

CHIRP MARITIME FEEDBACK

Issue No: 38

01/2015

EDITORIAL

Welcome to the latest edition of **CHIRP** Maritime FEEDBACK. At the last meeting of the Maritime Advisory Board (MAB) I was encouraged to share with our readers, their increasing concern over the erosion of the customary application of the ordinary practice of good seamanship. It is interesting to note the Royal Yachting Association is encouraging leisure users to think more about ongoing activities around them and not just focus on the primary activity they are involved in; perhaps an approach that professional seafarers could benefit from.

Another concern expressed by the MAB is the urgent need to adopt a good safety culture onboard. Safety is not about writing more rules, procedures and guidance; it is the belief that safety is in our hearts and minds in everything we do, from the planning stage through until all work is complete. Within minutes of walking onboard a ship a visitor/inspector to a ship will get a feel for the efficiency and quality of operations: the biggest influence is a visible safety culture onboard.

A good safety culture includes the adoption of an attitude to look out for each other in all matters of safety and the use of safety equipment. Mentoring of staff is a good practice but it is not just for the young people joining a ship: there are many that have qualifications but are new to the working environment onboard and they will all benefit from the advice of those working around them.

There is new evidence that there could be an industry problem with the design of the controls and location of the helmsman's seat in free fall lifeboats. If you have one on your ship, please read the report below and you are invited to contact us if the same design is used in the lifeboat on your ship.

Once again we have received reports on hazardous incidents relating to non-compliance with the COLREGS and concerns expressed over the safety of passengers on ferries. However it is very pleasing to see an increase in the reports relating to the operation of machinery and engineering practices. The risks have always been there but now people are willing to share their experiences.

In this issue we include details of the process used by the **CHIRP** Maritime programme. It illustrates the confidential way we handle report information and how we ensure the reporter's identity is never released. On the reverse side of the paper is a copy of the report form and we invite you to copy, use and share this with others. Reports can also be submitted using our secure encrypted online form. <https://www.chirp.co.uk/submit-a-report/online>.

My thanks for the continued interest and support shown in International **CHIRP** Maritime. Stay safe wherever you are!

John Rose Director (Maritime)

REPORTS

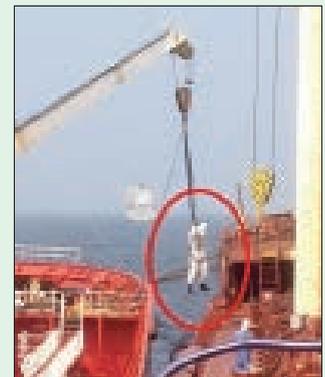
HIGH RISK PERSONNEL TRANSFER

Report Text: Non-compliance with personnel transfer procedures during STS operations created an uncontrolled, high-risk transfer between vessels. There is a very clear explanation in the STS procedure booklet on how to carry out personnel transfers but the charterer and ship managers had earlier advised there will not be a surveyor, or any cargo inspection and therefore the daughter vessel did not have to acquire a Personnel Transfer Basket (PTB).

The transferred person was the supercargo working for Company "X". This was the first time working for them and he was afraid in case there were any mistakes in the calculation of cargo transferred. Despite the mother vessel's advice that no personnel transfer was required, he insisted on visiting the mother vessel.

The supercargo ignored all advice and despite every warning, he jumped across to the mother vessel using a safety harness on the ship's crane hook (like Tarzan)!

The Supercargo and the daughter vessel's crew were advised that this type of transfer is very dangerous.



CHIRP Comment: The report highlights a very dangerous practice. The pressure to visit the mother ship appears to have been solely due to the supercargo and perhaps in the belief he was creating a good impression on his first assignment. The result was a senior person flaunting safety standards on both ships. The safety culture on the ship operating the crane was not strong; the crew did not feel empowered to stop lifting the inspector when he insisted on the lift. The inspection company needs to review the procedures and requirements when personnel are transferring between the ships.

VESSEL TRYING TO ANCHOR VERY CLOSE TO OWN ANCHORED VESSEL

Report Text: While at anchor in poor visibility conditions, an approaching vessel attempted to anchor very close to the vessel's position. The OOW was monitoring the movement of the other vessel, called her on the VHF with a request to ensure there was a greater margin of safety.

CHIRP Comment: This was a good practice by the OOW, due to his alertness and vigilance the risk was averted.

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CONTACT DURING SHIP TO SHIP TRANSFER

Report Text: On completion of unmooring, in light breeze conditions, with a tug made fast forward and another made fast aft, the Manoeuvring vessel opened the bow and as result, the stern closed on to the anchored Mother Vessel which had maintained a steady heading. The Master of the Mother Vessel and the mooring master tried to contact the pilot and master of the Manoeuvring vessel on the agreed working VHF Channel 71 but without success. The master of the Manoeuvring Vessel was responsible for the manoeuvre assisted by the pilot. To minimise the impact, the master of Mother Vessel ordered 'Hard to starboard' and engines 'Dead slow ahead' in order to open the stern and to keep both vessel wings clear to avoid the contact. The Manoeuvring Vessel's port side wing railing touched the Mother Vessel's starboard side bridge wing searchlight causing it to be detached from its position.

Throughout the operation, the master and the pilot of the manoeuvring vessel stood on the port side but inside the fully closed bridge, which precluded any direct communication between the ships.

Lessons Learned: During STS operation it is crucial to establish good communications between the vessels with a back up method to be agreed in order to avoid same incidents in the future. It would be also a good practice during manoeuvrings for STS operation searchlight to be secured inside the bridge wings to avoid damage.

CHIRP Comment: The causal factors in this incident are the poor levels of communication between the ships and no appropriate agreed plan of action, nor a contingency plan to correct unsafe conditions. Owners should also ensure their masters have been trained to handle ships in these close quarter situations. Masters should ensure:

- (a) the fenders are fit for purpose and advice given on their correct positioning, and
- (b) tugs have the required Bollard pull. Best practice guidance can be found in the "Ship to Ship Transfer Guide" published by Witherby Publishing, with authors being ICS/CDI/OCIMF/SIGTTO.

WORKER TRAPPED INSIDE CLOSED TANK

Report Text: An AB closed the hatch cover of a ballast tank whilst a painter was still working inside the tank. Lessons Learned: Ensure that personnel involved in ballast tanks maintenance are fully aware and implement strictly the Company's procedures including:

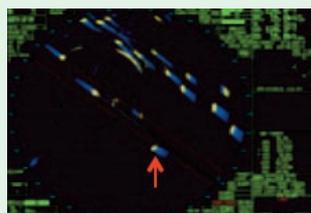
- A team leader should be appointed who should confirm and report implementation of all safety measures prior to entry and during the works in the tanks.
- An effective communication system should be maintained between personnel working in the tank, deck personnel and bridge OOW.
- Entry time, persons entering and coming out should be reported/recorded.
- Entry should be only permitted under valid entry permit.
- Initial and repeated atmosphere checks should be carried strictly as required, by a responsible officer.
- Strict implementation of the PPE requirements.

CHIRP Comment: The lessons learned from the report are valid. The industry continues to see unnecessary loss of life whilst personnel are working in enclosed spaces, despite regulators raising awareness of the risks that have been well advertised for many years. IMO Resolution A.1050 (27) has guidelines on entry into enclosed spaces and the MCA publication MGN 423 (M) Entry into Dangerous Spaces should be read in conjunction with (Entry into Dangerous Spaces) Regulations 1988 and chapter 17 of the Code of Safe Working Practices for Merchant Seamen. Note also the MAIB report on the SUNTIS published August 2014. Also MAIB Safety bulletin 2/2008 following the loss of lives on Viking Islay, Saga Rose and Sava Lake. P&I Clubs have also published comprehensive information on this subject e.g. The Standard Club.

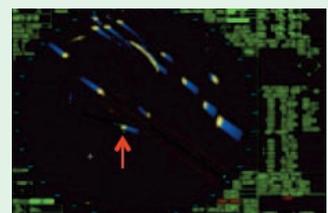
DISREGARD TO TSS MALACCA STRAIT

Report Text: I would like to share with you an example of disregard for COLREG. My vessel was proceeding in SE bound traffic lane in Strait of Malacca TSS. At around 0830 UTC a vessel was detected by radar ahead of us and proceeding against the general traffic flow in NW'ly with AIS data of the contravening vessel – seen as target 'A' on target list. Our position was approximately 02–18N 101–49E as it can be read from radar screens. Fortunately there was no direct risk of collision. We kept monitoring the target until she was past and clear.

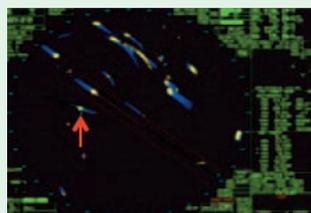
The enforcement of regulations in Malacca Strait is still poor. VTS centres along that busy water lane do seem to ignore most of violations. The approach to requirements is still quite relaxed. The big improvement though is visible in Singapore Strait. That should happen also in Malacca Strait. I am attaching pictures presenting the situation every 5 minutes, starting at 08:31:30UTC till 8:48:30 UTC.



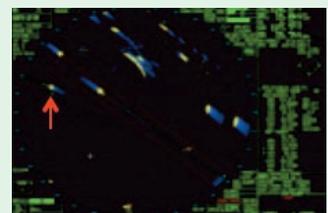
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CHIRP contacted the third party ship owner concerning one of their fleet vessel's apparent disregard for compliance with the COLREG, the intention was not to apportion blame but to help establish lesson learned from such reports. The company Superintendent went on board the vessel for investigation and subsequently shared the lesson learnt across their fleet. Their masters were reminded to strictly comply with COLREG to prevent similar event recurrence in the future.

CHIRP Comment: The report highlights serious and dangerous rule breaking behaviours. The ship manager's Operations Superintendent has responded well and can be complimented on the action taken after visiting the ship. The lack of challenge by the VTS provider means there is little pressure to ensure compliance with the COLREGs and the adoption of the ordinary practice of good seamanship. Wherever the location, TSS Authorities should better advertise the assistance they can provide shipping in the area given similar situations. Reporters are also advised to report similar situations directly to VTS centres at the time if the vessels can be positively identified in order that VTS centres have the opportunity to advise the vessel to comply with requirements and avoid a continuing dangerous situation.

TUGBOAT EQUIPMENT FAILURE DURING UNMOORING OPERATIONS

Report Text: During unmooring, the forward tugboat was unable to pull due to a defective winch brake. The master took the initiative and instructed the pilot, who was unable to react to the situation, to release the tugboat, ordering it to push on the other side. Unmooring was carried out under a strong current.

Corrective Action: A review of the Mooring/Unmooring risk assessment and job hazard assessment was undertaken.

Lessons Learned: Mooring is a risky operation involving a number of various and fast changing parameters and factors. Therefore, the ship personnel should be well prepared not only to properly implement the safety and risk control measures already established by the Company but to assess and react effectively to any new hazard that might occur.

CHIRP Comment: The report demonstrated good leadership by the Master but it also highlights the importance of a good working relationship between the pilot and the bridge team.

POWER LOSS

Report Text: There was a loss of main power for approximately 10 seconds whilst the vessel was manoeuvring towards the berth. From the investigation that was carried out the following was noted:

- At the time of the incident two diesel generators were in operation and the third one was in standby mode.
- Based on the vessel's records (Alarm Data Logger) the engine crew were not monitoring the flushing process in the fuel system, the clogging of the Auto back flush filter went unnoticed and consequently there was a lack of fuel supply to the diesel generators.
- The quality of the last fuel oil loaded was classed "AMBER", as per LR FOBAS Sample Analysis; the CCAI was above specification.
- Last inspection of filtering system was three months previous. As per PMS, filtering inspection interval was conducted every six months.
- The 3rd Diesel Generator came on load automatically in less than 5 seconds after the main power supply was lost.

Corrective/Preventative Action: The incident report was circulated to all fleet vessels with an instruction for it to be discussed with the onboard engineers and electricians. Upon receipt of the report the Chief Engineers of all fleet vessels were tasked in future to check with the subject bunker (West African) supply terminals and confirm that their tanks and products are clean and tight. The incident report will be presented and analysed by engineers during the in-house ERM training courses.

Lessons Learned:

- Company's PMS system to be complied with and the filtering inspection should be carried out at least every six months as per PMS.
- Scheduled maintenance of the filtering system to be adjusted to a lesser time in such cases where the bunkers are known to be off-specification.
- Good working condition of the Diesel generators shall always be ensured.

CHIRP Comment: The ship manager should have advised the ship to take extra and special precautions in the event of off-specification bunkers being loaded, these instructions should be in the SMS but in the event this is not the case, written instruction to the ship should have been provided. Owners could also encourage the fuel suppliers to use a service such as LR FOBAS, to assist them improve the quality of fuel.

TRIPPING OVER TOWING WIRE DURING MOORING OPERATIONS

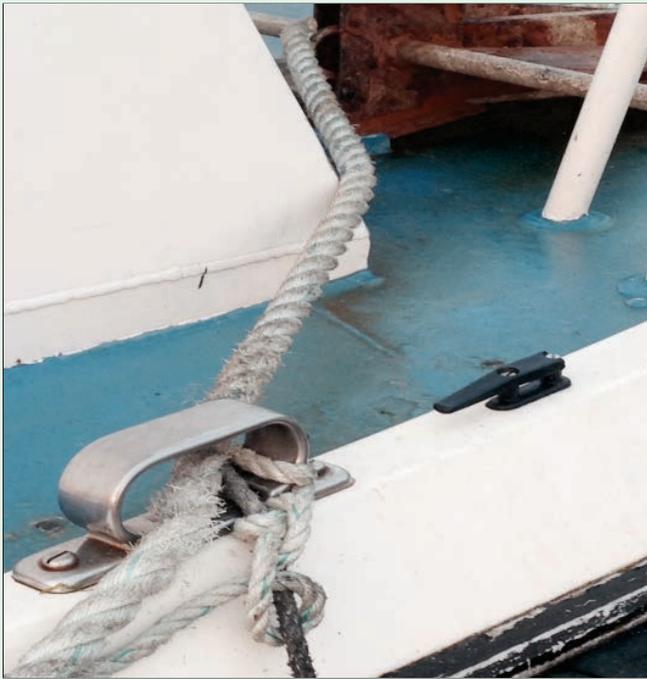
Report Text: During mooring operation the 2nd officer in charge at aft mooring station tripped on the aft towing wire that is permanently deployed from storage drum to aft chock. No warning marking to draw attention existed for this obstruction on deck. The underlying cause was the lack of proper marking

Lessons Learned: Permanent fittings which may cause obstruction and which may be dangerous should be marked Black and Yellow alternate stripes to draw attention. Where necessary, warning notices should be posted or some Head-height obstructions may need to be padded. Master to discuss the above during next SCM and request the crew to inspect more carefully the ship's compartments having in mind the above and report to their supervisors proposals for improvement.

CHIRP Comment: Company superintendents should ensure the warning marks are in place and maintained. The risks of falls onto steel decks can be seen in a recent IMCA Flash 14/14 in which a crewmember tripped, lost balance and fell forwards, hitting the deck. He instinctively raised his arms in an attempt to lessen the impact of the fall, which resulted in him sustaining two broken elbows.

SAFETY CONCERNS OF DOMESTIC FERRY

Report Text: The reporter was a regular passenger travelling from "A" to "B" which crosses from the mainland to a small Island.



Prior to boarding one day, it was noted that the relief ferry was being secured to the slipway on the island using only a frayed bow line as a spring, the vessel being left powering against the spring while passengers disembarked and embarked.

The reporter's concern is that the rope might break, or the vessel might pull a ring out of the pier as considerable power is used to hold the vessel against the slipway, especially if the tide is ebbing hard, or a strong offshore breeze is present. The reporter's concerns are compounded by the fact that the skipper does not stay at the helm during loading and unloading. Of lesser concern is that no safety announcements are taking place, which is common on this route.

Lessons Learned: The crew could usefully be sent on a safety awareness course and then adequately supervised to ensure compliance with safety regulations.

CHIRP contacted the port authority. They are also the charterer of the ferry and they advised, the "Ferry" has been used as a relief vessel for the "Main Ferry" since 2007 and admitted the relief ferry is not completely adequate for the loading and unloading of passengers. The ferry operator's safety meeting considered whether 3 crew are required to work the vessel safely so that the skipper could remain in the helmsman position at all times while loading and unloading of passengers. It was decided only the skipper and 1 crewman was sufficient because the crewman would come out of the wheel house door on the port side and walk round the bow before securing the boat. That means the skipper has a visual on the crewman at all times. Also there was a stern rope secured on the starboard aft bollard to secure the vessel at point. 2 ropes on the vessel, 1 spring and 1 aft secure the vessel. The starboard engine is kept in gear, ticking over to ensure there is no gap between the vessel and the slip, this is a must as it is the only way to keep the boat tight against the pier. The bow rope is used as a spring, which showed some light fraying on the outer part of the rope; the rope was

checked regularly and passed as fit for use. The pier rings were, as a result of a safety meeting, all changed to bigger and stronger versions. The safety announcements for passengers is claimed to be done on a regular basis.

CHIRP Comment: Whilst the management may claim a good safety record, there is an apparent lack of appreciation of the risk to the traveling public as identified by this report. The port authority was advised to read and understand the implications of the MAIB report 12/2009 on the Hurlingham. The ferry was secured to the pier using one mooring line at the bow, and the skipper had left the wheelhouse unattended with the engine in gear while he attended to the bar account and tidied up after the party. The stern of the boat drifted away from the pier, and the mate moved from his position on the pier, supervising the passengers disembarking, to manoeuvre the boat back alongside and attach two more mooring lines. No gangway was used and passengers were allowed to continue disembarking unsupervised while the boat was put back into position. Shortly after the stern was brought back into the pier, a gap opened up between the front of the boat and pier at the point where passengers were disembarking. One passenger stepped forward and fell into the gap. Despite an extensive search, he could not be found and his body was recovered further downriver. The chief mate received a custodial sentence of 15 months.

In the event the Maritime and Coastguard Agency (MCA) was to investigate a similar incident, they will take a very serious view on any breaches of duty and the absence of the ordinary good practice of seamen.

The port authority's attention was also drawn to the MAIB report 3/2005, which describes how a waiting passenger died after being hit by a mooring bollard that detached from the deck of the fast catamaran 'Star Clipper' when the vessel was being held alongside a tidal jetty using a single spring and ahead power.

The introduction of a relief ferry to cover that used in the main contract must not result in a reduction in the level of safety for the passengers and crew. The practice used by the master of the ferry indicates there may be an insufficient number of crewmembers for the operations. Although there will be a minimum manning level for the vessel, a risk assessment of the operations will confirm the appropriate manning levels and that may exceed this number.

STORIES FROM THE GALLEY

Report 1: The galley was unattended while the hot plates were switched on. Cause: Inadequate assessments of risks, Inadequate controls for safety protection.

Lessons Learned: The Company Lesson Learned Safety report dated 2008 "While the galley was unmanned the cooking plates had been left switched on" was given to the galley personnel. Never leave switched on galley apparatus (hot plates, pots, griddles, fryers, etc.) unattended as there is a risk of injury to personnel and risk of fire.

Report 2: Galley personnel were cleaning the galley without having properly isolated the power supply.

Lessons Learned: Officers and crew are reminded that Job Hazard Assessment (JHA) reports aim to improve the safety onboard and protect the crew from hazards involved in the onboard activities. It is therefore a safety need the JHA analysis reports: (a) to be communicated effectively to all personnel involved, (b) the preventive measures to be implemented during the onboard activities. Ensure that the appropriate JHA is made available to galley personnel.

INCORRECT MARKING OF MINIMUM FUEL FOR EMERGENCY GENERATOR

Report Text: A vetting inspector observed that the minimum fuel quantity, marked on the diesel oil tank of the Emergency Generator, was not correct, since it was less than the minimum required by SOLAS for minimum 18 hours operation of the engine, taking into account the required electric load. C/E changed the marking as per inspector's instructions which were, however, again incorrect since they had calculated the consumption at maximum load and not in accordance with the load stated in the load analysis.

Lessons Learned: In accordance with good practice the diesel oil tank of the Emergency Generator should always be kept almost full well above the minimum SOLAS required capacity.

CHIRP Comment: The marking as described in the report is questioned as not being good practice. Keeping the tank full, rather than containing just the minimum amount, is recommended.

AEROSOL SPRAY CAN IN GARBAGE BAG FOR INCINERATOR

Report Text: During garbage transfer to engine room for incineration, it was identified that two bottles of aerosol spray were found in the garbage bags.

Lessons Learned: Training to be organized onboard during next month on the "Requirement for garbage separation and storage and disposal" as per garbage management plan, including the following topics.

- Categories of garbage that can be disposed at sea (to avoid confusion no crew member is authorized to discharge anything into the sea without chief officer's permission).
- Categories of garbage that can be incinerated and garbage that MUST NEVER be incinerated.
- Assignment of duties: Responsible person for garbage generated on deck, at interior accommodation spaces and in engine room.
- Designated person(s) in charge of incineration records disposals in the Garbage log book.
- Ash from incineration of plastics is disposed ashore.
- Used cooking oil is collected in drums and incinerated.
- Oily rags should be incinerated the soonest possible as they are source of ignition.
- Batteries, expired medicines should be disposed separately to shore facilities.

CHIRP Comment: The lessons learned from the report and the actions taken are valid, the safety checks incorporated in the procedures for handling garbage appear to have been effective.

ENGINEER BYPASSES SAFETY LOCK ON INCINERATOR

Report Text: During operation of the ship's incinerator, the 3rd engineer supervised by the 2nd engineer bypassed the safety lock device and opened the door to add more garbage. They were not injured or burned from the flames.

Lessons Learned: During operation of the ship's incinerator, the 3rd engineer supervised by the 2nd engineer bypassed the safety lock device and opened the door to add more garbage. They were not injured or burned from the flames.

CHIRP Comment: A senior officer teaching a junior officer to bypass safety devices is a very serious breach of duty. The engineers were taking short cuts and through this rule-breaking behaviour they created a potential risk of severe injury to themselves.

GREASE TAPE ON WIRES

Report 1: Both ends of wire fall arrestors were covered with Denso tape with no ability to check the condition of the wire under the tape. In the second report the couplings on the ship's crane were covered by grease tape but when uncovered during routine inspections, they were found to be worn and corroded.

Lessons Learned: Grease tapes may provide protection where fitted, at the same time they may hide defects. Grease tapes should be removed from parts of couplings, hydraulic pipes and wires during the routine inspections so that the condition inside can be evaluated.

Report 2: The coupling on ship's crane were found worn/corroded during routine inspections. It should be noted that Coupling were covered by grease tape.

Cause: ineffective condition inspections due to presence of the grease tapes that covered the corrosion/wear.

Lessons Learned: Grease tapes may provide protection where fitted, at the same time they may hide defects. Grease tapes should be removed from parts of couplings, hydraulic pipes and wires during the routine inspections so that the condition inside can be evaluated.

CHIRP Comment: The real problem is not Denso tape on the splices preventing inspection but the inspection regime that may not take account of corrosion. The main issue is the need for a proper maintenance routine that looks past the Denso tape and reinstates or replaces it afterwards, if removal is the chosen method of inspection. There is no evidence of a big problem with corrosion on stays except on those steel parts that were left exposed, or more notoriously, were enclosed in plastic sheathing with an air gap inside.

UNSAFE WORKING STANDARDS BY TERMINAL STAFF WHEN FITTING CBM HOSE

Report Text: Shore personnel were using improper/unsafe equipment for connecting the cargo hoses at a CBM terminal.

Lessons Learned: Visitors, contractors and shore personnel boarding the vessel have to follow the Company's SMS requirements. They should always be supervised during their onboard activities by competent ship personnel who should ensure that safe working practices are followed in accordance with the Company's SMS and stop any activity if an unsafe practice is observed. PPE requirements are also applicable for them. Competency and working standards of third parties boarding the vessel should never be taken for granted. They should be closely monitored during their onboard activities, taking necessary actions to ensure compliance with safe working practices and Company's procedures.

CHIRP Comment: This ship's crew report is important; ensuring a safe working environment for all personnel onboard is a requirement of the SMS. The riding crew should be made aware they must comply with the ship's SMS and this should form part of the pre arrival plan. Once the management becomes aware of this risk at a terminal, they should raise their concern with the terminal and offer to help improve the operating standards and the quality of the checklists and equipment.

OIL LEAKS

Report Text: An oil spill was found on the main deck when preparing for arrival into port. Oil had leaked from a gasket on a cargo line. The ship was new, only four months old.

Underlying cause: Inadequate connection during construction. Ship builders and site office were informed through a guarantee claim, with the aim of enhancing inspections on the other new building vessels.

Lessons Learned: This incident also highlights the fact that a new-building vessel is in need of extra attention and careful monitoring during the first operating period after the delivery with the aim of confirming the proper and efficient operation of the vessel's system and equipment.

Report: Hydraulic leak was observed in the steering gear during a routine inspection, the cause was due a failure of a weld. The ship was new, only two months old. Ship builders and site office were informed through a guarantee claim, with the aim of enhancing inspections on the other new building vessels.

CHIRP Comment: The lesson learned is valid. There is a need for additional vigilance when supervising the building of a new ship. Extra attention and careful monitoring are then necessary during the initial period of operations after delivery in order to confirm safe and efficient

operation of the vessel's systems and equipment. A similar degree of care should apply to ships that undergo significant repairs.

MAN OVERBOARD FROM A TENDER

Report Text: Whilst disembarking from his small tender an elderly gentleman fell in to the water between his dinghy and a private river pontoon not connected to the shore. The gentlemen had been in the water some 15–20 minutes before managing to raise the attention of a member of the public. The member of the public was on his dinghy on his way to his own vessel when he heard cries for help. The elderly gentlemen was located in the water between his dinghy and the pontoon. The member of the public telephoned a local water taxi who he knew was operating in the harbour at the time who in turn contacted the harbour launch, however no party contacted the coastguard for assistance.

The member of the public managed to tow the casualty who was conscious around to an emergency ladder, which was located on the end of an adjacent harbour authority. However the lowest rung of the ladder was not deep enough for the casualty to get his foot on, the rescuer improvised by inverting the sack truck that was in his tender and securing it over a mooring cleat. By the time the harbour launch arrived at the scene the gentlemen was out of the water and stood on the pontoon apparently none the worse for wear. The harbour staff gave the casualty warm clothes and escorted him home and ensured that he was well before leaving him.

The casualty was not wearing a lifejacket and was wearing wellington boots which made his extraction from the water all the more difficult.

Corrective Action Taken: Speak with the owner of the pontoon and remind him of his H&S obligations which include the provision of an emergency ladder on the pontoon.

Review the locations, type and depth of the lowest rung of all harbour emergency ladders.

Remind the general public of the importance of wearing a lifejacket when afloat and general precautions to be taken when using your tender including the dangers of wearing heavy boots; the likelihood of cold water and possibility of being alone and with little support in the immediate vicinity in the event of falling overboard.

Harbour staff to be reminded to contact the coastguard in such an incident so as not to delay back up if required. An ambulance should have been called as a precaution and had the coastguard been contacted they would most likely have arranged this.

CHIRP Comment: Also note Royal Yachting Association's Safety Advisory Notices that can be found on the RYA web site. One theme they promote is the need for people to think what they are doing beyond the primary activity they are involved in. Also consideration should be given to the Recreation Craft Directive that new vessel designs and equipment must allow a person in the water to get out of the water unaided (In force from 16th Jan 2015).

DESIGN ISSUES WITH FREE FALL LIFEBOATS

Report Text: Ship owner to Shipyard. Please advise what is being done or has been done to date to address the problem with free-fall life boat. As brought to your attention previously, free-fall lifeboat is not in compliance with LSA Code Chapter IV 4.7.2.2 which calls for at least 650mm free clearance (see attached) in front of the backrest. Current distance is only about 150mm which can be fatal to any person sitting in that seat. We urge you to address this with the maker and class head office and implement corrective measure before vessel delivery. This is considered to be serious noncompliance that is not only extremely hazardous but can also result in vessel detention by authorities.



CHIRP was advised by the ship owner that 4 freefall lifeboats are designed and built not to the LSA Code but were type approved by one Classification Society before bought by the ship yard, then approved by a second Classification Society as the new building surveyor. The yard installed the head strap on two vessels. The second Classification Society claimed the design was type approved as when boat is launched the person occupying the controls seat will be facing aft so should be satisfactory. **CHIRP** was advised that after reconsideration by a senior surveyor at the second Classification Society and a PSC inspector, the arrangement was non-compliant. The manufacturer and first Classification Society that gave type approval were reviewing the case.

Lessons Learned: Owners are demonstrating the value of careful testing of all equipment installed on a new build ship. Always conduct a full risk assessment of the operations and ensure the risk is managed to be as low as reasonably practical. Despite launching of the free fall lifeboat during a trial the risk of fatality was not identified. Do not assume the Classification Society certification meets LSA Code minimum requirements.

The Flag state has advised “*The number of persons allowed on the Form E will be reduced by one and the seat immediately aft of the releasing gear will be taken out of service until an engineering fix is complete.*”

CHIRP Comment: The ship owner has rightly shared their concerns over the dangerous design. The root cause appears to be the capability of the manufacturer and the Classification Societies in their delivery of safe life saving appliances. It is disappointing they have not shared the reasons why a fundamental error in design was not identified by their own rules and procedures and how they will ensure this will not happen in other lifeboats. Owners should not assume a Classification Society's approval is always correct and appropriate and crew should check their lifeboats on board to ensure there is no similar design fault that could result in a fatality.

LOST – THE ORDINARY PRACTICE OF GOOD SEAMANSHIP.

CHIRP has seen an increasing number of reports where there has been exposure to potential risk and hazardous incidents. These could so easily have been prevented if those involved had adopted the ordinary practice of good seamanship. The master's role in establishing a good safety culture onboard is important but it is not the role of one person. For example, the OOW oversees the safety of crew on deck during times of bad weather and warns any crewmembers on deck in the event of changing course and the possibility of heavy seas on deck.

The following are extracts of reports we have received:

Report 1: During bad weather, the bosun without informing anyone went onto the main deck to drain the manifold drip tray.

Lessons learned: Seamen must respect the sea and fear it. If they do not, they do not remain seamen for very long. Company has prepared a safety poster with safety instructions during bad weather that was forwarded to all of the fleet vessels.

Report 2: Atmosphere in the paint locker was hazardous because the natural vent and the access door were both closed.

Corrective action: Post a warning sign to make sure the paint store is well ventilated before entering. Lessons learned: Atmosphere in a paint room may be dangerous. Ensure that the space is well ventilated before entry.

Report 3: During a maintenance job in the engine room the 3rd Engineer left a bilge grating open. He returned soon after and inadvertently fell in the unguarded opening, luckily sustaining only light scratches. It was a short cut that was an improper attempt to save time and effort.

Lessons learned: All openings through which a person might fall must be kept closed when access to the space below is not required. Also, when opened it shall be appropriately fenced and, where practicable, warning signs should be posted as required.

Report 4: After departure from the discharge port, the master noticed from the Bridge that the ventilation cover of the forecastle exhaust fan was open, which could result to possible flooding in the bosun store compartment in case of bad weather. Securing of vessel's weathertight doors, deck openings, ventilators, as well as loose gear, prior/upon vessel's departure from port, is an essential safety aspect and good seamanship practice. Proper securing and safe stowage of vessel equipment and material makes a significant contribution to achieving professional and effective safety and risk management, which should be continuously and carefully considered by all persons involved. Unsecured weathertight doors at sea can be a contravention of SOLAS requirements and constitutes a serious safety risk for the ship and those onboard.

Report 5: Despite the chief officer's orders, some paint drums were found unsecured during bad weather

conditions. Securing of vessel's equipment and loose gear prior to departure from the port and also verification when adverse weather conditions are expected, is very basic seamanship practice and an essential safety issue. Deviations may lead to serious accident and/or damage. It is important that officers and supervisors check and verify that all members of the crew follow their instructions, especially those that relate to safety issues.

THE URGENT NEED TO ADOPT A GOOD SAFETY CULTURE ONBOARD

CHIRP has seen an increasing number of reports where there has been an enhanced risk of danger due to seafarers taking short cuts and violating procedures. A strong safety culture onboard is one where such behaviours are treated as unacceptable and this safety culture is clearly seen during the planning and completion of all work. Emphasis should be placed on the use of toolbox talks and to adopting an attitude amongst fellow crew members of 'being your brother's keeper' or 'adopt a buddy' i.e. looking out for each other in matters of safety and use of safety equipment and mentoring of other members of staff, in particular those new to the working environment onboard.

The following are extracts of reports we have received relating to hazardous incidents, they reveal the danger of allowing a weak safety culture to exist without challenge.

Report 1: An Able Seaman (AB) was painting a high point at the bridge deck using a portable ladder that was not properly secured. The OOW observed the practice and did not warn the AB. Due to the movement of the ladder the AB fell but luckily was not injured.

Causal factors: Failure to follow

Company's Work Permit System (Working Aloft); the supervisor bosun failed to provide safety instructions for the work; OOW failed to stop the AB when he observed the unsafe condition.

Report 2: During maintenance of the hose-handling crane, an AB was standing at height without having fastened his safety harness.

Lessons Learned: During the work planning process, the officers and supervisors should always think/review/consider the potential hazards involved in the work activities, including the applicable PPE requirements, work permits and job hazard assessments. Then they should provide the necessary safety instructions to the crew prior to the commencement of the work activities.

Report 3: AB was working aloft marking the lifeboat's name without wearing a safety harness. The bosun was in attendance and the company's 'work aloft' procedures were not being implemented.

Lessons learned: It is important that the supervisor always include safety instructions when issuing work instructions.

Report 4: During a tanker vetting inspection it was identified that an AB on watch carried a non-intrinsically safe torch.

Lessons Learned: Check and confirm that all torches onboard are of the intrinsically safe type, approved by a competent authority. If private torches are onboard, collect and keep them in safe custody under the responsibility of the chief officer and return on signing off. The causal factor is the failure to administer effective safety checks before commencing cargo operations. This may be due to complacency or pressure to minimise the time taken on paperwork. Also, the supply of equipment to the ship when being used onboard in flammable areas should be identified and adopted in the procurement practices. Head office staff should not forget they have a role in the establishment of a robust safety culture onboard.

Report 5: Second Engineer and Engineer Cadet not wearing proper PPE.

Lesson Learned: Senior officers are responsible to ensure a safe working environment for the crew onboard, establish a prominent safety culture and lead by example on safety issues.

Report 6: The duty engineer went into the engine room to check an alarm during a UMS period; he was improperly dressed, wearing T-shirt, shorts and slippers. He justified his action stating that it was just a few minutes job. The causal factors are complacency and rule breaking behaviours through the personnel taking short cuts. Ship's personnel were reminded that PPE is provided for their own safety: use of proper PPE is not only a requirement but also a safety need.

Report 7: A duty engineer entered the engine room during a UMS period at night without activating the Dead Man Alarm.

Lesson learned: Discuss this incident with engine room personnel, pointing out that the ER Dead Man Alarm is fitted for their own safety. It should be used at all times when attending the ER during UMS periods. A warning/guidance notice was prepared by the company and posted at specific locations for personnel guidance. Failure to properly use the safety procedures on the vessel may lead to a serious personal accident.

Report 8: Engineer cadet was trying to cut rags on the grinding machine.

Cause: inadequate safety familiarisation, supervision and guidance.

Lessons learned: Unauthorized use of a machine often results in accidents or damages, often because the person using the machine has not been properly trained. It is important that the ship's responsible personnel should put in place the necessary protection against unauthorized use. Heads of departments should ensure that crewmembers do not carry out work activities unless they are planned and/or discussed with their supervisors. Ship's personnel should never use ship's machinery, tools and equipment unless they are authorized by their supervisors to do so, or have direct responsibility to operate, inspect and maintain specific machinery or equipment. Cadets must not be allowed to operate machinery and equipment unless they have permission from their supervisors/trainers and they are properly supervised during the activity.

CORRESPONDENCE

MARINE OPERATING AND MAINTENANCE MANUALS

A Chief Engineer Officer & PhD Research Student wrote to **CHIRP** in response to Maritime FEEDBACK 35 where it was reported after 10 years, there had been no improvement in the standard of Marine Operating and Maintenance Manuals.

There are a number contributing factors towards a seafarer's reliance upon operating and maintenance manuals: failure of training and certification to keep pace with the rate of change of technology; rapid movement of Officers through ranks; reduced staffing levels, etc. Such factors contribute towards a knowledge gap and the absence of a short-term solution to such factors will ensure that procedures remain critical throughout a seafarer's career.

Reliance upon procedures emphasizes the need to properly understand the way in which seafarers utilise operating and maintenance manuals. It has long been established through academic research that operating and maintenance procedures need to serve three primary functions: selection, inference and switching (from instruction to task). These basic functions are underpinned by complex processes, which either promote or mitigate human error.

Non-seafarers often prepare the ship's operating and maintenance manuals, they may perhaps have an in-depth knowledge of their own equipment but have little understanding of technical communication, task analysis and level of seafarers' prior knowledge [STCW]. This leads to a failure of both user navigation and comprehension of the procedure. There is no immediate communicative feedback to the writer, so procedures are always a negotiated meaning and don't necessarily translate to what the writer thinks is being communicated. Alternatively, there are manuals produced by specialist technical authors with little system knowledge other than that passed to them by the manufacturer (often in a foreign language). These manuals tend to be very aesthetically pleasing with a high degree of graphic design but of poor technical content.

My current Doctoral research was triggered by the earlier **CHIRP** report, "Marine Operating and Maintenance Manuals – Are They Good enough?" Commencing research in 2010, it became clear quite quickly that although standards and guidance's exist, none address the critical questions of supporting systematic thinking (filling the knowledge gap) and the mitigation of human error. The answers lie within an eclectic body of research spanning risk analysis, technical communication, philosophical theories of semiotics, cognitive loading, constructivism and many other such subject matters considered outliers within the maritime professions. In early 2013, a pilot study was conducted using two groups of seafarers to validate two rule-based error-provoking markers identified through literature review. These results proved promising and with

the main study scheduled later this year, it is hoped that 2015 will add some clarity to the issue.

Standards of operating and maintenance manual content is one issue, regulatory failure is another! The IMO Maritime Safety Committee circular MSC.1/ Circ. 1253 "Shipboard Technical operating and Maintenance Manuals" states that the enforcement of accurate and up to date operating and maintenance manuals could be achieved through the mechanisms of the ISM Code. This is a wholly reactive measure and without a clear regulatory foundation, burdening shipping companies with such a responsibility is an unfair and ineffective strategy of self-regulation. The circular further recommends IACS Recommendation 71 is used as a model for shipboard technical operating and maintenance manuals. Recommendation 71 however was not without its problems proposing ISO 8779 (a standard for the use of polyethylene pipes for irrigation) as a guide for document mark up language. After 14 years in circulation the error was eventually identified and corrected. This might have been an innocent typo, but contemplate a different scenario and such an error in a torque setting might lead to an entirely different set of consequences. It does however serve to highlight how easily an error may penetrate multiple layers of editorial governance, even through the scrutiny of the IMO.

There are currently very serious issues of control associated with regulators failing to ensure that operating and maintenance manuals are fit for purpose when issuing machinery certification. The 2012 NOMAD project commissioned by 14 EU member states examined the noise-related content of instructions supplied with machinery offered for purchase in the European Economic Area (EEA). The project reviewed 1,500 sets of instructions within 40 machinery groups from 800 manufacturers. The information in these instructions was analysed to determine compliance with the European Machinery Directive, and assess the quality of information. The report concluded that the general state of compliance of machinery instructions was found to be very poor: 80% of instructions did not meet legal requirements. In fact, the report further stated that 8% of the documents surveyed were not even in an official European Community language. One may be forgiven for questioning the competence of EU authorising bodies for presiding over such an industrial level of failure.

To supply inadequate operating and maintenance manuals is as dangerous as supplying faulty tools. Incidents such as the Isle of Arran, P&OSL Aquitaine, CSL Pacific and the Arco Adur are testimony to this. However, with a lack of validated submissions for the IMO to consider and failure to regulate the current standards of operating and maintenance manuals, perhaps we need to accept that (from seafarer to delegate) there is a collective responsibility to bring about change.

Maritime FEEDBACK 35 serves as an excellent reminder that after 10 years, the consequences of the international community's failure-to-act, as always, falls squarely on the shoulders of the seafarer.

CHIRP Comment: The author of this letter through IMarEST submitted an information paper to the IMO SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING.

November 2014. Now available online from the IMO web site “HTW 2-INF.3 – Human Error Controlled Language in Operating and Maintenance Manuals Supplied to Ships (IMarEST).pdf”

Please note all reports received by **CHIRP** are accepted in good faith. Whilst every effort is made to ensure the accuracy of any editorials, analyses and comments published in FEEDBACK, please remember that **CHIRP** does not possess any executive authority.

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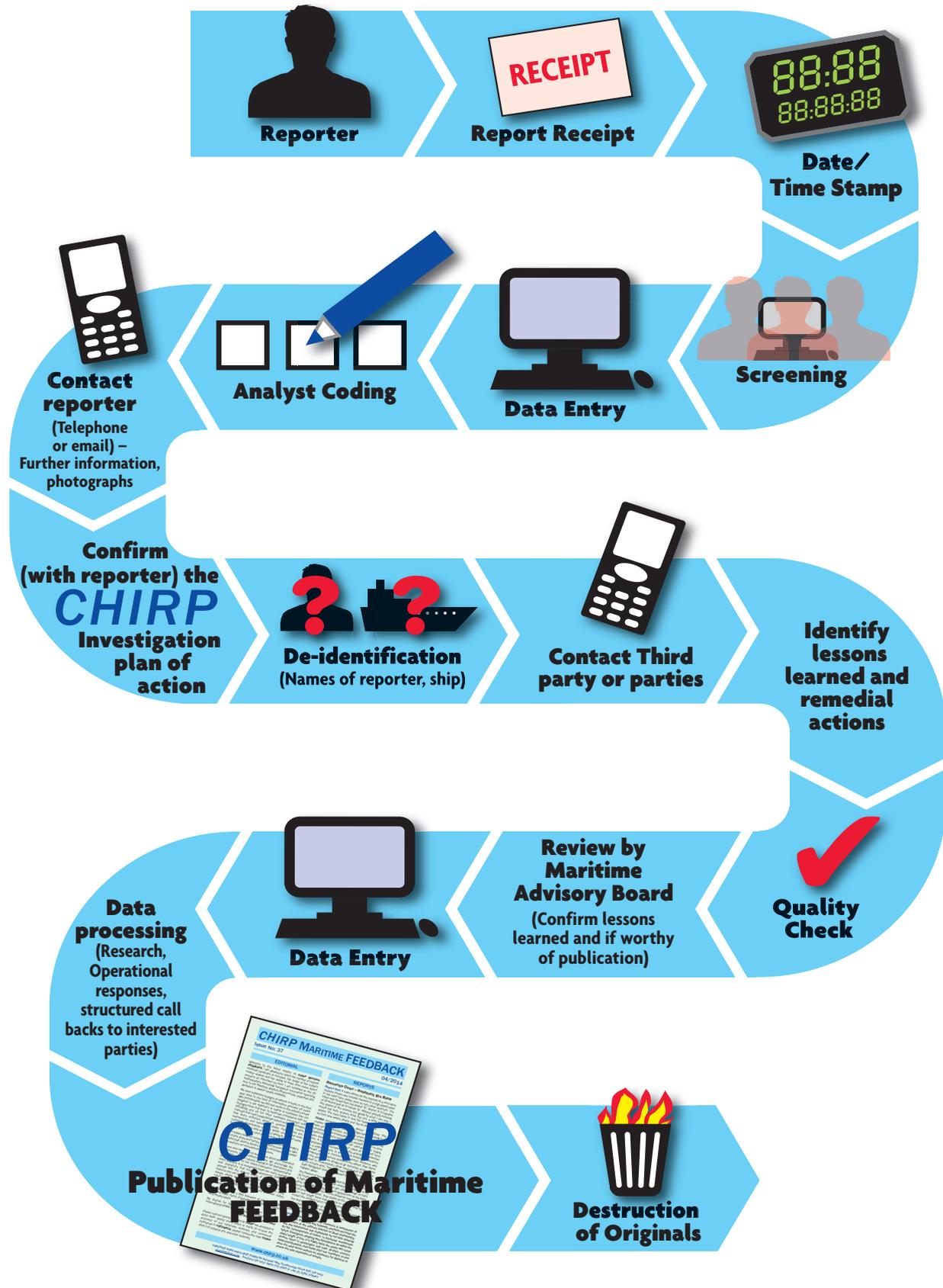
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- Only depersonalised data is used in discussions with third party organisations and the confidentiality of the reporter is assured in any contact with an external organisation.
- The report in a disidentified format will be presented to the Maritime Advisory Board (MAB). The MAB meets every quarter January, April, July and October. The MAB discuss the content of each report, they then provide advice and recommendations for inclusion in Maritime FEEDBACK.
- No personal details are retained from any reports received, including those not acted upon. After ensuring that the report contains all relevant information, all personal details of the reporter are removed with an acknowledgement email sent to close the report.
- After the return of personal details, **CHIRP** is unable subsequently to contact the reporter. The reporter may, if he/she wishes, contact the **CHIRP** office for additional information by using the report reference identification.
- The Maritime FEEDBACK publication is written by the Director (Maritime) with the assistance of volunteers from the MAB who are experts in the written article to be published. All published “Lesson Learned” are disidentified and therefore the possibility of identifying the Company, Ship or Seafarer reporting or involved shall be almost impossible. Finally the depersonalised data is recorded in a secure database at the head quarters in Farnborough, it can be used for analysis of key topics and trends.
- Disidentified data can be made available to other safety systems and professional bodies.

Director (Maritime) March 2015

Report processing flow – *CHIRP* MARITIME



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If your report relates to safety issues that may apply generally to seafarers, it may be considered for publication in Maritime Feedback unless you advise otherwise. Reports may be summarised. The name of the reporter, the names of vessels and/or other identifying information are not disclosed.

NO. Please do not publish in MARITIME FEEDBACK

YOUR POSITION ONBOARD OR IN ORGANISATION	THE INCIDENT	THE WEATHER
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	Time: Local/GMT	Direction:
	Vessel Location:	Visibility (miles):
	TYPE OF OPERATION	YOUR VESSEL
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LESSONS LEARNED – Describe the lessons learned as a result of the incident. Do you have any suggestions to prevent a similar event?

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