realities of day-to-day operations with long-term risk control and compliance.

Throughout his years at sea, Captain Barbas has navigated a broad range of operational challenges: voyage planning and execution, shiphandling in restricted waters, coordination with pilots and terminals, and the careful management of cargo operations where precision and discipline are essential. He is known for a methodical and proactive mindset—anticipating issues before they escalate and ensuring the ship's readiness through robust procedures, clear communication, and continuous monitoring of critical parameters. Whether the task is safe mooring, cargo transfer, ballast and stability management, or maintaining effective watchkeeping practices, he consistently demonstrates calm authority and attention to detail.

A defining element of Captain Barbas's leadership is his focus on safety culture. He believes safety is not a checklist exercise but a daily habit built on training, accountability, and trust. He emphasizes strong bridge team management, effective toolbox talks, and meaningful risk assessments that translate into real actions—not paperwork. Under his command, crews understand expectations, operate with confidence, and remain alert to hazards, near-misses, and changing conditions. He supports a "speak up" environment where officers and crew can raise concerns early, helping prevent incidents and protecting both people and the vessel.

Captain Barbas also brings a compliance-oriented perspective aligned with international and flag-state requirements. He understands the importance of consistent standards across shipboard routines, documentation, and maintenance planning, ensuring the vessel remains prepared for inspections and audits. His work reflects familiarity with best practices under ISM Code principles, port state control expectations, and the operational discipline required to meet terminal and charterer requirements. His ability to align shipboard operations with regulatory and commercial standards has contributed to smoother port calls, stronger relationships with Stakeholders and improved overall perfomance.
Beyond operational capability, Captain Barbas is respected as a mentor and professional role model. He invests in developing officers by strengthening their decision-making skills, situational awareness, and confidence in executing procedures correctly. He values practical training, clear feedback, and building competence step-by-step—particularly in areas such as passage planning, cargo operation monitoring, and emergency preparedness.

His leadership style encourages professionalism, responsibility, and pride in good seamanship, which ultimately supports safer and more efficient operations. In summary, Captain Valerii Barbas represents the qualities that define strong maritime leadership: technical expertise, disciplined execution, unwavering safety focus, and a steady hand in complex situations. He is the kind of captain who sets a high standard, brings stability to operations, and inspires trust among crew and shore-based stakeholders alike.

United States Coast Guard
U.S. Department of Homeland Security

MSIB XXV Issue 066 Notice of Krotz Springs Railroad Bridge Deviations
U.S. Coast Guard sent this bulletin at 09/15/2025 07:49 PM EDT

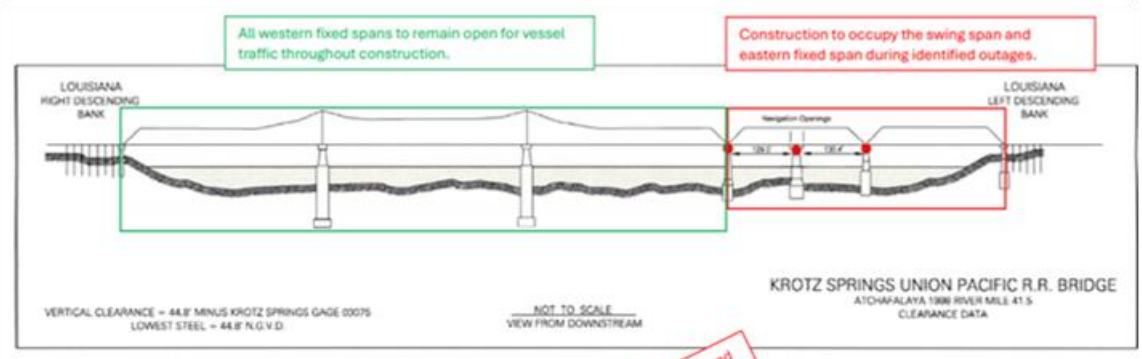
Notice of Krotz Springs Railroad Bridge Deviations: Scheduled Closures and Operations for 2025 and 2026

1. U. S. Coast Guard Sector New Orleans has issued a notice of deviation from the Krotz Springs Railroad Bridge's normal operations. While repairs are conducted, the Union Pacific Railroad drawbridge across the Atchafalaya River, Mile Marker 41.5, near Krotz Springs, LA will have scheduled closures and operational deviations. The repairs are scheduled from June 3, 2025 to June 29, 2026. As shown below, the western fixed spans of the bridge will remain open for vessel traffic throughout construction.

A. Refer to the calendars and corresponding legend on pages 1 & 2 of this bulletin for the scheduled operations from September 15, 2025 to May 29, 2026.

2. For on scene information, mariners may contact the Union Pacific Railroad Bridge at 337-566-3713 or VHF CH. 13.

3. **NOTE: Dates subject to change.**



2025

JULY

Mo	Tu	We	Th	Fr	Sa	Su
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

AUGUST

Mo	Tu	We	Th	Fr	Sa	Su
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

SEPTEMBER

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12

OCTOBER

Mo	Tu	We	Th	Fr	Sa	Su
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

NOVEMBER

Mo	Tu	We	Th	Fr	Sa	Su
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7

DECEMBER

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

	-	6 hour notice for marine opening for openings between 6:30 p.m. and 6:30 p.m. the following day. On Demand between 6:30 a.m. and 6:30 p.m.
	-	Phase of construction in which bridge operates normally, on demand.
	-	6 hour notice for marine openings 12:00 a.m. through 11:59 p.m. on the last day.
	-	Repetitive 96 hour marine outages Monday through Thursday. Work to replace roller bearing components. Bridge cannot open during work. PCL to work 24/7 during each of the 96 hour outages.

For further information, contact the following:
Coast Guard Baton Rouge Waterways Management: (225) 298-5400 x 230
Coast Guard Sector New Orleans Waterways Management: (504) 365-2278
Coast Guard Sector Command Center New Orleans (24 hours): (504) 365-2209

CAPTAIN GREGORY A. CALLAGHAN
Captain of the Port, New Orleans

NTSB: loose wire on containership Dali led to Scott Key Bridge collision

The US National Transportation Safety Board said a single loose wire on the Dali containership caused an electrical blackout that led to the vessel hitting the Francis Scott Key Bridge, which then collapsed, killing six highway workers.

At a public meeting, investigators said the loose wire in the ship's electrical system caused a breaker to unexpectedly open - beginning a sequence of events that led to two vessel blackouts and a loss of both propulsion and steering near the 2.37-mile-long Key Bridge on March 26, 2024. Investigators found that wire-label banding prevented the wire from being fully inserted into a terminal block spring-clamp gate, causing an inadequate connection.

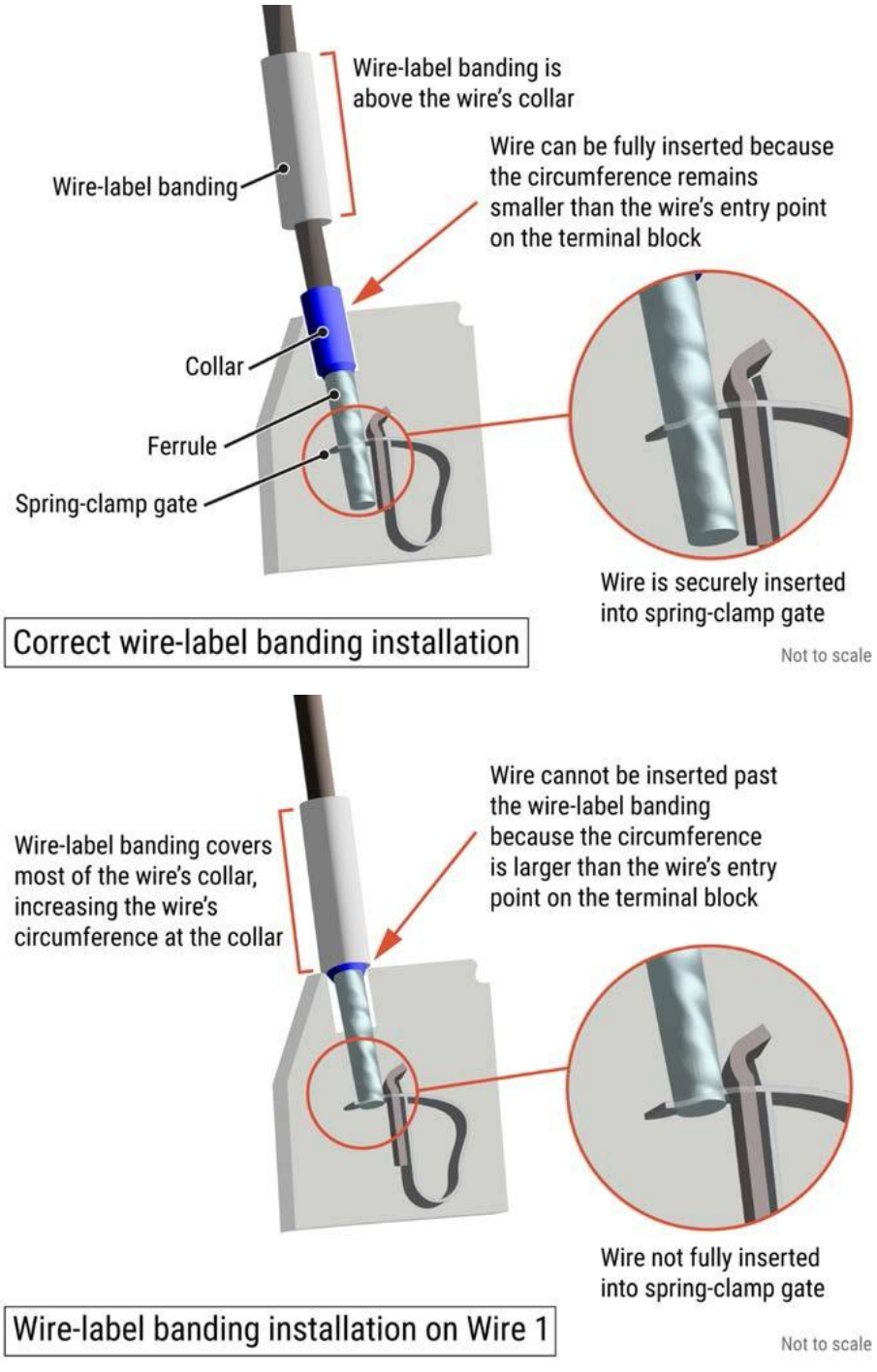


Illustration showing how placement of wire-label banding affects the way wires are seated in their terminal blocks. (Source: NTSB)

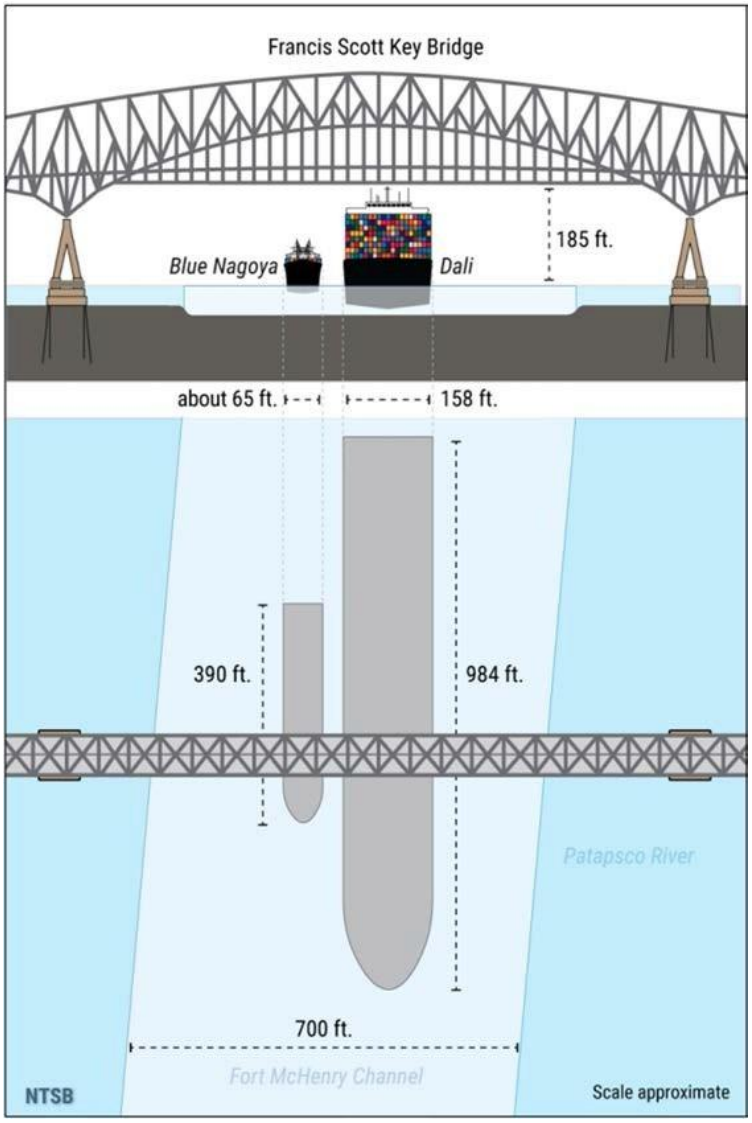
After the initial blackout, the Dali's heading began swinging to starboard toward Pier 17 of the Key Bridge. Investigators found that the pilots and the bridge team attempted to change the vessel's trajectory, but the loss of propulsion so close to the bridge rendered their actions ineffective. A substantial portion of the bridge subsequently collapsed into the river, and portions of the pier, deck and truss spans collapsed onto the vessel's bow and forwardmost container bays.

A seven-person road maintenance crew and one inspector were on the bridge when the vessel struck. Six of the highway workers died. The NTSB found that the quick actions of the Dali pilots, shoreside dispatchers and the Maryland Transportation Authority to stop bridge traffic prevented greater loss of life.

"Our investigators routinely accomplish the impossible, and this investigation is no different,' said NTSB Chairwoman Jennifer Homendy. "The Dali, at almost 1,000 feet, is as long as the Eiffel Tower is high, with miles of wiring and thousands of electrical connections. Finding this single wire was like hunting for a loose rivet on the Eiffel Tower.

"But like all of the accidents we investigate,this was preventable," Homendy said. "Implementing NTSB recommendations in this investigation will prevent similar tragedies in the future."

Contributing to the collapse of the Key Bridge and the loss of life was the lack of countermeasures to reduce the bridge's vulnerability to collapse due to impact by ocean-going vessels, which have only grown larger since the Key Bridge's opening in 1977. When the Japan-flagged containership Blue Nagoya contacted the Key Bridge after losing propulsion in 1980, the 390-foot-long vessel caused only minor damage. The Dali, however, is 10 times the size of the Blue Nagoya.

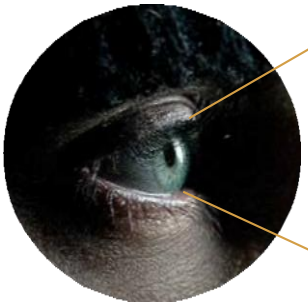


Source: NTSB

As part of the investigation, the NTSB in March released an initial report on the vulnerability of bridges nationwide to large vessel strikes. The report found that the Maryland Transportation Authority—and many other owners of bridges spanning navigable waterways used by ocean-going vessels—were likely unaware of the potential risk that a vessel collision could pose to their structures. This was despite longstanding guidance from the American Association of State Highway and Transportation Officials recommending that bridge owners perform these assessments.

The NTSB sent letters to 30 bridge owners identified in the report, urging them to evaluate their bridges and, if needed, develop plans to reduce risks. All recipients have since responded, and the status of each recommendation is available on the NTSB's website.

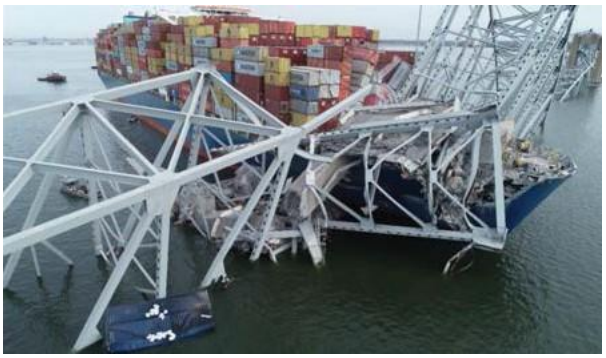
As a result of the investigation, the NTSB issued new safety recommendations to the US Coast Guard; US Federal Highway Administration; the American Association of State Highway and Transportation Officials; the Nippon Kaiji Kyokai (ClassNK); the American National Standards Institute; the American National Standards Institute Accredited Standards Committee on Safety in Construction and Demolitions Operations A10; HD Hyundai Heavy Industries; Synergy Marine Pte. Ltd; and WAGO Corporation, the electrical component manufacturer; and multiple bridge owners across the nation.



What caught my eye...

Capt.Oleg Kolesnykov eye-catching and eventful marine news

The Francis Scott Key Bridge Baltimore accident: Now we know the cause



You don't need me to remind you of the catastrophic incident in March 2024, which resulted in the MV Dali totally destroying the Francis Scott Key Bridge in Baltimore, killing six highway workers in the process. It really is one of the most spectacular and tragic maritime accidents in recent times, witnessed around the world by millions. But I wanted to add some additional, personal commentary.

Now we learn from a public meeting late last year, held by investigators, that a loose wire in the ship's electrical system caused a breaker to unexpectedly open, which started a chain of events that led to two vessel blackouts and a loss of both propulsion and steering. Investigators found that wire-label banding prevented the wire from being fully inserted into a terminal block spring-clamp gate, causing an inadequate connection.

When I shared this information with some close friends in discussion, who have limited knowledge about what happens at sea, they were frankly incredulous that something such as this could cause such devastation, loss of life and a massive insurance pay out running into billions to rebuild the structure, and to say nothing of the lives needlessly lost. I share their sense of incredulity and disbelief! Please let this be another wake up call for the industry.

ABS and Persona AI partnership to bring humanoid robotics to shipyards

Conceptual image courtesy of Persona AI

A collaboration to develop inspection technologies for Persona AI's humanoid robot platform was formalized with the signing of an MOU between ABS and Persona AI.

The initiative will focus on adapting Persona AI's humanoid robots, based in part on NASA's robotic hand technology, for a range of shipyard tasks. Unlike traditional industrial robots, humanoid robots are uniquely suited to operate in shipyards designed for human workers, offering flexibility and mobility in complex, confined, or ergonomically challenging spaces.

Under the MOU, ABS and Persona AI will collaborate on a series of joint development projects, collecting data to support classification during ship construction.

Ultimately, it will support development of new ABS standards for the types and quality of data required to support digital and remote survey techniques. These standards will not only guide future robot design but also help understand how to collect, evaluate, and apply robotic data for certification and compliance purposes.

"ABS is proud to lead the way in advancing the safe integration of emerging technologies into the maritime industry," said John McDonald, ABS President and Chief Operating Officer. "This collaboration with Persona AI reflects our commitment to innovation and safety, as we work to establish the standards and protocols that will enable humanoid robots to perform complex tasks reliably and securely in shipyard environments. By combining cutting-edge robotics with ABS's deep expertise in certification and safety, we're helping shape a smarter, safer future for shipbuilding."

Nic Radford, CEO and Co-Founder of Persona AI said, "This marks a defining moment for the shipbuilding industry. Partnering with ABS, the global authority on maritime standards, demonstrates that humanoid robotics are no longer a distant concept but on a path toward certified reality, set to transform how this industry builds, innovates, and competes."

MARINE TRANSPORTATION SAFETY INVESTIGATION REPORT M23C0257

Fatal Silver Condor sinking reflects long-standing safety issues in commercial fishing

The Transportation Safety Board of Canada (TSB) has published its final investigation report into the sinking of the fishing vessel Silver Condor, which resulted in the deaths of three crew members near La Tabatière, Quebec.

What happened

On 24 September 2023, the fishing vessel Silver Condor, with 6 people on board, began its return trip to port after fishing for redfish. Around midnight on 25 September, the vessel started listing to port and sinking by the stern; as the vessel sank, all people on board entered the water.

At 0230, search and rescue authorities received a signal from the Silver Condor's emergency position-indicating radio beacon. After trying to contact the vessel without success, a search was launched using several vessels and aircraft. All the people were eventually recovered from the water and brought to the hospital in Corner Brook, Newfoundland and Labrador. Three of the people were treated for hypothermia and other injuries, and the other 3 were declared dead. The vessel was not recovered.

Findings

These are the factors that were found to have caused or contributed to the occurrence:

- The vessel was likely operated beyond its stability limits, reducing its freeboard and its reserve buoyancy, which contributed to its sinking when the sea state degraded.
- Not all of the vessel's immersion suits were accessible as the vessel sank; consequently, a crew member donned only a life jacket and, after being exposed to the cold water environment, he became hypothermic and died.
- The way the life raft was stored likely prevented it from floating freely when the vessel sank by the stern. Consequently, the life raft was inaccessible to the complement as they abandoned ship, and they were then exposed to the elements.
- Crew members had to don their immersion suits quickly because the vessel was rapidly sinking; consequently, 2 crew members did not don their suits properly and were exposed to cold water without adequate protection, which contributed to their deaths.
- The master was acutely fatigued, which likely reduced his ability to recognize and respond to the unfolding emergency.

These are the factors in the occurrence that were found to pose a risk to the transportation system. These factors may or may not have been causal or contributing to the occurrence but could pose a risk in the future:

- If the maximum weight of catch for safe loading of a fishing vessel is not readily available and shared among all crew members on board, there is a risk that the vessel will be overloaded and that its stability will be compromised.
- If operational decisions are made according to a perception of vessel safety rather than validated limits, there is a risk that the vessel will be operated in a manner that may compromise its safety.
- If personnel working on board a vessel do not regularly practise responding to emergencies with drills that include realistic scenarios, there is a risk that they will not respond effectively in an actual emergency.
- If personnel on board a vessel have not been familiarized with activating the vessel's distress alerting devices, the personnel might not be able to transmit an emergency signal, creating a risk that the emergency response will not be timely.
- If there are gaps in actual radio coverage from coast stations in sea area A1, there is a risk that mariners will not be able to communicate with those stations, which could impede or delay response in an emergency.
- If the regulatory oversight of radio equipment installation and maintenance is ineffective, equipment deficiencies can remain unidentified, creating a risk that emergency communications will be impacted.
- If the complement of a fishing vessel works without sufficient periods of rest, there is a risk that they will not be able to respond effectively to an emergency.

These findings resolve an issue of controversy, identify a mitigating circumstance, or acknowledge a noteworthy element of the occurrence:

- At the time of the occurrence, the vessel's safety inspection certificate issued by Transport Canada was expired. The certificate was not valid when the Department of Fisheries and Oceans granted an experimental fishing licence to the vessel.
- The master had been medically restricted from performing watchkeeping duties. However, during the occurrence voyage, he kept watch alone during the day and at night when the Marine Personnel Regulations required a certified watchkeeper and 1 other crew member to be on watch during periods of darkness.

In a news release, TSB added commercial fishing continues to rank among the most dangerous occupations in Canada and remains on the TSB's Watchlist due to persistent risks. This accident reflects long-standing safety issues in the industry and reinforces the need for improved day-to-day safety practices, such as operating within validated stability limits, ensuring ready access to lifesaving equipment, and conducting realistic drills to improve survivability when things go wrong at sea.

BoatUS Foundation launches first national database to track abandoned boats across US

The non-profit BoatUS Foundation for Boating Safety and Clean Water has developed a database that will identify and track the locations of abandoned and derelict vessels (ADVs) across the US, its territories and freely associated.

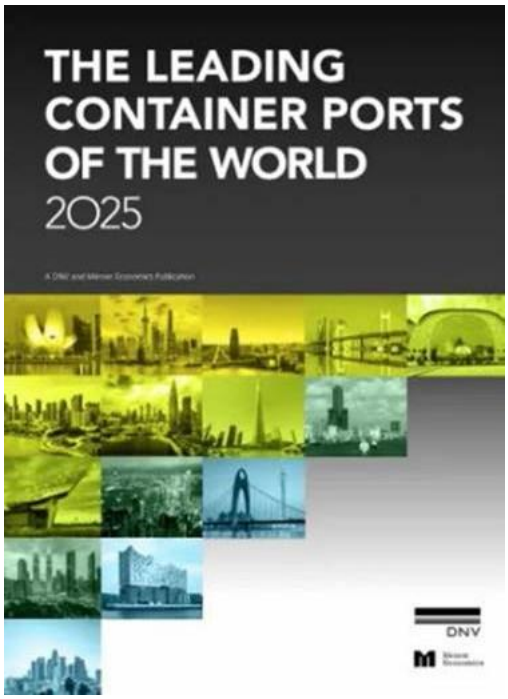
Created in partnership with the National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program, this national database will allow visitors to report abandoned and derelict vessels on their coastlines, allowing the issue to be better understood on a national scale with the support of the public. Eventually, this database will be able to track the impacts of removal and prevention efforts by showing how the number of ADVs across the country may one day decrease.

Abandoned and derelict vessels can crush or smother sensitive plants and corals, leach fuel and other pollutants into the water, threaten safe navigation, and contribute to economic losses. Removing ADVs is a costly effort, often averaging more than $24,000 to remove a single boat, according to BoatUS.

BoatUS Foundation Director of Outreach Alanna Keating said, "When we finally understand the scope of the problem, communities all over the country will be better able to remove abandoned and derelict vessels on their local coastlines.

"With the information the database provides, they will be able to know exactly where they need to dedicate resources, whether that be towards removing vessels or preventing them from becoming abandoned in the first place. This database is just one part of our critical work that could help make ADVs a thing of the past."

Along with the database, the BoatUS Foundation awarded grants this year to support ADV removal efforts across Alaska, Guam, Louisiana, Maine, North Carolina, Oregon, the U.S. Virgin Islands and Washington.



DNV highlights leading container ports of the world

Singapore is the world's leading container port according to a new report published by DNV and Menon Economics.

The first edition of the Leading Container Ports of the World (LCP) report also showed that Shanghai and Ningbo-Zhoushan in second and third place, with Rotterdam and Busan completing the global top five.

Maritime transport carries close to 90 percent of global trade by volume, and container ports alone handle more than 80 percent of non-bulk merchandise. Today, these ports are undergoing a profound transformation, driven by rising trade flows, rapid advances in technology, and mounting pressure to meet climate targets.

Against this backdrop, DNV and Menon Economics have introduced the industry's fi global container port ranking. The LCP report compares leading practices of 160 ports against 35 indicators grouped into fi pillars: enablers, connectivity and customer value, productivity, sustainability, and overall impact. These indicators are based on objective data, such as throughput volumes, berth productivity, emissions per Twenty-foot Equivalent Unit (TEU), and alternative fuel availability, and are complemented by expert assessments from leading shipping stakeholders. The LCP ranking complements other reports, such as the Leading Maritime Cities of the World (LMC) report, by providing a focused assessment of container port performance.

Knut Ørbeck-Nilssen, CEO Maritime at DNV, commented, "Container ports quietly underpin much of the global economy. Every year, they move more than 930 million TEUs, supporting the flow of goods that keep businesses running and communities supplied. As global trade patterns shift and the industry faces new pressures, ports that are able to adapt, communicate clear strategies, and invest in future-proofing their operations will continue to lead and set the pace for the sector's evolution. This report aims to provide trusted insights that help ports and stakeholders navigate these changes with confidence."

The report recommends that ports invest in scalable infrastructure, accelerate digitalization, and lead on sustainability while maintaining strong customer relationships and building resilience against disruptions. Clear strategic planning and transparent communication are essential for ports aiming to secure long-term competitiveness.

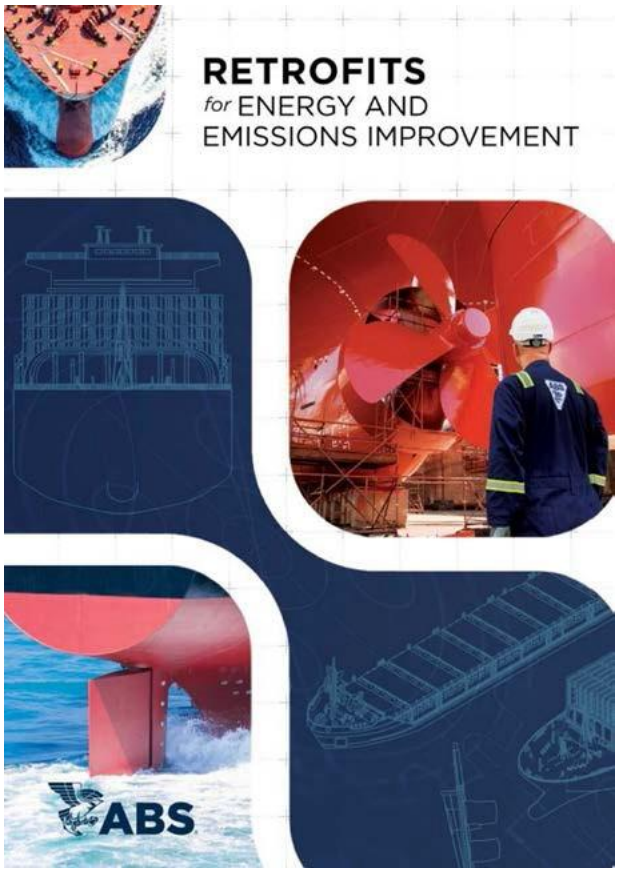
Port Authorities play a critical role in shaping the future of container ports. Forward-thinking strategies that prioritize productivity, service quality, digitalization and sustainability are essential for long-term competitiveness. While some ports did not rank among the top due to overall performance indicators, many port authorities across regions demonstrate a forward leaning mindset and are actively investing to close these gaps, a trend clearly reflected in the report.

Dr. Erik Jakobsen, Partner and Chair of Menon Economics, added: "The top-performing container ports are both expanding capacity and rethinking how technology shapes daily operations. We see ports where automation and digital tools are woven into every process, from vessel scheduling to cargo handling. Investments in cleaner energy and integrated transport links are also making a difference, helping ports operate more efficiently and adapt to new demands."

Global top five container ports:
1. Singapore 2. Shanghai (China) 3. Ningbo-Zhoushan (China) 4. Busan (South Korea) 5. Rotterdam (Europe)

ABS releases report

on retrofitting for alternative fuel use and energy efficiency



ABS' new Retrofits for Energy and Emissions Improvement publication provides insights into best practices, incentive scenarios, and a market update on energy efficiency technologies (EETs) and retrofits.

The report identifi the classifi and statutory requirements shipowners and managers must understand before considering retrofi vessels to use alternative fuels and energy effi technologies (EETs).

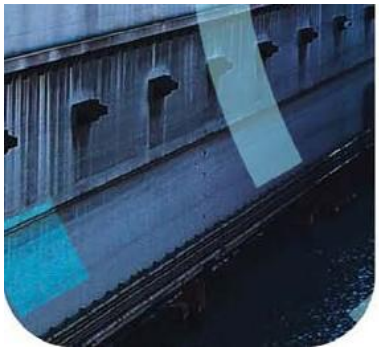
This comes in light of regulations from the International Maritime Organization (IMO) and the European Union (EU) are shaping how the maritime industry tackles greenhouse gas emissions.

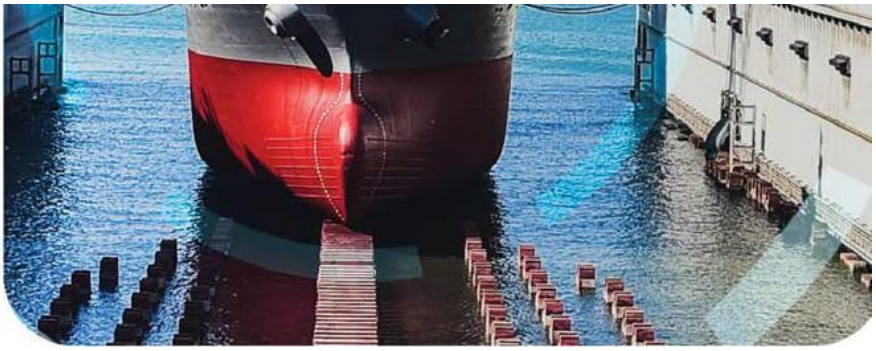
Retrofi for alternative fuels and EETs off the maritime industry a crucial pathway to extending the life of existing and near-term newbuild vessels in the face of increasingly stringent regulations.

This publication provides the industry with a clear understanding of classifi and statutory requirements for retrofi explores options for improving effi and off best practices and market insights to support informed decision-making.

When considering retrofi shipowners must:

- Never compromise on safety.
- Understand the applicability of current regulations and those coming into force.
- Assess the present performance of shipboard systems and identify energy savings from specific improvements based on a vessel's operational characteristics.
- Predict the savings of additional EETs for anticipated operating conditions through modeling and simulation (route and AIS-based simulations).
- Identify and address potential hazards for the vessel and crew through HAZID and HAZOP workshops.
- Evaluate the savings based on in-service measurements through vessel performance modeling and analysis.
- Optimize the energy demand by deploying mathematical techniques ranging from CFD (e.g., bulbous bow optimization study) to non-heuristic optimization algorithms (e.g., voyage optimization study).





Gas carrier's blackout due to generator issue in port Brisbane,

A gas tanker had just left its berth at the Port of Brisbane when it lost propulsion for two minutes as two of its three electrical generators were not properly configured, according to an Australian Transport Safety Bureau (ATSB) final report.

What happened

At 1100 local time on 15 March 2025, Gaschem Homer was departing for sea from its berth in the port of Brisbane, Queensland, under the conduct of a harbour pilot. At 1104, while the ship was being turned towards the port's entrance, it experienced an electrical blackout, resulting in the total loss of propulsion and steering control. About two minutes later, the crew restored the electrical power. The incident did not result in damage or injury.

What the ATSB found

The ATSB found that, during departure preparations, the crew had forgotten to switch two of the ship's three generators to automatic mode. As a result, the ship's power management system was unable to automatically distribute electrical load across all generators, restricting generating capacity to only one generator. The increased power demand when the bow thruster was operated during departure manoeuvring could not be supported by the single generator and it tripped on overload, causing the blackout.

The investigation also identified a safety issue relating to the shipboard safety management system, which had not identified operational risks associated with Gaschem Homer's electrical installations and implemented effective controls. Procedures were generic and non-informative and there were no other controls in place to prevent such operational lapses resulting in a power failure.

What has been done as a result

The ship manager, Hartmann Gas Carriers, risk-assessed potential failure modes associated with its ships' power management systems and established additional controls to prevent total power failures. The shipboard safety management system(s) has been amended to include guidelines for blackout prevention and procedures requiring generators to be set for automatic load sharing before manoeuvring.

Pre-departure and arrival checklists for the engine room and bridge were amended to include verification of generator mode status. To supplement these updates, a power demand matrix has been developed to specify the minimum number of generators required to be online for each operational mode.

In addition, the company has introduced targeted training for watchkeeping engineers on critical power management and monitoring tasks, along with enhanced bridge and engine room information exchange protocols, as further controls against power failures.

The ATSB considers that the safety action adequately addresses the safety issue.

Safety message

This incident highlights the importance of ensuring all risks associated with shipboard operations and critical equipment are identified, assessed and effectively controlled. The safety management system should encompass up-to-date and useable ship-specific procedures, as well as any additional technical controls if procedural barriers alone are insufficient to mitigate risk.

TSB Canada highlights importance of safeguards to prevent accidental lifeboat releases

The free-fall lifeboat stowed on the launching structure and the lifeboat access platform. Source: TSB

The Transportation Safety Board of Canada (TSB) is urging stronger safety measures after a crew member was seriously injured aboard the bulk carrier Golden Zhejiang's lifeboat in 2023. The TSB highlights the need for proper procedures for risk assessments, equipment-specific training, and a safety management system supported by a mature safety culture with a trusted process for communication between crew and shore personnel.

What happened

On September 2, 2023, the second and fourth engineers were carrying out a weekly safety check of the Golden Zhejiang's free-fall lifeboat, while the vessel was anchored in Trincomali Channel, British Columbia. During the check, the second engineer encountered an issue while testing the steering from inside the lifeboat and attempted to troubleshoot the problem. In the process, the main release mechanism was inadvertently activated. The sudden drop caused the securing cables to fail, sending the lifeboat into the water with the second engineer inside. As he was not secured in a seat, the second engineer sustained serious injuries.

Findings

These are conditions, acts or safety deficiencies that were found to have caused or contributed to this occurrence:

- The Golden Zhejiang's safety management system did not explicitly require a risk assessment before entering the free-fall lifeboat to conduct a safety check. Consequently, the fourth engineer and the second engineer began the weekly safety check without assessing the risks of the boat inadvertently being released.
- The cables securing the lifeboat to the launching structure were not engineered and certified as load-bearing cables. Consequently, they were not safe for the intended use.
- When the lifeboat was inadvertently released, the securing cables failed, causing the lifeboat to fall into the water with the second engineer inside. The second engineer was not secured in a seat and was seriously injured during the impact.

Following the incident, the vessel operator, Columbia Shipmanagement Ltd., implemented safety enhancements, including updated lifeboat labelling, revised familiarization checklists and work instructions, and installation of securing turnbuckles. This occurrence was also used as a case study in crew training seminars, and the scope of ship visits by shore management personnel was extended to include crew awareness of free-fall lifeboat safety.

Two persons overboard from the standby safety vessel Vos Tracker during maintenance of the fast rescue craft

What happened

At 0800 on 25 August 2025, the deck crew of the offshore emergency rescue and response vessel Vos Tracker conducted a toolbox talk to discuss the day's maintenance tasks. Planned work included the replacement of the lifting strops for the two fast rescue craft (FRC). The weather was good, with a low swell and light winds from the south-south-east.

Although the planned work was initially scheduled for the afternoon, the crew decided to change the FRC lifting strops before midday. A second toolbox talk was held to discuss the strop change. By 1125, the starboard side FRC strop change was completed without issue.

Coxswain A then boarded the port side FRC and disconnected the lifting stops after the bosun had lowered the davit hook. The FRC was now secured to its cradle only by two bowsing in pennants forward and aft. Coxswain A then progressed changing the aft lifting strops.

At about 1125, coxswain B boarded the port FRC to change the forward strops. Coxswain B found that the lifting strop's shackle pin was tight and moved aft and outboard in the FRC to collect some tools. In doing so, the combined weight of the two coxswains unbalanced the FRC on its narrow cradle. The FRC tilted, then slipped overboard at 1135. The carabiner connecting the aft bowsing in pennant parted as the FRC skewed and fell. The coxswains jumped into the water and their personal flotation devices automatically inflated. Both narrowly missed being struck by the FRC as it hit the water.

The bosun immediately sounded the general alarm, and the master announced "Man overboard" over Vos Tracker's public address system. The crew mustered, lifebuoys were deployed and the starboard side FRC was launched. Meanwhile, coxswain B climbed aboard the port side FRC and it was brought alongside Vos Tracker by the vessel's crew. By 1144, coxswain A had been recovered from the water into the starboard FRC. Both FRCs were subsequently recovered. The port side FRC had sustained hull damage that required a replacement when Vos Tracker berthed 2 days later. Both coxswains were unharmed in the accident.

Findings

- The FRC cradle had a narrow outboard arm, which did not adequately support the FRC when there was the combined weight of two people standing on the outboard side of the FRC.
- The FRCs were unsecured once the davit hook lifting strops were removed.
- No risk assessment was in place for the lifting strop change and no permit to work for working at height had been raised as required by the vessel's safety management system.

- Neither coxswain A nor coxswain B was wearing a safety harness and either a fall arrest or fall restraint tether while working in the FRC.
- The toolbox talks for the FRC strop change were ineffective, and evidence suggested that these were a compliance exercise.
- The successful change of the strops on the starboard side FRC, and previous strop changes in the same manner, had led the crew to believe that their methodology was safe.
- There was no effective supervision of the task due to distraction and hurried execution to complete the work before the watch changeover at midday.

Actions taken

The operator, Vroon Offshore Services Limited, has:

- introduced a procedure and task-specific risk assessment for FRC strop changes.
- updated its toolbox talk record card.
- reviewed and upgraded the FRC securing arrangements on Vos Tracker and sister vessels.
- issued a fleetwide safety alert.
- instigated a safety campaign across its fleet of 30 vessels.

Surge in EV transportation exposes gaps in maritime safety rules procurement

Industry experts have said the rapid rise in electric vehicle shipments is putting new pressure on the maritime industry, says Steam Marine Technical.

High-profile shipboard fires involving EVs, such as those on the Felicity Ace, Morning Midas and the Freemantle Highway, have highlighted the dangers and significant risks. While lithium-ion battery fires and thermal runaway events aren't always the initial cause, they significantly escalate onboard fires when EVs are involved, yet current International Maritime Organization (IMO) regulations don't adequately address this risk. Whilst the IMO develops updated guidelines, comprehensive regulations specific to EV transport aren't expected until at least 2028.

In the meantime, shipping companies are moving ahead on their own. Many are installing specialised fire suppression systems, boosting crew training, and working collaboratively to share best practices.

At a recent seminar hosted by Stream Marine Technical, John Garner, Managing Director of JG Maritime Solutions and Chairman of the Interferry Regulatory Committee said, "The challenge lies in bridging the gap through proactive compliance, operational readiness, and crew competency. We're seeing companies take the initiative, but it shouldn't take a decade for regulations to catch up."

As EV transport reshapes maritime operations, operators are pushing for faster and more productive coordination between regulators, vessel owners, and manufacturers. Stuart Reid, Marine Superintendent at Serco Northlink Ferries said, "For us, it starts at booking. We screen EVs, flag them for our teams, and invest in the right tools and training. Sharing what we learn with other operators has become standard because guidance from the top is still evolving."

Until new standards are in place, collaboration and knowledge-sharing are the front line of defence. Panellists emphasised that this is more than a compliance issue, it's a shared responsibility.

"Training is absolutely key," said Craig Smith, Expert Consultant and Instructor at **Stream Marine Technical**. "Crews need to spot early signs of battery fires and use the latest suppression technology. There's no silver bullet, but scenario-based drills and new procedures are already making a real impact."

With regulation lagging behind technology, the message from experts is clear: stay alert, stay prepared, and help shape the future of maritime safety before the next crisis hits.

INCIDENT CASE STUDY No.29

BSafe case study: Benzene vapour death following unauthorised tank entry

Britannia P&I Club have cautioned its members on the dangers of entering an enclosed space after a sailor died in the cargo hold of a tanker.

Background
An 8,270 gt oil/chemical tanker had discharged benzene on its previous voyage and was proceeding in ballast towards Korea to load its next nominated cargo. The ship had completed discharge at Jiangyin, China and departed for Yeosu, Korea. The planned sequence between voyages included a full cycle of gas freeing and cleaning of cargo tanks in preparation for the next chemical cargo.

The final part of the cleaning process required physical tank entry to conduct manual wiping or "mopping", of any residual wash water. As is standard, tank entry required an enclosed space entry permit to be issued by the master. This company's policy was to mark the hatch cover of the space to show that a permit had been issued, and it was now safe for entry.

Some of the cargo tanks had previously carried benzene. Although the tanks had been rinsed and ventilated for gas freeing, residue benzene vapours remained a serious hazard. Benzene is highly volatile and toxic; in a confined or poorly ventilated environment, inhalation can rapidly cause dizziness, incapacitation, collapse, respiratory failure or fatal exposure.

What happened
On the morning of the incident, the ship was several hours into the passage. Preparations were underway for the "mopping" stage of tank cleaning. This stage typically occurs only after gas freeing has progressed sufficiently and the tank atmosphere has been gas tested and verified safe.

At around 1010 hrs the chief officer (C/O) instructed four deck ratings (bosun, able seaman, and two ordinary seamen) to bring mops and rags to the main deck in preparation for mopping operations which were planned to take place inside the washed cargo tanks. At this point, the "enclosed space entry permit" process had not yet been initiated, and no confirmation had been made that the tank atmosphere was safe. It is understood that the C/O had noted a strong smell of cargo residue from within the cargo tanks at deck level and had therefore felt it unnecessary to test the atmosphere as it was clearly still unsafe.

Shortly afterwards, one of the ordinary seamen (OS) appears to have acted ahead of the authorised sequence. They entered the cargo tank through an open hatch, before the atmosphere had been tested and confirmed safe. It was later discovered that they were not carrying a portable multi-gas detector and was instead wearing a filter-type mask, presumably as "protection". The filter-type mask worn offered no protection in an oxygen-deficient space and could not protect against residual benzene or other toxic vapours that might still linger inside the tank.

Around 1035 hrs, the bosun, who was walking across the deck, looked down into cargo tank 10 Port. Seeing the OS lying collapsed on the tank bottom, the bosun immediately raised the alarm. The bridge informed the master, and shipboard emergency response commenced.

The C/O and second officer donned Self Contained Breathing Apparatus (SCBA) and entered the tank to recover the OS. They fitted the OS with an Emergency Escape Breathing Device (EEBD) but he remained unresponsive. The OS was brought up to deck level on a stretcher and CPR was initiated, with medical support sought from the shore rescue authorities. Despite prolonged resuscitation efforts, the OS did not regain consciousness and was later declared deceased upon hand-over ashore.

The subsequent autopsy identified traumatic injury consistent with a fall onto a hard surface, including cervical spinal fracture – meaning the atmosphere incapacitated the OS before they had reached the bottom. Benzene was detected in the OS's cardiovascular system. Based on this, and the fact that the tank bottom was only accessible by ladder, it was determined that the OS had entered the tank of their own volition, inhaled residual benzene vapours, collapsed inside the tank and fell, sustaining fatal injury. The tank atmosphere had not been tested and confirmed safe prior to entry, and the filter-type mask worn by the OS was not suitable or approved for protection against benzene vapours or oxygen-deficient atmospheres.

This event developed rapidly and at a point where the tank had not yet been formally cleared for entry. Until an enclosed space permit is issued, a cargo tank must be treated as hazardous, regardless of whether the hatch is open, a fan is running, or the tank has been recently washed.

The purpose of the permit process is to confirm, through measured data and recorded gas testing, that it is safe to proceed. Tanks may look harmless from above yet can still harbour atmospheres that can quickly incapacitate or kill without warning. Therefore, visual appearance from the deck level cannot be relied upon; the atmosphere within a tank can remain dangerous even when it seems inactive or benign.

Source: ABS

ABS and Siemens to advance digitalization in shipbuilding

ABS and Siemens Digital Industries Software (DISW) have signed a memorandum of understanding to accelerate the digital transformation of maritime classification processes across ship design and

construction. The collaboration will also advance product lifecycle management (PLM) technology to enhance efficiency, data integrity and regulatory compliance throughout the vessel life cycle.

The MOU establishes a framework for both organizations to collaborate on projects such as Class Rule application during 3D design, model-based verification and digital twin integration, secure data exchange between ship designers and Class along with joint research projects and workshops.

The agreement will leverage the ABS PLM platform, ABS Freedom™, and Siemens DISW's Xcelerator platform to align with maritime regulations, specifically targeting its digital twin and simulation capabilities for compliance and classification in the marine sector.

"As a global leader in maritime classification services, ABS is proud to join forces with Siemens, a world leader in AI-powered PLM software, to develop collaborative interfaces that use enhanced data-driven tools for design decision making and digitally streamline our Class operations," said Patrick Ryan, ABS Senior Vice President and Chief Technology Officer.

Joe Bohman, Executive Vice President, PLM Products, Siemens Digital Industries Software said, "As the classification process is an integral part of ship design and building workflow, we understand the high importance of it. That is why we are delighted to sign an MOU with ABS to explore and establish a strategic collaboration aimed at accelerating and adapting the digital transformation of maritime classification processes."