**LLAMA ZER-SHOT**

The report highlights two significant accidents that occurred at Kyleakin pier: a grounding incident involving the cargo ship Carrier in 2012, which resulted in damage beyond repair and a spillage of 33,000 litres of gas oil; and another accident involving a boat transfer fatality. Both incidents were attributed to inadequate planning, control, and safety measures.

The investigation into these accidents revealed that the Kyleakin pier operators failed to implement an effective Marine Safety Management System (MSMS) as required by the Performance Measurement and Reporting System for Shipping (PMSC)[MGE]. This lack of oversight led to a series of critical errors, including insufficient navigational audits, reliance on crew members to conduct self-assessments, and inadequate review processes.

The report suggests that these accidents could have been prevented if the Kyleakin pier operators had adhered to the recommended measures outlined in the PMSC. Specifically, they failed to consider all ten measures as required by the system and did not undertake a marine risk assessment or monitor/review their operations effectively.

This highlights the importance of implementing robust safety management systems and adhering to established guidelines to prevent such incidents from occurring. The report also underscores the need for effective communication, adequate training, and ongoing review processes within maritime organizations to ensure compliance with regulatory requirements.

In light of these findings, it is crucial that shipping operators take proactive measures to address these deficiencies, including conducting thorough risk assessments, implementing MSMS, and providing regular training for crew members.

**LLAMA ONE-SHOT**

On 28 March 2020, at approximately 1505 UTC, the vessel Key Bora, a chemical tanker registered in Gibraltar, suffered a serious marine casualty while arriving at Kyleakin Pier, Isle of Skye, Scotland. The incident occurred during the vessel's approach to the pier, with good visibility and smooth sea state conditions.

The master of the Key Bora, in order to coincide with low water when slack tidal stream was anticipated, had planned to arrive at the pier around 1500 that afternoon. As the vessel approached Kyleakin Pier, it was being manned by a reduced crew[MGE] of 12 personnel. At 1410, when the vessel was approximately 3 nautical miles away from the pier, the master took over conning duties from the officer of the watch (OOW). The ship's speed was then reduced to 4 knots at around 1445.

During this handover process, the chief officer arrived on the bridge and took over as OOW, while the second officer left the bridge to prepare for berthing. However, it appears that there may have been a lapse in communication or procedure during this transition period, which ultimately led to the incident. [MGE] At 1505 UTC, the vessel struck the pier, causing significant damage to its hull[MGE].

Fortunately, despite the severity of the impact, there were no injuries or fatalities reported on board. However, the vessel's cargo hold was breached, releasing liquid chemicals into the sea[MGE]. Fortunately, no environmental damage occurred as a result of this incident.

An investigation into the incident, conducted in accordance with the Port Marine Safety Code and its associated Guide to Good Practice, identified several key factors contributing to the accident. Firstly, it appeared that there had been inadequate planning and control of marine operations at the pier, which was further exacerbated by a lack of an effective Marine Safety Management System (MSMS). Additionally, the investigation highlighted the importance of clear communication [MGE]and procedure during ship-handover periods.

In light of these findings, Mowi Scotland Limited is recommended to take several actions to prevent similar incidents in the future. Firstly, they should ensure that marine operations at Kyleakin Pier follow the guidance outlined in the Port Marine Safety Code and its associated Guide to Good Practice. This will involve implementing a comprehensive MSMS to manage and control ship movements during berthing and departure procedures.

Secondly, Mowi Scotland Limited is recommended to consider applying for a Harbour Empowerment Order, which would grant them statutory harbour authority status at Kyleakin Pier. This designation would enable the company to operate with greater autonomy and flexibility over their vessel handling operations and ensure improved maritime safety standards.

**QWEN ZERO-SHOT**

On April 3, 2012, [DTE] the cargo ship Carrier grounded at Raynes Jetty in Llanddulas, north Wales. This incident resulted in significant damage to the vessel beyond repair and a spillage of approximately 33,000 liters of gas oil (MAIB report 8/2013). The Marine Accident Investigation Branch (MAIB) investigation found that the jetty owners did not have a Marine Safety Management System (MSMS) in place as recommended by the Port Marine Safety Code (PMSC). As a consequence, marine operations at the jetty were inadequately planned and controlled.

The absence of an effective MSMS contributed significantly to the incident. The report highlighted that without proper planning and control, the vessel's navigation and operations faced numerous risks, particularly in areas with changing weather conditions such as strong winds and tidal changes. The MAIB recommended that the Department for Transport (DfT)[NNE] broaden the application of the PMSC to include non-statutory harbors, which was subsequently accepted and implemented in 2016.

From this accident, several key lessons can be drawn. Firstly, the implementation of an MSMS is critical for ensuring adequate planning and control over marine operations, thereby reducing the risk of accidents like grounding. Secondly, adverse weather conditions [MGE]such as strong winds and waves combined with tidal changes pose a significant risk to vessel maneuvering, particularly in areas where water depth is shallow (such as side berths).

To prevent similar incidents in the future, shipping companies should ensure that all marine operations are supported by robust MSMS. Regularly assessing and updating navigational plans to account for varying weather conditions and tidal changes will also be crucial. Training crew members on handling vessels under adverse weather conditions can further enhance safety. [MGE]

By implementing these precautionary measures, we can significantly enhance maritime safety and minimize the risk of accidents.

**QWEN ONE-SHOT**

On March 15, 2020 [DTE], an incident occurred involving the transfer of personnel from a shore site to aquaculture installations in Scotland using a workboat. The vessel involved was Beinn Na Caillich, which experienced a ground collision [MGE] during the boat transfer, leading to a loss of one life. The accident transpired when the workboat operator did not adequately plan or brief the operation and failed to properly control it.

Several factors contributed to the incident. Firstly, there were no risk assessments or established procedures for transferring personnel between shore sites and aquaculture installations by boat. Additionally, the vessel’s crew did not follow standard operating procedures, which likely exacerbated the situation during navigation.[UGE]

The Marine Accident Investigation Branch (MAIB) conducted a thorough investigation into this accident. The MAIB's findings highlighted that the conduct of the boat transfer was poorly planned and executed without proper control measures. This lack of preparedness and oversight directly contributed to the tragic outcome.

As a result of the accident, several actions have been taken by relevant authorities and entities involved in marine operations. Marine Scotland has added a standard condition to all marine licences requiring licensees to comply with the licence terms, application details, and plans submitted as part of the application process. The Northern Lighthouse Board moved Black Eye buoy 115 meters east-south-east towards Black Eye Rock to improve navigational safety for vessels approaching Kyleakin pier. V.Ships conducted a navigational audit of Key Bora's bridge team practices and issued internal fleet guidance, emphasizing the importance of using local hydrographic information and ensuring safe navigation during pilotage.

Furthermore, Mowi (Scotland) Limited undertook an investigation into the accident and produced a report for distribution among involved parties. Recommendations were made to Mowi to ensure that appropriate marine expertise is provided to senior management to oversee the safety of their operations effectively.

To prevent such incidents in the future, it is crucial to implement robust risk assessment procedures, enhance communication and training for crew members, and ensure adherence to industry best practices. Additionally, continuous review and improvement of emergency response plans are essential components in maintaining maritime safety standards.

**CHAT GPT ZERO-SHOT**

The report investigates the grounding of the chemical tanker Key Bora on 28 March 2020 while approaching the Kyleakin Feed Mill Pier, Isle of Skye, Scotland. The vessel struck a submerged boulder, causing damage to its hull, including ruptures in the shell plating and flooding of an empty ballast tank. Fortunately, there were no injuries or environmental pollution reported. The vessel was refloated and berthed under its own power before proceeding to Glasgow for repairs.

The primary cause of the accident was the reliance on inaccurate navigational data provided by the port agent, which contradicted the more accurate and recently updated ENC (Electronic Navigational Chart) that had correctly identified a 4.9m hazard near the pier. The crew used the agent’s data, assuming it was reliable and current, while dismissing the ENC as outdated. Contributing factors included the absence of a robust passage plan [MGE], ineffective use of the ECDIS system, and poor bridge resource management (BRM). The tidal stream and shallow water were misjudged, and despite warning signs during the approach, the crew failed to abort the berthing. [UGE]

The investigation also revealed systemic issues at the Kyleakin facility. The pier lacked a Marine Safety Management System (MSMS) and compliance with the Port Marine Safety Code (PMSC), both of which had been stipulated as risk mitigation measures during the facility’s licensing process. Additionally, leftover boulders from incomplete dredging operations contributed to the hazard.

Key lessons from the accident include the importance of prioritizing official hydrographic data over local, unverified information and ensuring robust passage planning that incorporates accurate tidal and depth data. Effective BRM and proper configuration of ECDIS safety settings are also critical. Facilities like Kyleakin should implement MSMS, comply with the PMSC, and consider statutory oversight through a Harbour Empowerment Order. These measures are essential to safeguard navigation and prevent similar incidents in the future.

**CHAT GPT ONE-SHOT**

On 28 March 2020, the Gibraltar-registered chemical tanker Key Bora ran aground while navigating to the Kyleakin Feed Mill Pier, Isle of Skye, Scotland. The incident occurred at approximately 1505 UTC, during the vessel's approach to the pier without pilotage assistance. The tanker, laden with 500 tonnes of lecithin, 1500 tonnes of rapeseed oil, and 1090 tonnes of fish oil, had departed Esbjerg, Denmark, two days earlier. The grounding took place as the vessel passed over a charted 4.9m underwater obstruction located 50m north of the pier. This obstruction, likely a large granite boulder, was not part of the designated dredging area during pier construction and had been incorrectly assessed during previous hydrographic surveys.

The accident caused significant damage to Key Bora’s hull [MGE], including ruptures in the shell plating and flooding of an empty ballast tank. However, no injuries or environmental damage were reported. Following the grounding, the vessel refloated using its own power and berthed at the pier. Subsequent inspections revealed the extent of the damage, and the vessel proceeded to Glasgow for repairs after discharging its cargo.

The investigation revealed that the grounding resulted primarily from errors in passage planning and reliance on inaccurate navigational information. Despite the presence of updated and accurate electronic navigational charts (ENC), the vessel's crew prioritized a local dredging survey an d pre-arrival information provided by the port agent. This information, though considered reliable, failed to indicate the charted hazard and misrepresented tidal stream conditions. The master and the second officer (2/O) ignored the ENC's 4.9m sounding, assuming it was outdated, and planned the approach to coincide with low water, believing slack tidal stream would occur at that time. Furthermore, the vessel’s bridge team did not use the Electronic Chart Display and Information System (ECDIS) effectively, failing to configure the safety contour and look-ahead functions, which could have provided critical warnings of the hazard.

The lack of adherence to proper bridge resource management (BRM) principles also contributed to the accident. The bridge was undermanned during the approach, with only the master and the chief officer (C/O) present, contrary to the ship's safety management system (SMS) requirements. The absence of a clear decision-making process and situational awareness led to the failure to abort the approach despite signs of unexpected tidal stream and proximity to hazards. Additionally, the master did not notify the ship management company, V.Ships, of conflicting navigational information or the fact that Key Bora was navigating to Kyleakin for the first time, as required by the SMS.

Post-accident investigations also highlighted deficiencies in the management of marine operations at Kyleakin Pier. The pier was operated as a non-statutory harbour without adherence to the Port Marine Safety Code (PMSC). Mowi Scotland Limited, the pier operator, had not fully implemented key safety measures recommended during the pier’s licensing process, such as the establishment of a Marine Safety Management System (MSMS) or compliance with the PMSC. These omissions, combined with the inaccurate pre-arrival information provided to the vessel, significantly increased the risk of grounding.

In response to the accident, several actions have been taken by the involved parties. Mowi Scotland Limited appointed a duty holder and designated person to oversee marine safety and implemented an MSMS for the pier. The approaches to the pier were resurveyed, and the uncharted boulder-like obstructions were removed. The Northern Lighthouse Board relocated the Black Eye buoy to improve navigational safety in the area. V.Ships conducted a navigational audit of Key Bora’s bridge team practices and issued fleet-wide guidance emphasizing the importance of using official hydrographic data over local surveys and ensuring proper ECDIS configuration. Marine Scotland introduced a standard condition requiring that licensees implement all risk mitigation measures outlined in marine licence applications.

To prevent similar accidents in the future, it is recommended that Mowi Scotland Limited ensure full compliance with the PMSC and its associated Guide to Good Practice. The company should also consider applying for a Harbour Empowerment Order to establish a statutory harbour authority for Kyleakin Pier, thereby formalizing accountability for navigational safety. Additionally, shipping companies must emphasize the importance of using accurate and official hydrographic data, adhering to BRM principles, and conducting thorough navigational audits to ensure compliance with SMS requirements. These measures will help improve safety and reduce the risk of navigational accidents in challenging maritime environments.

**LLAMA FEW-SHOT**

The accident occurred on an unspecified date in 2020, when the ro-ro freight ferry [MGE]Key Bora grounded in thick fog [MGE]while entering Aberdeen Harbour. The incident took place during the vessel's overnight passage from Lerwick in the Shetland Islands. There were no injuries or pollution reported, and the vessel was successfully re-floated 45 minutes later.

The damages sustained by the vessel were significant, with holing and splitting of several water ballast tanks, damage to the port propeller and rudder, and further repairs requiring dry docking. The accident resulted in the vessel being out of service for four weeks.

An investigation into the accident was conducted by Marine Scotland, V.Ships, and Mowi (Scotland) Limited, which identified several contributing factors. Inaccurate pre-arrival information provided by the agent to Mowi was a significant factor in the accident. Without consideration of the PMSC's principles, the Kyleakin facility was operating without a governance structure to assess and mitigate risks. This lack of oversight allowed navigational risk to be unintentionally created.

As a result of this incident, Marine Scotland added a standard condition to all marine licences requiring licensees to carry out the licensable activity in accordance with the licence, the application, and all plans and programmes submitted as part of the application. V.Ships conducted an internal investigation into the accident and issued fleet guidance highlighting the safety issues emerging from this accident, including the use of local hydrographic information in lieu of local surveys, and the conduct of navigation during pilotage. Mowi (Scotland) Limited also conducted an investigation into the accident and produced a report circulated to involved parties. [UGE]

In light of this incident, it is recommended that future shipping companies place greater emphasis on ensuring accurate pre-arrival information is provided, and that they operate with strict adherence to PMSC principles to mitigate navigational risks. Additionally, regular audits and reviews should be conducted to ensure that governance structures are in place to assess and manage risks associated with vessel operations. This will help prevent similar accidents from occurring in the future and ensure the safety of vessels, crew, and other maritime stakeholders.[MGE]

**QWEN FEW-SHOT**

On March 2020, [DTE] the vessel "Key Bora" encountered a significant navigational incident off the coast of Kyleakin, Scotland. The exact nature and time are not explicitly stated in the report, [MGE]but it is clear that the accident led to substantial damage and required immediate action.

The incident arose from a combination of poor navigation practices and inadequate local hydrographic information usage. Key Bora's bridge team relied on outdated or insufficient local charts, [MGE]which hampered their ability to accurately assess the safe water available in the Aberdeen approach channel. Additionally, suboptimal ergonomics at the vessel’s bridge contributed to navigational errors, as the conning officer was predominantly reliant on radar for navigation without a comprehensive Electronic Chart System (ECS) view.

As a result of these factors, Key Bora grounded and began to list significantly [MGE]in the falling tide. After 13 minutes, [MGE] the general alarm was sounded upon verification that there were no internal ruptures or ingress of water into the hull. The vessel's master decided to attempt re-floating using its engines and bow thruster with assistance from an Aberdeen Harbour pilot and a tugboat. Despite this effort, the procedure likely caused additional damage to the ship. [MGE]

Following the incident, several parties took corrective actions to address the issues identified. Marine Scotland added a standard condition to all marine licences, requiring licensees to conduct activities in strict accordance with their licences, applications, and submitted plans and programmes. The Northern Lighthouse Board moved Black Eye buoy 115 meters east-south-east towards Black Eye Rock to enhance navigational safety for vessels approaching Kyleakin pier. V.Ships conducted a comprehensive navigational audit of Key Bora's bridge team practices and issued internal fleet guidance addressing the critical issues, particularly the use of local hydrographic information in lieu of detailed surveys during navigation.

To prevent similar incidents in the future, recommendations include ensuring up-to-date charting and using more reliable sources for local hydrographic data. Enhanced ergonomics and better integration of advanced navigational technologies such as ECS systems can also improve bridge team efficiency and accuracy. These measures aim to reduce navigational risks to the lowest reasonably practicable level by fostering a robust safety culture within maritime operations. [MGE]

**CHAT GPT FEW-SHOT**

On 28 March 2020, the chemical tanker Key Bora ran aground 50m north of the pier at Kyleakin, Isle of Skye, Scotland, during its approach to berth. The incident occurred at 1505 UTC, under daylight conditions but with overcast skies and smooth seas. The vessel sustained significant damage, including the flooding of its No.5 main ballast tank and ruptures in its hull plating. However, there were no injuries to the 12 crew members onboard, and no environmental pollution was reported. Following the grounding, Key Bora refloated using its engines and was berthed safely at the pier, but it required dry-docking in Glasgow for repairs.

The grounding occurred primarily because the passage plan for the approach to the pier was based on inaccurate navigational information. The crew had observed a 4.9m charted depth hazard on the vessel’s Electronic Chart Display and Information System (ECDIS). However, this information conflicted with the local survey charts and pre-arrival information provided by the vessel’s agent, which did not show the hazard. The master decided to disregard the ECDIS data and proceed based on the agent’s information, assuming that the ECDIS charts were outdated. This decision proved to be incorrect, as the 4.9m obstruction, added to the ECDIS via a recent chart correction, was accurate. Further, tidal stream conditions and course adjustments made during the final approach to the pier heightened the navigational risks, leading to the grounding.

The investigation also revealed shortcomings in the execution of bridge resource management (BRM). Although Key Bora’s Safety Management System (SMS) prescribed a minimum bridge manning level for high-demand navigation scenarios, only the master and chief officer (C/O) were present on the bridge during the approach. The crew’s failure to configure the ECDIS safety settings effectively and their lack of situational awareness contributed to the incident. The vessel’s bridge team was not adequately briefed on the navigation plan, and the absence of a robust monitoring system allowed critical errors to go uncorrected.

In response to the accident, several actions were taken. The ship manager, V.Ships UK Limited, conducted an internal investigation and issued fleet-wide guidance emphasizing the importance of verifying local hydrographic information and adhering to SMS procedures during navigation in pilotage waters. Additionally, the pier operator, Mowi Scotland Limited, resurveyed the approaches to the pier, removed submerged obstructions, and implemented a Marine Safety Management System (MSMS) for the facility. A designated person was also appointed to ensure compliance with the Port Marine Safety Code (PMSC).[UGE]

To prevent similar accidents in the future, this report recommends mandating stricter adherence to passage planning guidelines, including thorough verification of all navigational data sources. It also emphasizes the need for effective BRM practices, ensuring adequate bridge manning and team briefings during high-risk operations. Furthermore, port operators should improve local navigational risk assessments, provide updated hydrographic surveys, and ensure that mitigation measures identified in risk assessments are implemented before commencing operations. [MGE]Lastly, given the repeated incidents in Kyleakin, it is recommended that the pier operator consider applying for a Harbour Empowerment Order to formalize statutory control, ensuring navigational and operational safety.