

# British Tugowners Association

## 23rd Annual Safety Seminar

6 November 2025



The **2025 BTA Annual Safety Seminar** was held on Thursday, 6 November, at the Leonardo Royal Hotel in Southampton, marking another milestone in the Association's commitment to operational safety. The event welcomed over 90 attendees, including tug masters, pilots, marine superintendents, P&I clubs, members of the MCA Marine Accident Investigation Branch, lawyers, workboat crew, harbour masters and port operators.

This year's theme: **Operational Safety in the Port Ecosystem** offered valuable insights into the key contributors to port safety, ongoing industry challenges, emerging incident trends, and practical approaches to training, safe access, manual handling, self-mooring, and crew competency.

The seminar also marked the official launch of two key guidance documents: the **Fire Fighting Action Cards** and the joint BTA/WA **Gog Ropes Industry Advice** to accompany the major Firefighting Guide released in May. Developed through extensive collaboration, these resources consolidate decades of experience to provide clear, practical guidance on addressing persistent safety challenges within the towage sector and the wider port ecosystem. Freely available on the BTA website, members are encouraged to make use of these documents.


With sincere thanks to our sponsors for the day:



**Alasdair Smith, BTA Technical Chairman**, opened the proceedings by reaffirming the cooperative spirit that underpins these meetings. He noted that the seminar offers a unique opportunity for competitors to engage in open dialogue on shared challenges. Alasdair stressed that safety remains the cornerstone of towage operations and highlighted candid conversation as a key driver of progress.

Human error was identified as an all-too-often used catch-all for incidents. And while not incorrect, Alasdair challenged delegates to look beyond to establish the underlying root cause of the incident. He encouraged participants to examine underlying factors behind mistakes to develop effective tools for improving safety culture.

He also shared updates from the Technical Committee meeting held the previous day, including progress on the Fire Fighting Support Emergency Action Card. Alasdair reaffirmed that the guidebook is a collaborative effort and invited comments and critique to inform future iterations.

FIRE FIGHTING SUPPORT EMERGENCY ACTION CARD		HAZARDS OF SPECIFIC CARGOS AND FUELS	
<p><b>Golden Rule</b></p> <p><b>Don't Rush In</b></p>  <p>www.britishtug.com</p> <p>BTA</p>	<p><b>Liquefied Gases (LNG, LPG, Hydrogen)</b></p> <p><b>Main Hazards</b></p> <ul style="list-style-type: none"> <li>Vapour Cloud: An unignited release forms a vapour cloud.</li> <li>LNG vapour starts dense but gets lighter than air as it warms.</li> <li>LPG vapour is heavier than air and stays low.</li> <li>Hydrogen is extremely light and disperses rapidly upwards.</li> <li>Flammability: All are highly flammable. Hydrogen requires very low energy to ignite and burns with a nearly invisible flame.</li> <li>BLEVE: A Boiling Liquid Expanding Vapour Explosion can occur if a pressurized container is heated by an external fire, causing a catastrophic rupture.</li> <li>Cryogenic Temperatures: Extreme cold from LNG (-162°C) or liquid hydrogen can cause embrittlement fracturing standard steel structures.</li> </ul> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>Extensive boundary cooling of the surrounding area.</li> </ul> <p><b>Toxic Fuels (Ammonia &amp; Methanol)</b></p> <p><b>Methanol</b></p> <ul style="list-style-type: none"> <li>Toxic: Harmful through inhalation, ingestion, and skin absorption.</li> <li>Invisible Flame: Burns with a nearly invisible blue flame and little smoke.</li> <li>Firefighting: AFFF is recommended. Methanol can burn when highly diluted, only use water for boundary cooling.</li> </ul> <p><b>Ammonia</b></p> <ul style="list-style-type: none"> <li>HIGHLY TOXIC: Vapours are toxic to humans and marine life. Vapour is denser than air and will sink and pool on deck or water surface.</li> <li>Difficult to ignite. Primary risk is toxicity, not the fire.</li> <li>Firefighting: Water is the most effective method to extinguish, however applying large quantities of water to a liquid ammonia pool will increase the evaporation rate, making the fire larger.</li> </ul> <p><b>Safety First!</b></p> <p>Specialist PPE, such as chemical suits with SCBA, and gas detectors are essential. Stay upwind. Do not enter a hazardous vapour zone without them.</p>	<p><b>Lithium-Ion Batteries</b></p> <p><b>Key Hazards:</b></p> <ul style="list-style-type: none"> <li>Vapour Cloud Explosion: Thermal runaway generates large volumes of flammable and toxic gases that can build to their lower explosive limit and explode within a space.</li> <li>Extremely Difficult to Extinguish: The fire is a chemical chain reaction. The most effective known method is often prolonged boundary cooling until the fire burns itself out.</li> <li>Reignition Risk: Batteries can reignite unexpectedly, even days after the initial fire appears to be out, due to residual chemical energy.</li> </ul> <p><b>Response:</b></p> <p>Maintain a safe distance due to explosion risk. Stay upwind. Apply continuous, prolonged boundary cooling with amounts of water, be mindful of the casualty's stability.</p>	<p><b>POINTS TO REMEMBER</b></p> <p><b>Do we have a duty to provide assistance? Are we insured?</b></p> <p>Know the difference between <b>Rescue &amp; Salvage</b> – it has major implications for our company.</p> <p><b>Saving Life (Rescue):</b></p> <ul style="list-style-type: none"> <li>Legal Duty: Under Regulation V/33 of SOLAS Convention, a master is legally bound to render assistance to any person in danger of being lost at sea, so long as it can be done without serious danger to their own vessel and crew.</li> <li>Insurance: Assisting to save life is often covered under a tug's standard P&amp;I insurance.</li> </ul> <p><b>Saving Property &amp; Environment (Salvage):</b></p> <ul style="list-style-type: none"> <li>Voluntary Act: Engaging to protect property (the vessel, its cargo) or the environment is considered a salvage operation. This is a voluntary act, not a pre-existing legal duty.</li> <li>Insurance: This requires specialist insurance cover for professional salvage activity. Standard P&amp;I does not cover this.</li> <li>Payment: Remuneration is typically based on a "no cure, no pay" salvage claim, often under a contract like the Lloyd's Open Form (LOF).</li> </ul>

**Bill Evans, of Marine Accident Investigation Branch**, drew on his more than 40 years of naval and harbour master experience to underline the complexity of port operations, an environment where overlapping regulations and multiple stakeholders create unique safety challenges. He stressed the vital role of towage and pilotage in reducing risk and noted an increase in incidents in 2023. Risks are shared across tugs, berth owners, and harbour authorities, making alignment of safety procedures essential. Bill cited routine hazards, mooring operations, towline failures, and gangway access, as frequent sources of serious accidents, referencing 265 mooring incidents in 2024 across all UK marine. Bill made the following recommendations, encouraging attendees to contribute actively to enhance safety in the port environment:

**Learn from near-misses and less serious accidents**

**Maintain risk-alignment with other actors in the port environment**

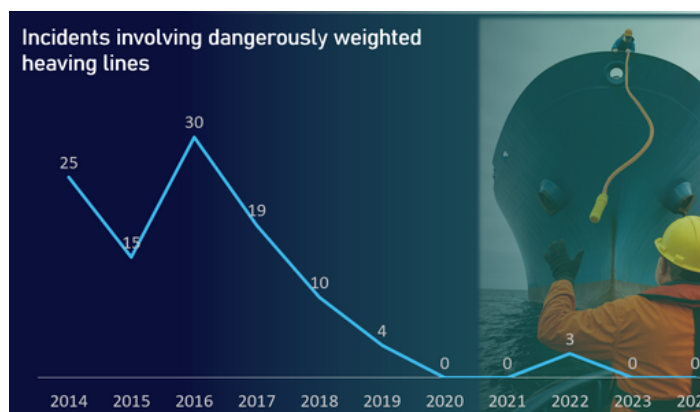
**Train your people to follow procedures, monitor their compliance**

## THE BTA Annual Statistical Survey

**James Evans, the BTA Vice-Technical Chair**, presented annual safety statistics from member reports, a longstanding shared collaboration emphasising transparency. Data showed, exposure hours per tug have steadily decreased, while incident rates relative to hours also declined, signalling positive progress. Near-miss reports, however, have risen, which may indicate improved reporting or emerging risks. Seasonal trends persist, with higher incident rates around summer, and mobilising operations remained more incident-prone than demobilising.

Inadequate tools and equipment remained the leading root cause of incidents, alongside human error and mechanical failure, illustrating the 80-20 rule, where 80% of problems stem from 20% of causes. Heaving lines were highlighted as a recurring hazard, mostly damaging equipment and near misses, but not a source of injury in 2023 and 2024.

James urged continued vigilance despite positive trends, stressing that consistent reporting standards are essential to sustain progress. During questions, delegates discussed clearer categorisation of machinery-related incidents and how data should inform practical safety improvements, particularly in tug-pilot communication. It was further challenged that despite excellent reporting and promotion that the BTA should work to address the 'so what' question of this analysis.



## Self-Mooring An Owner's Journey

**Scott Baker, from Svitzer** presented on self-mooring initiatives, focusing on recent collaboration between the BTA and PSS to improve standards of safe mooring and level access. He outlined how guidance evolved through the development of MGN 648 Code of Safe Working Practices for Seafarers, alongside to SIP005-Guidance on Mooring which was integrated into COSWP, reflecting a ground-up approach to safer mooring practices and introduce a hierarchy of safe access.

Central to the presentation was the principle of eliminating a common source of incidents, the need for crew to leave the vessel during mooring and unmooring. Drawing on a review of more than 600 berths. Scott showcased practical solutions, including a Svitzer-designed crane-assisted system that simplified operations and reduced exposure to risk. He noted that many berths can adopt these measures with minimal modification; emphasising Svitzer's commitment to working with other operators to integrate the system more widely. He also recognised that having a permanent berth is essential and highlighted the need for centred, collaborative engagement between operators and ports to achieve this.

Key messages included the importance of consistent application of guidance, learning from past incidents, and resisting complacency in routine practices. Scott closed by inviting members to engage further in refining mooring and access standards, reinforcing that collaboration remains essential to advancing safety.





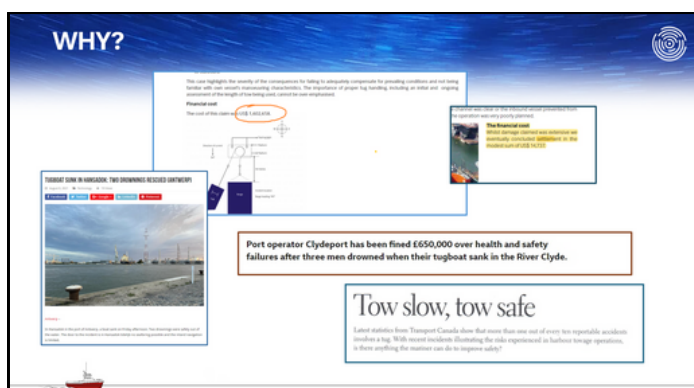
## Port Safety: A joined-up approach to Managing Risk

**Jen Maddison, of Port Skills and Safety**, stressed that ports are complex, multi-user environments where risks and responsibilities are shared. She outlined the PSS strategy built on four pillars: resources, collaboration, data, and innovation, developed with member input and HSE guidance on mooring, egress, buoyancy, and cargo listing.

Jen highlighted challenges in making guidance practical for frontline workers and cultural barriers such as commercial pressures and job-stopping authority. She noted the importance of near-miss reporting and shared tools for compliance checks and member forums. Technology is emerging as a key enabler, with AI and CCTV used to monitor PPE compliance and VR training offering more engaging alternatives to passive methods. She closed by emphasising collaboration and turning data into actionable insights.

**Wencke Boerrigter, of Polestar Publishing**, highlighted inconsistent training as a major safety risk, often linked to incidents and financial penalties. She stressed the need for clear standards and structured programs, especially as tug crews operate globally under varied practices and amid a loss of experienced personnel.

E-learning was presented as a flexible, cost-effective foundation for training, offering interactive content and real-time performance data to improve retention and enable targeted support. While not a complete solution, it paves the way for VR-based training, which provides immersive, scenario-driven learning far more effective than passive methods.



## Deck Safety Courses – Shore-Based Staff

**Hazel Bennett of Western Maritime Training** shared her experience developing training programs for local maritime companies. A program developed in-response to a rope incident occurring onboard a vessel, involving non-deck staff.

Hazel highlighted the importance of working with five partner companies, emphasising the value of external engagement in risk assessment and safety culture across diverse port environments. She showcased bespoke training tailored to unique operational contexts, combining introductory seminars with direct trainee engagement to ensure consistent messaging and a broader understanding of port safety.

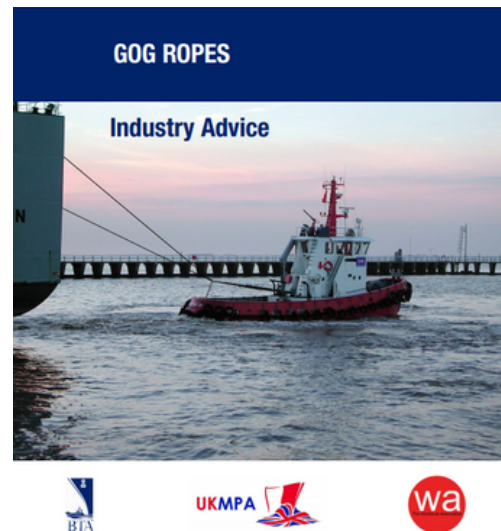


Bennett noted that independent courses support a company's Duty of Care and can form part of its Safety Management System (SMS) while remaining outside commercial pressures. This independence creates space for trainees to ask difficult questions, challenge practices, and strengthen understanding of security procedures.

## BTA/WA Joint Gog Rope Use Advice

Developed in response to MAIB's recommendation, Jeffery Bikes incident, **Gareth Bonner from Svitzer introduced** new guidance developed by the BTA and Workboat Association with input from experienced towing professionals. The initiative aims to consolidate best practice for conventional towage and preserve knowledge before it is lost to turnover or retirement.

The guide addresses key safety issues such as girting risks, gog rope systems, and correct eye location and certification. It includes calculation tools to assess hazards and reinforces the principle that "speed on a slack line kills."



Communication between pilots and tug masters was highlighted as critical to preventing rope-related incidents. Discussion prompts and scenario-based questions encourage proactive safety approaches and help standardise practices nationally with design support credited to Polestar Publishing.

## Gog Rope Use Simulations

**Nick Jeffery, Past BTA Chairman** closed the session by reflecting on recurring girting incidents highlighted in MAIB reports and the decade-long effort to develop practical guidance and training tools. He introduced tug simulation models, created with ABP, Svitzer, and industry experts, to demonstrate critical safety principles without exposing crews to real-world hazards.

The system uses short video scenarios to show how vessel speed and towline positioning influence risk, noting that capsizing can occur within seconds and that low speeds are inherently safer when performing convention towage. Gog rope use was emphasised as a vital safeguard when combined with proper speed management.

Jeffery emphasised that, simulation-based training offered a cost-effective way to reinforce best practices and improve decision-making under pressure. As well as conducting repeated exercises in a safe manner



## Breakout Sessions

The day explored the importance of interaction and collaboration by holding several breakout sessions, aimed to get attendees engaged and feeding into the discussions.



## Floor Responses and Inputs

Communication and Culture: Gaps between ports, pilots, and tug crews remain a major safety risk, compounded by time pressure, unclear roles, and cultural factors like complacency and commercial demands. Calls were made for simpler procedures, joint exercises, and stronger management engagement.

Mooring and Access: Complex mooring arrangements, berth variability, and practices such as double banking increase risk. Delegates stressed early planning, infrastructure investment, and improved communication to support safer handling.

Training and Manual Handling: Inconsistent standards and inadequate onboarding leave competence checks to tug masters. Rope-handling gaps and manual handling risks were noted, with recommendations for bespoke training, industry-wide standards, and proactive supervision especially for new comers to crew or contractors working on vessels.

## Panel Discussion

The day concluded with a panel discussion of safety leaders from across the port ecosystem. The panel focused on improving safety and collaboration across the port ecosystem through better communication. Key points included:

- **Communication Gaps:** Incidents often stem from unclear exchanges. Rare scenarios increase uncertainty, making early planning and dialogue essential.
- **Simulation Benefits:** Simulators improve coordination and trust. Regular use and contingency planning help align expectations.
- **Cultural Pressures:** Commercial demands and hierarchy can stifle feedback. Collaboration and positive recognition are key.
- **Infrastructure and Access:** Issues like double banking, berth variability, and aging vessels require investment and small infrastructure adjustments can significantly improve safety.
- **Training and Human Factors:** Shortages of skilled personnel, importance of train apprentices, and digital distractions were flagged. Safety systems must evolve with technology and workforce needs.

The panel closed noting that there is no single solution, continuous dialogue, learning, and proactive planning are essential for safer, more resilient operations.

## **CAST Hull Salvage and Towage**

The MCA's Head of Counter Pollution and Salvage, Stan Woznicki, provided pertinent update and awareness raising of the MCA's commercial agreement for towage assistance in emergency situations. Under the CAST agreement the Coastguard can mobilise operator tugs on the agreed schedule by contacting the tug owners. As all daily hire rates and contractual terms are known in advance this allows a quick response when a vessel is in difficulty and poses a threat to life, the environment or property.

The MCA acknowledged the capability of modern harbour tugs as often not suited for coastal/offshore salvage emergency response but welcomed the agreement as enable an asset to be on scene promptly, if only to hold the stricken vessel in position until larger assets could arrive. Stan outlined that CAST was being revalidated and despite 23 vessels being signed up for the agreement, recognised that gaps in coverage remained in some parts of the UK and encouraged greater sign up by operators.

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