MARITIME FEEDBACK

CHIRP

An independent and confidential reporting system for the Maritime industry

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When 'Routine' Becomes Risky

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Routine tasks feature heavily in this edition, and each one shows how familiar practices can hide serious risks. A navigation audit graded as "medium risk" identified multiple missing defences, which, when combined, pointed to far more serious vulnerabilities. We also feature a case in which contractors dismissed sound safety advice, highlighting how difficult it can be for junior crew to challenge authority, especially when it matters most.

One reporter narrowly avoided collapse after acetone vapour displaced oxygen in a confined space, despite following the vessel's SMS, illustrating how everyday substances can create unseen hazards when used in restrictive environments.

We also examine a pilot-ladder arrangement that concealed a serious design flaw, and an unusual report in which a remote update to a galley fridge triggered a partial electrical failure during port entry, which exposed how seemingly disconnected events can have significant safety implications.

Finally, two reports highlight how pressure influences decisions: one officer was criticised for complying with COLREGs because it affected ETA, while another Safety Officer resisted demands to permit entry to a fueltank that contravened enclosed space rules. In both cases, standing firm prevented unsafe outcomes.

These reports offer sharp lessons in vigilance, challenge, and the need to remember that 'routine' does not mean 'risk-free'.

Each of these reports came from a reader just like you, and we are very grateful to those who had the courage to report to us. We encourage you all to report anything that threatens your own or others' safety so that together, we can prevent harm.

Are you interested in becoming a CHIRP Maritime Ambassador?

CHIRP and the Nautical Institute have an established ambassador scheme to raise awareness of our incident reporting schemes and encourage the submission of incident, accident and near-miss reports.

As an ambassador you will join an international network of over 50 seafarers (see map) who also share your passion for safety, and you will quickly gain a broad knowledge of current safety issues. These are great additions to your CV and increase your employability.

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M2642

Near miss - potential poisoning and asphyxiation of a crew member using a chemical for cleaning a confined space

Initial report

I was on a vessel during an extensive refit and was responsible for cleaning and painting the engine room bilges. The main bilge sump was 6 ft deep, just enough to crouch in, and I was at the bottom, using acetone to degrease the surfaces in preparation for painting. Unbeknownst to anyone in the crew, acetone expands to over 300% of its original volume and is heavier than air. As a result, oxygen was rapidly displaced, and the vapour had nowhere to escape. I was wearing a VOC (Volatile Organic Compound) mask, in line with the company's operating procedures, so I had no way to sense what was happening. I didn't have a ventilation system set up, a body-worn gas detector, or a lookout posted. The first sign of trouble was not light-headedness or nausea, but a deep sense of 'fight or flight' in my chest. I scrambled out of the bilge sump and just caught my breath enough to call on the radio. Luckily, I escaped without needing medical treatment, but it could have been much worse. It's a lesson I've carried throughout my career.

CHIRP Comments

Bilges are enclosed spaces as defined in the Code of Safe Working Practices Section 15, MGN 659, and MSC A.1050(27). Vessels should clearly identify and record which compartments onboard are considered enclosed spaces (ES), or confined spaces (CS) and ensure this information is reflected in the SMS and risk assessments. While the reporter was following the vessel's SMS, the VOC mask used was not suitable for the hazard encountered.

This report highlights an important and often under-appreciated chemical hazard associated with routine tasks such as bilge cleaning. The reporter was working during a refit period, when ventilation arrangements and system configurations may differ from normal operations. The use of acetone in the confined geometry of a bilge sump, combined with poor ventilation and no atmospheric monitoring, created a potentially life-threatening situation. A personal oxygen meter should be worn. It is commendable that the reporter recognised the symptoms early and exited the space promptly, thereby preventing a more serious outcome.

A key learning point is that many common solvents produce vapours that can rapidly displace oxygen because they have higher vapour densities, particularly in enclosed, confined, and poorly ventilated spaces. VOC masks protect against the inhalation of certain substances but do not provide notification that oxygen depletion is occurring. Carrying gas-detection equipment is essential, not only for formally designated enclosed spaces or confined spaces but also when using oxygen-displacing chemicals in any restricted area.

Task risk assessments should explicitly consider the chemical properties of substances used, as documented in their safety data sheets, including their vapour behaviour, ventilation arrangements, and the need for atmospheric monitoring. Standard enclosed-space precautions, including portable gas detectors, effective mechanical ventilation, and a designated standby person, should always be applied. This is particularly important during refit or maintenance periods, when resources can be reduced due to additional workload.

This report also underlines the importance of crews having access to and understanding Safety Data Sheets (SDS) in the correct working language. Pre-task planning should ensure that all personnel are aware of the risks of vapour expansion and oxygen displacement, as well as the limitations of PPE.

CHIRP strongly recommends that solvent-based cleaners, such as acetone, should not be used for bilge cleaning.

Factors relating to this report

Safety Culture – The organisation had not fully identified or communicated the atmospheric risks linked to solvent cleaning during refits.

Capability – The task lacked a specific assessment that considered chemical behaviour, confined space characteristics, and required controls. Knowledge of solvent-related oxygen displacement was not part of regular training or toolbox talks.

Communication – The crewmember was isolated from the other crew, so no communication could take place.

Teamwork – No designated standby person or two-way check-in process for potentially hazardous work. The crewmember was working independently without support.

Design and engineering control – Lack of integrated ventilation/gas detection for small, confined compartments.

Local Practice – Procedures and work-as-done did not align with the real risks and relied heavily on PPE rather than higher-order controls.

Key Takeaways

You can't smell missing oxygen — so plan for the hazard you can't sense.

Regulators

This report reinforces the need to ensure that guidance on confined-space entry and hazardous-substance use, explicitly covers the oxygen-displacement risks of common solvents such as acetone. Regulatory frameworks may already mandate atmospheric testing and ventilation for enclosed-space work, but this incident shows how everyday maintenance tasks can fall outside formal definitions while presenting identical hazards. Clearer expectations around gas detection, task-specific risk assessments and solvent-handling protocols during refit periods would help close this gap.

Managers

The key takeaway is that work planning must account for both the environment and the chemical properties of the substances being used. Procedures that rely solely on PPE, without ventilation or atmospheric monitoring,

create a false sense of security. Ensuring that Safety Data Sheets are incorporated into pre-task briefings, making gas detectors readily available and verifying that confined-space precautions are applied, even in small spaces like bilge sumps, are essential steps. Refit periods require heightened vigilance because non-routine work often involves equipment isolation, restricted access and chemical hazards that may not be part of everyday operations.

Crew

The lesson is that familiarity with a product does not guarantee safety. Solvents can behave unpredictably in confined areas, and symptoms of oxygen depletion may be subtle until they become dangerous. Relying on PPE alone is not enough; ventilation, monitoring and having someone aware of the task are critical safeguards. Trusting instinct and acting early, as the reporter did, can prevent severe outcomes

M2621

Navigational audit quality

Initial report

The reporter has shared an example of a navigational audit they consider below standard and representative of the quality observed during some inspections. The findings shown below relate to the Company SMS and Bridge Procedures Guide and illustrate how auditors are recording observations. This example is shared to encourage reflection on audit quality, consistency, and whether such findings effectively support safe navigation and meaningful improvement on board.

The reporter sent the following report to CHIRP, highlighting a typical example of a navigational audit.

Navigational audits – independent inspection findings. *The findings relate specifically to the Company SMS and Bridge Procedures Guide.*

1. The passage plan and bridge logbook were in local time but the VDR was in UTC.
2. The passage plan was NOT amended to include the Anchoring Plan, creating ambiguity.
3. During anchor watch, there was no objective evidence of frequent intervals check that the ship remained securely at anchor by taking bearings of fixed navigational marks.
4. During anchorage, there was no objective evidence that both radars were in use, which impaired situational awareness.
5. Radar recordings do not support the use of parallel indexing, again impairing situational awareness.
6. Radar recordings do not support the use of radar to determine and plot the ship's position to ensure that the vessel remains secure at anchor. Another reduction of situational awareness.
7. During anchor watch, the X-band radar was switched off.

CHIRP Comments

Although each finding was recorded as a "Medium Risk" observation, their number and consistency point to a broader breakdown in anchoring watch discipline. No incident occurred, but several key defences were absent or unverifiable. We consider some of the findings to be well above "Medium Risk", and our analysis is as follows:

The findings are accurate, but there are too many passive phrases, such as "no objective evidence", which softens the operational reality. In safety-critical operations, if something cannot be demonstrated, it cannot be relied upon.

The use of mixed time standards (UTC and local time) undermines shared situational awareness and complicates decision-making during anchoring, emergencies, and incident review. The use of correct times is a fundamental requirement in bridge management, not an administrative detail.

Failure to amend the anchoring plan suggests the operation was treated as routine rather than as planned navigation. This often leads to informal watchkeeping and reduced vigilance once the anchor is down.

Across several observations, there was no verifiable evidence of effective monitoring - no visual bearings, no plotted positions, limited radar use, and one radar switched off. In effect, the vessel was anchored without reliable position awareness. An anchor watch without monitoring is not a watch – it is an assumption.

Radar redundancy is a deliberate safety feature. Switching off a radar removes or reduces early warning of anchor dragging, traffic, or unexpected movement. Radar use at anchor should be considered essential.

While each issue was assessed as medium risk in isolation, their combined effect significantly increased the likelihood of an undetected dragging anchor or a close-quarters situation. No accident occurred, but normal defences had eroded. Monitoring, documentation, and radar use are core safety controls, not optional tasks. CHIRP members expressed concerns that there was an excessive emphasis on documentation requirements rather than on real navigational performance. The advisory board wants to highlight the need for auditors to receive training in bridge behaviour, situational awareness, and anchoring practices.

Representative image. Credit: Shutterstock

Factors relating to this report

Situational Awareness – Reduced electronic verification of position likely hinders a true understanding of the vessel's location. Without standard timeframes, the team may not know what is happening in real time.

Representative image. Credit: Shutterstock

Local Practice – Not updating the plan reflects an informal practice that deviates from documented procedures.

Capability – The lack of use of available techniques suggests reduced monitoring capability. Radar should be used as part of best practice; not doing so may reflect gaps in competence.

Complacency – The decision to switch off the radar may reflect an overly relaxed attitude to risk. Routine behaviour can lead to assuming the plan does not need change or improvement.

Communications – Misaligned time references lead to misunderstandings and poor information exchange.

Distractions – Failing to maintain full situational awareness may indicate that focus is elsewhere.

Key takeaways

Regulators – Safety isn't written on paper- it's lived on the bridge

The audit demonstrates that even with modern systems and documented procedures, human factors and leadership profoundly influence outcomes. Oversight, guidance, and safety audits must address not only equipment and procedures but also crew behaviour, training, and organisational culture.

Managers – Lead with oversight, equip with knowledge, and culture follows compliance

The findings underline that leadership, supervision, and training are just as important as equipment. Ensuring procedures are enforced, crews are competent, and the safety culture is active helps prevent small lapses from becoming major risks.

Seafarers – Know your ship, trust your instruments, and do not assume- confirm

The inspection highlights the critical importance of vigilance and disciplined procedures. Always check positions, use all available instruments, and ensure your passage plan reflects reality. Your awareness and adherence to procedures are the frontline defence against incidents.

M2700

Standing firm in the face of pressure from authority

Initial report

The master instructed me to issue a Permit to Work (PTW) for the ETO to enter a fuel tank while the vessel was at sea to repair an underwater light.

A risk assessment was carried out, which confirmed that it was not possible to fully remove the fuel or ventilate the space to safe levels. On this basis, the task was rejected.

Despite this, the master insisted the work should proceed. I refused to issue the PTW, as the request was contrary to COSWP and established guidance on enclosed space entry. The master stated that I had no authority to refuse, despite my role as the vessel's Safety Officer.

I stuck to my original decision, and the work did not take place.

CHIRP Comments

This report highlights a maintenance situation in which established safety barriers functioned as intended. The outcome was achieved, not by chance, but through the

exemplary actions of the vessel's Safety Officer, who correctly applied the safety management system and upheld the permit-to-work (PTW) process in the face of pressure.

The proposed work involved entry into a fuel tank while the vessel was at sea. The Safety Officer correctly identified that the tank could not be fully drained or adequately ventilated, and that the conditions did not meet the requirements of COSWP or accepted enclosed-space entry guidance. On this basis, the Permit to Work was refused, and the task did not proceed. CHIRP considers this to be an appropriate, proportionate, and professionally sound safety decision.

Of concern, however, is the apparent challenge to both the PTW process and the Safety Officer's authority. The PTW system is intended to serve as a formal safety barrier, particularly for high-risk activities such as entering enclosed spaces. Its effectiveness relies on a shared understanding that permits may be refused when risks cannot be adequately controlled, regardless of operational or commercial pressures.

CHIRP notes that entry into enclosed spaces within fuel tanks remains a significant cause of serious maritime accidents and fatalities. Industry guidance is clear that such entries must not be undertaken unless the space has been properly prepared, tested, and confirmed safe. Attempts to override these controls undermine the purpose of the safety management system and increase the risk of serious outcomes. A valid question for the naval architects is why a light fitting should be accessed via a fuel tank?

This case also reinforces the importance of clearly defined roles and authority on board. When the Safety Officer's responsibilities are not fully understood or supported at the command level, safety decisions risk becoming negotiable rather than mandatory.

CHIRP 100% strongly endorses the Safety Officer's professionalism in upholding their decision and submitting a confidential report. Operators may wish to use this case to review their understanding of enclosed space entry requirements, the authority and responsibilities associated with the Permit to Work system, and how differences of opinion on safety matters are resolved within the vessel's command structure.

Maintaining an environment where safety concerns can be raised, supported, and respected without challenge is fundamental to effective safety management, and CHIRP will work to provide support for those who find themselves in a similar situation.

Factors relating to this report

Communication – The situation involved a clear conflict between authority and safety responsibilities. While the Safety Officer communicated their refusal, the incident highlights the importance of assertiveness in enforcing safety rules.

Pressure – The report directly demonstrates the challenge of resisting unsafe instructions from a superior, which is explicitly covered in the Deadly Dozen as a factor that can lead to accidents if ignored.

Local practice – The master attempted to override established safety procedures and COSWP guidance.

Culture – The master showed no safety culture, whereas the Safety Officer upheld the company's values. It is possible that this type of override of a safety barrier, the PTW, is commonplace.

Key Takeaways

"Safety systems are only effective when the authority to stop unsafe work is understood, respected and supported at every level on board."

For regulators

This report reinforces that compliance cannot be assumed simply because procedures exist. Effective safety management depends on authority, role clarity and cultural reinforcement on board. Regulators may wish to continue emphasising that Permit to Work systems are safety barriers, not administrative tools, and that Safety Officers must be explicitly empowered to stop unsafe work without fear of challenge or reprisal.

For managers

Company leadership - the incident highlights the gap between work as imagined and work as done. Clear policies on enclosed space entry and PTW authority must be supported by consistent messaging to masters and senior officers. Training should address the authority gradient directly and reinforce the point that rejecting unsafe work is a leadership responsibility, not an obstacle to operations.

For crew

The report demonstrates the importance of speaking up and adhering to established safety processes, even when under pressure. It also shows that refusing unsafe work is a legitimate and necessary part of professional seamanship. Safety systems only protect crews when individuals trust them and are supportive when they are used.

M2628

Safety authority dismissed by a contractor

Initial report

The reporter informed CHIRP that scaffolders were improperly using their twin-lanyard fall arrestors while working at height. They were reconnecting the spare lanyard to the load-bearing points on their harnesses while using the second lanyard on an external anchor point.

The reporter noticed this and spoke with the scaffolders' supervisor, asking him to inform the team about the error and how it could prevent their arrestors from deploying correctly during a fall. The reporter was dismissed by the contractor, who said this is how they always work. The reporter felt unheard and unvalued.

CHIRP Comments

For a ship's crew member to feel ignored when raising a safety concern is unacceptable. In this case, the reporter correctly raised concerns about the improper use of twin-lanyard fall-arrest equipment. When a safety

concern is raised, work should stop immediately. The Master should be consulted without delay, and the contractor's supervisor informed of the vessel's safety expectations and company policy. Unsafe conditions should always result in a clear, well-supported *Stop Work* decision.

Members commenting on this report highlighted a broader issue of poor safety culture, including gaps in leadership and accountability. Training alone is not enough unless it is supported by clear expectations and visible leadership. Improved training of both crew and contractors, combined with a shared understanding of accountability, would help prevent similar situations.

Falls from height continue to occur because people become briefly disconnected while moving. In maritime environments, twin-tail fall-arrest lanyards should always be used to ensure continuous attachment. The principle is simple: one connection must always remain attached. Before moving or passing an obstruction, the second lanyard leg should be secured to a suitable anchor point, and only then should the first leg be disconnected. This avoids any moment when the person is unprotected.

Anchor points must be structural, correctly rated, and positioned to provide sufficient clear space below for the lanyard and energy absorber to deploy fully. The lanyard stem, including the energy absorber, must be connected to the approved fall-arrest point on the harness, normally the dorsal D-ring. Lanyard legs should not be clipped back onto the harness or belt except at approved parking points, as this can prevent proper operation of the energy absorber and significantly increase the risk of injury.

All fall-arrest equipment should be checked before use and protected from damage caused by sharp edges and the harsh marine environment. Only trained and medically fit personnel should use the equipment, and a clear rescue plan must be in place before starting.

Finally, it is worth reflecting on the contrast between the strong safety culture expected at sea and the practices sometimes introduced on board by contractors. The vessel's expectations must be clearly set out during pre-work planning meetings, reinforced through supervision, and applied consistently. Continuous protection, open reporting, and the confidence to stop work are essential to preventing falls from height. This challenge is often compounded when dealing with contractors, as some crew members may feel uncomfortable challenging individuals perceived as external experts or commercially influential, particularly when the crew lack confidence in confrontational situations.

Factors relating to this report

Alerting – When a crew member alerts you to a safety issue, it must be treated seriously, and the work must be stopped until the alert has been addressed. In this case, the contractors should have listened to the concerns raised and been shown the correct method of using the fall arrestors.

Local Practice – The vessel's management has a legal duty of care to any contractor employed to work on a vessel, and adherence to the company's safety management system is compulsory. If the contractors' fall arrestor practice can be shown to be at least as safe as, or better than, the vessel's SMS, it can be considered acceptable.

Communications – Before any work commences, a work planning meeting must be held to explain the vessel's safety management practices and to listen to the contractors' operating methods.

Complacency – The contractors were overconfident and dismissive of the risks associated with working aloft using fall arrestors.

Key Takeaways

Regulators – Compliance isn't optional — every connection counts
Fall arrest systems are only effective when used according to design; deviations put workers at serious risk.

Managers – Listen first—prevention beats investigation
Ignoring safety concerns and 'we've always done it this way' attitudes erode trust and endanger crews.

Seafarers/Crew – Check it twice – your life depends upon it
Misusing fall protection can turn a harness into a hazard rather than a safeguard. Always verify anchoring points.

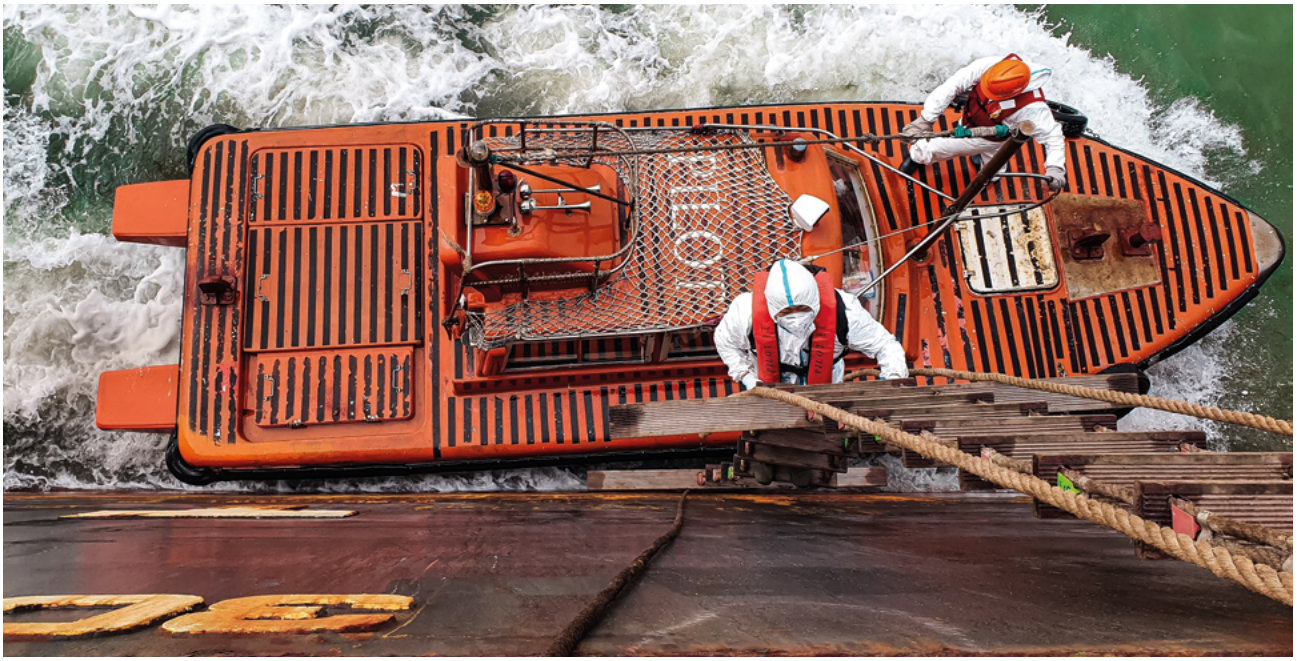
Representative image. Credit: Shutterstock

M2681

Pilot ladder transfer arrangements- significant safety concerns

Initial report

A safety concern was reported via a company's SMS involving a merchant vessel during pilot embarkation operations. At the time of the report, the vessel had a relatively low freeboard of approximately 2.5 metres.



Representative image. Credit: Shutterstock

It was identified that the vessel's SOLAS-approved pilot ladder had been positioned directly in front of a recessed, built-in ladder located in the ship's hull. This configuration created a serious hazard during embarkation. In the event of a slip while transferring from a pilot boat, there was a clear risk that a foot could become trapped in the recessed ladder opening. With the normal rise and fall between the vessel and the pilot boat, this could result in severe injury, including crushing or amputation.

Because of the reduced freeboard at the time, the pilot ladder was not used, and boarding was carried out by stepping directly across. The Master was informed of the hazard and agreed to continue operations without using the pilot ladder. Photographic evidence of the arrangement was provided.

While this avoided immediate use of the ladder, the underlying risk remained. The pilot ladder was not positioned clear of obstructions, which is not compliant with SOLAS requirements. Any change in freeboard or operational conditions would immediately reintroduce the hazard. The recessed hull ladder represents a design-related risk that could affect future pilot transfer operations and regulatory inspections.

To address the issue, the pilot ladder should be relocated to a position clear of all obstructions. This would require structural modification, including the provision of an additional compliant boarding gate on deck.

This report emphasises the importance of ensuring pilot transfer arrangements are safe under all normal operating conditions and not reliant on temporary or procedural workarounds. The issue will be raised with the relevant authorities to support learning and prevent recurrence.

CHIRP Comments

This report highlights a structural and procedural safety issue rather than an individual error. Pilot transfer arrangements must be safe under all normal operating conditions, not only in favourable weather or when the vessel's draft is optimal.

In this case, the pilot ladder was not used due to a credible risk, reinforcing serious safety concerns - particularly in light of a very recent fatality during a pilot transfer elsewhere. This underlines that the hazard is real and immediate.

The use of a recessed hull ladder is a design-related risk, not an isolated arrangement. It is understood that five or six vessel types have been constructed with similar features. Design elements that introduce trapping or crushing hazards should be formally assessed and, where necessary, corrected. Temporary or operational workarounds do not remove the underlying risk and may not be considered acceptable during Port State Control inspections.

CHIRP also questions how this arrangement was approved at the design stage. Recesses in high-stress areas of the hull girder are vulnerable to notch stresses and are more likely to experience accelerated corrosion at internal welds. The entrapment of seawater within these spaces further increases the risk of corrosion and potential leakage into the hull.

It is important to reiterate that SOLAS requirements are not open to interpretation; they are to be complied with as written.

Given the number of vessels affected and the fundamental nature of the design concerns, CHIRP is considering whether this warrants a separate report focused on the risks associated with this class of vessel.

CHIRP will raise these issues with the relevant authorities to support wider learning and help prevent recurrence.

Factors relating to this report

Design – Original design has created the impression that the arrangement is acceptable and safe

Communication – An absence of exchanging safety-critical information.

Overconfidence – Reduced vigilance due to familiarity, routine, and past acceptance has allowed this unsafe situation to go unchallenged by multiple actors.

Lack of Teamwork – Poor coordination, cross-checking, or shared situational awareness.

Lack of Awareness – Poor situational awareness of hazards or consequences.

Key Takeaways

Regulators – This case highlights that compliance alone does not guarantee safety

Equipment and arrangements should be assessed in terms of how they function in real operating conditions, particularly during dynamic activities such as pilot transfer. Confidential reports provide valuable early warning of design-related risks and should be used to support wider learning and prevention, not just local resolution.

Managers and Company Leadership – Workarounds used to remain safe indicate underlying system or design weaknesses that require correction

Access and pilot ladder arrangements should be addressed through design and engineering solutions rather than reliance on procedural avoidance. Near-misses involving human–equipment interfaces should be treated as important learning opportunities within the safety management system.

Crew - If the job isn't safe using standard arrangements, report it – even if nothing went wrong

If a task can only be carried out safely by adapting or avoiding standard arrangements, the condition should be reported even if no incident occurs. Unsafe configurations should not become normalised through familiarity. Clear, factual reporting helps protect others and supports long-term improvements in safety.

M2692

Remote fridge update triggers dead ship while manoeuvring

Initial report

A very large superyacht experienced a partial loss of power while performing an arrival manoeuvre into a confined harbour. Several critical systems went offline: navigation displays rebooted, engine room monitoring screens went dark, and the vessel briefly lost situational awareness.

Emergency power was restored to a limited extent, but the disruption caused confusion and delayed the manoeuvre.

Investigation by technical crews traced the failure to a remote software update on a galley refrigeration unit. The update had been initiated by the shore-side supplier without notifying the yacht. During the update, an unexpected electrical load spike triggered the power management system to shed systems in a sequence the crew did not fully understand.

CHIRP Comments

This incident highlights the risks associated with remote software updates being carried out on vessels without prior notification to the crew. In this case, a very large superyacht lost power during a manoeuvre after a software upgrade to a non-essential system (galley refrigeration). Through its connection to the integrated power management system, the update indirectly affected essential navigation and monitoring systems, causing critical equipment to go offline at a high-risk moment during manoeuvring in port.

Updating machinery controls or power-connected systems while a vessel is underway and entering harbour poses an unacceptable risk. Systems of this nature should be isolated using breakers or equivalent safeguards to ensure that non-critical equipment cannot trigger cascading failures affecting essential services.

The incident also raises cybersecurity concerns. Although the event appears to have been accidental, similar outcomes could result from a malicious cyberattack. Remote access to onboard systems, particularly non-essential ones, introduces potential vulnerabilities if cyber-defences and network monitoring are not robust. Crews should be aware of these risks and ensure appropriate protective measures are in place.

The crew's response further illustrates the challenges of managing unanticipated system failures. While partial emergency power was restored, the order in which systems were shed was not fully understood, highlighting the need for improved familiarisation and training on how the power management system responds to abnormal electrical loads and unexpected system behaviour.

This event also points to a wider concern regarding the management of change. Software updates and system modifications should be treated as formal changes, with clear procedures in place, including risk assessment, crew notification, and operational restrictions where necessary.

CHIRP is also concerned that downsizing of crews and the transfer of technical control and decision-making ashore can have unintended consequences. Removing responsibility from those onboard may reduce situational awareness and the crew's ability to anticipate or manage developing risks in real time.

Suppliers should communicate all software updates in advance, allowing vessels to assess potential operational impacts and decide when it is safe to proceed. Operators should also review the integration of non-critical systems with essential systems to prevent single-point or cascading failures. Strengthening cyber-defences and monitoring networked access points, even for apparently minor systems, will help reduce the risk of both accidental disruption and deliberate attack.

Factors related to this report.

Situational Awareness – was immediately affected when critical systems went offline, leaving the crew temporarily unaware of the vessel's position and status. The sudden loss of displays and monitoring screens created confusion and increased cognitive load, impacting decision-making during a critical manoeuvre.

Complacency – Over-reliance on automation may have played a role.

Capability – The crew did not fully understand the sequence in which systems would be shed during an unexpected electrical load, highlighting the need for drills or

procedures that address unusual scenarios beyond standard failures. The crew trusted that all systems would operate without affecting critical systems. This reliance left them unprepared for cascading system failures triggered by an unexpected load spike.

Communication – The shore-side supplier had initiated a software update without notifying the yacht. The lack of prior communication limited the crew's ability to plan and maintain control.

Pressure – Increased sharply during the incident. Emergency power was partially restored, but the crew had to manage multiple simultaneous issues under time pressure, with an incomplete understanding of the power management system's behaviour. This stress could impair judgement and slow the effective response.

Key Takeaways

Even small updates can have big consequences at sea.

For Regulators – This incident highlights the importance of establishing and enforcing clear communication protocols between equipment suppliers and vessels. Unannounced software updates, even to non-essential systems, can inadvertently affect critical ship systems. Regulators should ensure that guidance and standards require advance notice and risk assessment before any remote updates are applied.

For Managers – Managers are reminded to review how non-essential systems integrate with vital ship operations. Understanding these interdependencies and enforcing strict procedures for system changes, maintenance, and software updates are essential to prevent cascading failures. Oversight and verification of supplier actions can reduce the risk of unintended disruptions.

For Crew – The event underlines the need for crews to maintain situational awareness at all times and to be familiar with the vessel's power management behaviour. Training should include unusual or cascading system failures, and crews should remain vigilant during periods of high workload or complex manoeuvres. Quick, informed action depends on understanding both the technology and the human factors at play.

Representative image. Credit: Shutterstock

M2701

Night navigation, ETA pressure, and decision making

Initial report

The reporter contacted CHIRP with this report, which concerned a night transit through a highly congested area within a traffic separation scheme (TSS). The reporter stated that they reduced speed to allow a slow overtaking vessel to clear ahead. "This then allowed my vessel to overtake safely without leaving the TSS. Had I overtaken both vessels immediately, our vessel would have been forced outside the scheme".

"The following morning, the master challenged this decision, stating that I had no authority to adjust the speed because it affected the vessel's ETA and that orders issued that night should have been followed. I explained that my actions were taken to comply with COLREGs and to maintain safe navigation in heavy traffic. No specific night orders had been given regarding speed adjustments or a requirement to call the master in such circumstances."

CHIRP Comments

The master's reaction appeared to be driven by concern about the impact on ETA and by the belief that night orders had been breached. This highlights a common tension on board: commercial pressure and schedule adherence, versus the realities of dynamic traffic management at night.

From a navigational perspective, the officer's actions were both reasonable and compliant with COLREGs. Officers of the watch are not only permitted but required to take early and positive action to avoid close-quarters situations. This authority exists regardless of whether night orders specifically mention speed adjustments. If officers feel constrained from acting decisively out of fear of criticism, safety margins erode quickly.

Calling the master to explain the developing situation may have been an option. However, this raises an important question: did the officer feel sufficiently supported and confident to do so? A bridge culture in which officers hesitate to call the master for fear of a negative reaction is itself a risk factor. The master's standing and night orders should make it clear that safety-driven decisions are expected, supported, and open to discussion.

Night orders did not adequately cover speed management in heavy traffic; the balance between schedule adherence and navigational safety; and the explicit authority of the OOW under COLREG Rule 2 and, in particular, the principles of Rule 8. The master's standing orders should, however, make very specific reference to these aspects so that officers are not in doubt about what actions to take.

A culture that questions compliant safety decisions risks normalising hesitation or delay in future high-risk situations. ETA sensitivity reflects broader industry pressures that can indirectly shape onboard leadership behaviours and expectations.

This report underscores the importance of trust, clarity, and shared priorities on the bridge. Compliance with COLREGs and good seamanship must always take precedence over ETA. Masters play a key role in reinforcing this message before, during, and after the watch.

Factors relating to this report

Communication – Hesitation to call the master due to fear of criticism or questioning decisions. Lack of clarity on OOW's authority to make COLREG-compliant decisions independently.

Pressure – ETA pressure influences the master's reaction and the potential for officers to defer safety decisions. High-density traffic and schedule pressures increase cognitive load and potential for conflict.

Teamwork – Tension between the officer and the master shows trust and authority gaps.

Local Practice – Misunderstanding of COLREG authority can normalise hesitation in future similar scenarios.

Capability – Balancing schedule adherence versus navigational safety without clear guidance.

Training – Night orders did not explicitly cover speed adjustments in dense traffic situations.

Key Takeaways

Regulators: Rules are not optional; early, safe action is non-negotiable

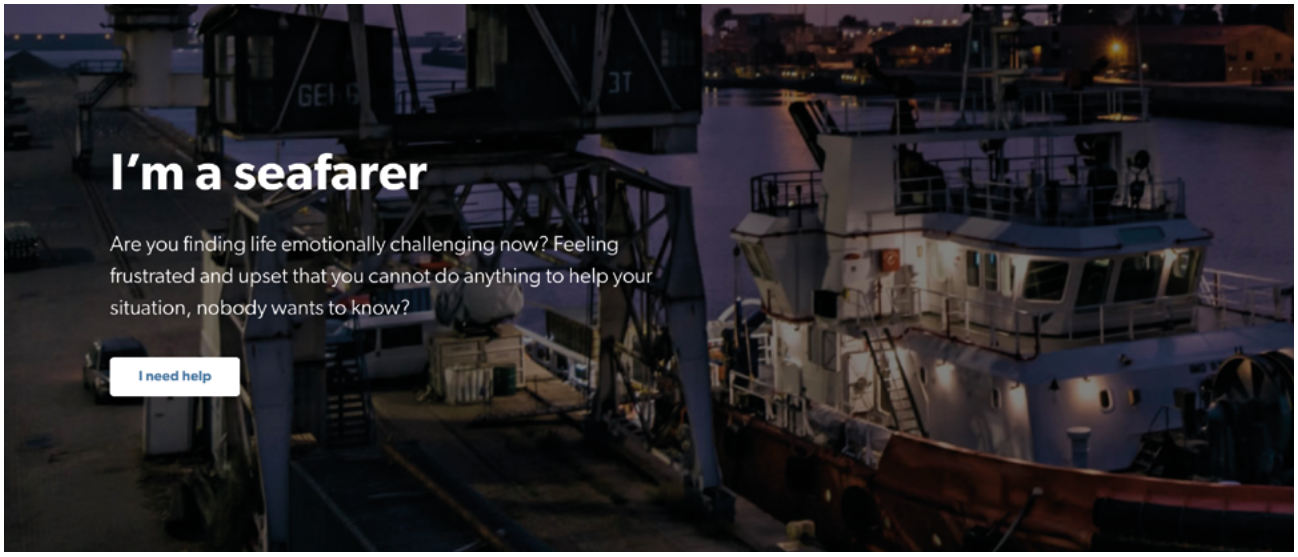
Safety must always outweigh commercial imperatives. COLREGs provide clear authority for officers to take early action in navigational risk scenarios, and regulations should reinforce this to prevent the normalisation of delayed decision-making. Regulators need to ensure that industry guidance emphasises that schedule pressures never justify compromising safe navigation.

Managers / Masters: Safety-first leadership prevents hesitation from becoming a habit

Bridge culture matters more than orders alone. Explicitly reinforcing that COLREGs and safe seamanship take precedence over ETA pressures empowers officers to act decisively. Masters should model trust, openness, and clear guidance for night navigation scenarios to avoid hesitation or friction.

Seafarers / Officers: Act early, act safely, and don't fear doing what's right

You are empowered to act decisively within COLREG rules. Understanding your authority, balancing risk with operational pressures, and communicating with the master when possible ensures safe outcomes, even when orders are unclear. Confidence and clarity are your best tools in high-pressure situations.



Befrienders Worldwide (BW) is an emotional support charity whose mission is global suicide prevention. BW has operated for 50 years and has over 400 centres in 48 countries.

The main aim of the centres is to give confidential emotional support to people when they are suicidal. The centres also alleviate misery, loneliness, despair and depression by listening to anyone who feels they have nowhere else to turn.

The people who run the centres – Befrienders – are volunteers who have all been specially trained. The work is non-political and non-religious; volunteers do not try to impose their convictions on anyone. They listen.

Contact with a centre can be by telephone, letter, email, internet chat, SMS text message, or face-to-face meeting. It is strictly confidential, as is everything that the person tells a Befriender. Some callers prefer to remain anonymous, and that's fine.

Befrienders Worldwide has a dedicated seafarers' page recognising the emotional challenges seafarers face while working at sea.

Please look at the website. www.befriender.org

If you need to contact a dedicated seafarers' centre, please click on the link: https://befriender.org/befrienders-worldwide-seafarers/ which will take you to the seafarers' page. Thank you.

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