

Editorial

Once again, we feature a wide variety of different types of report in this issue, and we are grateful to all of our reporters.

One theme which clearly emerges is the need to be proactive about safety. The crew of a RHIB gave a thorough safety briefing prior to departure - nevertheless a passenger ignored the safety rules and could have been seriously injured. It is obvious that the Company have learned a valuable lesson which they kindly shared with us. We also hear from a former mariner who noted some unsafe practices and took action to inform the company concerned. The company, to their credit, took prompt action to rectify the situation.

This is one of several reports we have received over the years from retired seafarers, which is not surprising because seafaring is a unique occupation and the things we learn tend to stay with us throughout our lives. Nonetheless, it is always good to hear from former mariners, and we hope more of them will contribute.

Being proactive is also evident in a selection of reports about AIS and ECDIS offsets. When offsets exist, you do not have to accept them, and we offer some advice about what

can be done to eliminate them. There is no need to accept something simply because 'it is always like that'.

Another report in this issue gives an excellent description of the differences between **CHIRP** Maritime and another organisation we work with - ISWAN. Both are confidential reporting systems, but ISWAN concentrates on welfare matters, through their [Seafarer Help](#) helpline, whilst we deal strictly with safety. Occasionally, one of us receives a report which involves both safety and welfare, so we share the information and deal with our respective topics. You will learn how this works below. Unfortunately, the reporter left the ship before we were able to resolve some of the issues raised, but please be aware we can still help after you pay off, so we urge reporters not to break contact when they leave a ship.

Finally, we learn about a proactive port authority, a proactive crew which solved a communication problem, and a proactive bridge team which prevented a potentially serious mistake. These are all excellent examples of how common sense and vigilance can make our industry safer. If you have a similar story, please let us know.

Until next time - stay safe!

REPORTS ...

Lifting operations

OUTLINE: A report describing a lifting operation which highlights several areas where there is a high potential for an accident to occur.

What the Reporter told us:

Recently, I observed lifting operations being performed on a research vessel and on the basis of a single observation, the operation fell short of the minimum expectations under SI 2006 No.2184. The Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) regulations 2006. The deficiencies identified could lead to serious harm to the vessel's crew, third parties and/or pedestrians.

Specifically, four oil drums were lifted unsecured on a

wooden pallet using web strops. During the lifting operation the wooden pallet, which had not been designed for this purpose, began to break up. The area had not been cordoned off and the load passed over the single gangway access to the vessel which was not secure.

On the basis of these observations we contacted the vessel operator.

Lessons Learned:

The vessel operator reacted in a positive way, performing an investigation that identified failings against their SMS. They have since procured additional equipment which, if used correctly, should ensure that similar operations are performed safely in future.

The purpose of issuing this report is that it is the experience of the reporter that lifting of goods on wooden pallets using web strops that have not been designed for

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SUBMIT A REPORT –

CHIRP always protects the identity of our reporters. We are a confidential programme and, as such, we only keep reporters personal details for as long as we need to keep in contact with them.

ONLINE

Reports can be submitted online, through our secure encrypted online form.
<https://www.chirpmaritime.org/submit-a-report/>

BY EMAIL

Reports can be submitted online, through our secure encrypted online form.
reports@chirp.co.uk

this purpose is not unique to this lift. As an ex-mariner and having seen loads fail in similar situations, I find this deeply concerning.

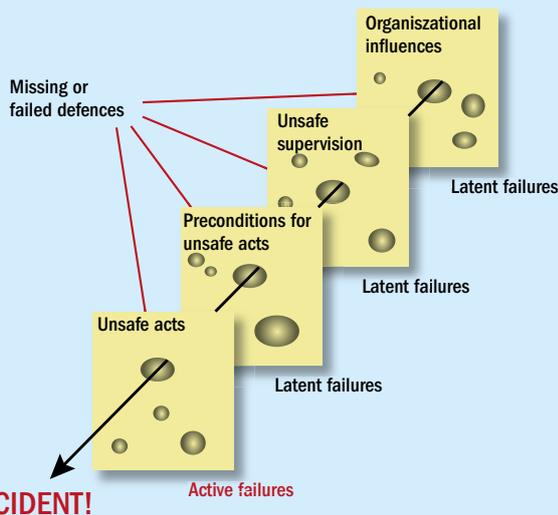
CHIRP Comment

Having discussed this report, the Maritime Advisory Board commented that the reporter raises several important issues and agreed entirely with the concerns, which deserve analysis and promulgation.

In terms of Near Miss reports, the lifting incidents received by **CHIRP** and other organisations such as the International Marine Contractors Association (IMCA) and the Marine Safety Forum (MSF), are almost entirely associated with routine lifting operations. It is rare that problems have been associated with a lifting plan itself, but rather with how it has been executed. It is also rare to receive a report concerning heavy lifts or complex operations – “routine” is the key word here.

Reading the report, you are led through a series of failures of the Swiss Cheese model (see diagram below) where each defence which has been breached, no matter how minor, could lead to an injury or worse. The more defences that are breached - the more holes in the Swiss Cheese and the greater the likelihood of all of the holes lining up leading to the increased probability of an incident.

Looking more closely at the report to identify the failings, the first part states that oil drums were lifted **unsecured** on a **wooden pallet** using **web stops**. That is three defences breached in less than a dozen words. During the lifting operation the wooden pallet, which **had not been designed for this purpose, began to break up**. The area **had not been barriered off** and **the load passed over the single gangway access** to the vessel which was **not secure**.



Swiss Cheese model showing breaches of defences with potential for an incident

A considered risk assessment treating each lift as an independent operation (i.e. not a generic risk assessment) and backed up by an on-site toolbox talk prior to commencement of an operation, should be able

to eliminate poor seamanship practices, incorrect lifting techniques and incorrect apparatus used for lifting. Training should also be taken into account. It is equally important that the location of the lifting is considered. In this case the load passed over a gangway and the consequences of anybody boarding as the load fails do not bear thinking about - simply due to the area not being cordoned off.

This is a clear example of one area where, if companies looked into their procedures sufficiently, it would uncover the complete panoply of missing elements of a safety culture, including procedures, training, lack of workforce empowerment, communications, incompatible goals, etc. In this particular case the company in question solved a particular problem but could have learnt so much more.

The Code of Safe Working Practices devotes all of Chapter 19 to lifting operations and lifting plant. This includes correct signalling, and information on regulatory requirements supplemented by Marine Guidance Notes. An extract succinctly sums up this report;

19.11 Lifting operations.

19.11.1 Every lifting operation must be:

- subject to risk assessment;
- properly planned;
- appropriately supervised; and
- carried out in a safe manner.

In short, ask whether a risk assessment and toolbox talk have been conducted prior to commencement – if not, stop the job until they have been carried out.

Useful reading:

The International Marine Contractors Association (IMCA) has several safety flashes relating to lifting operations these may be found [HERE](http://www.imca-int.com/alert/alerts/safety-flash/) (www.imca-int.com/alert/alerts/safety-flash/) and are replicated in the **CHIRP** reference library. IMCA also publish useful offshore lifting guidelines. The Marine Safety Forum also publishes [Safety Alerts](#) on the subject.

----- *REPORT ENDS*

Safety briefings are given for a reason

OUTLINE: A report detailing an incident where a wilful failure to fully comply with a safety briefing led to an injury to a passenger.

What the reporter told us:

I am the skipper of a Rigid Hulled Inflatable Boat (RHIB) which offers tours of the local area to observe the wildlife, fauna and flora. We give a thorough safety briefing prior to departure. On this particular occasion, our passengers were advised several times before the trip began and in the safety briefing on board, to sit toward the back of the boat as it was more stable.

We left the port in relatively calm conditions (sea state 2), travelling at a slow speed of 5 knots. As we approached the sandbar at the edge of the estuary there was an increase of swell to 1–2 feet due to the shallower conditions.

When we were almost over the sandbar, the last wave was much steeper/sharper so we slowed down just as the wave approached. Both passengers stood up as we travelled over the wave, resulting in one of them slamming back down onto the seat with force.

The boat was immediately stopped. The crew went to check on the passenger, who appeared to be in a dazed state and was complaining of sore lower back muscles. The skipper drove very slowly back into the bay, and the crewmember remained with the passenger making sure she was squeezing her hands and moving her toes. She was kept warm with blankets and was not moved. Following a VHF call to the operations base in the marina, an ambulance was called. Roughly 5 minutes after arriving back at the pontoon, a paramedic arrived. Following an examination, the patient was advised that the pain was just sore lower back muscles and to take some pain relief and to go home and rest.

Lessons Learned:

There should be a greater emphasis on customers staying seated at all times during the trip

Further Dialogue:

In further discussion between **CHIRP** and the reporter the following points were made;

- It was confirmed that the injuries sustained were simply diagnosed as muscular.
- The crew of the RHIB quite rightly gave basic treatment for shock and potentially serious spinal injury.
- It was agreed that the learnings could be applicable to any RHIB operation and indeed many other activities within the leisure sector where passengers are involved.
- There was uncertainty as to why the two passengers, who were in their early 70's, decided to stand up since they were told several times throughout the trip to remain seated at all times.
- It was emphasised that briefings are conducted prior to the excursions, and on slightly rougher weather days this includes suggesting that the excursion could be postponed to a calmer day. In this particular case the advice was given to postpone, but they insisted on going because they were a "fit couple".

CHIRP Comment

Having discussed this report the Maritime Advisory Board commented that the operator's concern as to "What do we need to do better in order to prevent this from happening again?" is both commendable and very valid. In a wider context, spinal injuries can be severe and the passengers in this case were fortunate that the end result was simply bruising.

In all operations involving passengers, their safety must be given the highest priority. **CHIRP** considers that there are potential additions to the safety briefing that may reinforce the request to remain seated. Firstly, a notice at the boarding point requiring passengers to remain seated. Although simple, the word "required" carries a completely different weight than requested. Additionally, where practicable, a notice on the rear of the seats,

or on athwartships seating may be beneficial. Both of these steps would reinforce the safety briefing(s). The possibility of the passenger signing a waiver was discussed but eventually it was thought that, from a passenger perspective, this would involve signing a piece of paper (with a lot of legal terminology) as opposed to fully reinforcing the danger.

A more difficult assessment may be to determine a passengers' suitability to undertake the trip under the prevailing weather conditions, or a company decision as to the weather being sufficiently inclement to postpone the trip. This is subtly different from a passenger stating that they are fit to undertake the trip. It may impact upon commercial considerations but does provide another level of safety.

The Marine Accident Investigation Branch (MAIB) has several reports related to RIB's and perhaps the most relevant to this report is 10-2017 involving a collision between two RIB's resulting in serious injuries to one passenger. The report highlights other incidents and gives information on published guidance and regulations. Spinal injuries are also discussed in the report, as are safety briefings.

----- REPORT ENDS

AIS and ECDIS offsets

OUTLINE: We have received several reports which outline position anomalies between a vessel's AIS and ECDIS, and positions obtained from a PPU or by visual/radar position fixing.

What the Reporter told us (1):

Prior to getting underway, there was no error on the ECDIS displays. However, once moving, an error was evident. The position displayed on the ECDIS was observed to be lagging behind the visual and radar positions, with the lag increasing as the speed of the vessel increased. The AIS position replicated the ECDIS and both indicated a position approximately 160m behind the vessels actual position. This is not the first vessel with this issue.

Further dialogue:

CHIRP offered to contact the ISM managers of the vessel, but the reporter advised that the port had been in contact with their national administration who had flagged the report for a PSC visit should the vessel return. They had also forwarded the issue to the PSC authorities for the country of the next port of call.

What the Reporter told us (2):

Recently, I noticed that the AIS position of a vessel was out by approximately 20 metres. Once offsets were checked, the independent Portable Pilot Unit (PPU) showed the difference visually on the screen. AIS data indicated that the antenna was forward on the bridge front and 3 metres in on the starboard side.

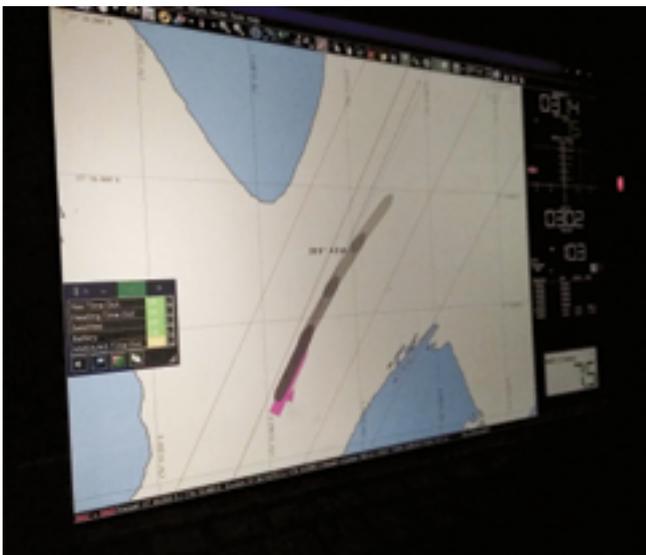
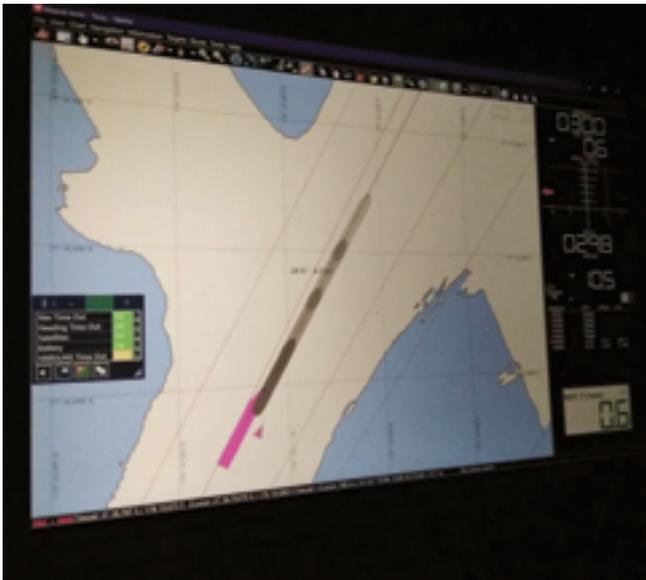
Upon inspection of the antenna plan, it became obvious that the error was due to differences between the offsets for the AIS GPS antenna and No 2 GPS antenna. No 1 GPS antenna was situated close to the AIS GPS antenna. The Second Mate showed me a selector switch, and the Captain

requested that it be switched to No1. Within seconds, the vessel's AIS position on my PPU changed and aligned with the independent PPU position. The Captain agreed to post a notice on the AIS1 to require the AIS external GPS input to be sourced from No1 GPS.

What the Reporter told us (3):

Upon arrival in port, I observed that the AIS data was showing the vessel behind the data presented on the PPU. Whilst passing a beacon, I asked the master to tell me where it was from looking at the ECDIS, "On the port bow" was the answer, but it was actually on the beam. After the vessel was secured alongside, there was no error.

I asked the Captain if it was possible to look at the settings on the GPS. We found under GPS SETUP, a section called GPS SMOOTHING which allowed for data entry. The "Position" was set at 20 seconds, "Speed" at 30 seconds and "Average Speed" at 120 seconds. The master reset them all to zero and confirmed that the result had been effective with accurate positions displayed following departure.



PPU showing GPS smoothing (top) with vessel "lagging" and smoothing removed (bottom)

This type of error has been reported before, but at those times there was no assistance from the Captains involved.

CHIRP Comment

The Maritime Advisory Board commented that these reports raise several issues including some apparent common failings such as an over reliance on ECDIS. Clearly it is vital that the correct data inputs are always utilised.

Of note, the antenna height must be input correctly, and the bridge team must be aware of which GPS is the master unit. From the second report, it is admirable that an antenna plan was produced in short order and that the issue was both identified and rectified.

In addition to the above, accurate positioning depends upon correct speed inputs, and any WGS84 offsets being input to the master equipment.

With respect to GPS smoothing, **CHIRP** issues a note of caution. The removal of all smoothing may well have solved the position lag in the third report, but smoothing does have a purpose. It can affect course over the ground (COG), course made good (CMG) and time to go to an alteration point (TTG). Thus, it is important to build in the necessary checks and balances for this vital equipment, as reliance on ECDIS and other electronic equipment can and will only increase – this factor will become increasingly important with the advent of autonomous shipping.

Equally there is a responsibility of those installing the equipment to provide advice and warning. Incorrect AIS offsets at the installation stage can also cause a great deal of confusion and may require a visit from a technician to access the pass code. For ship managers signing off an installation, there is a need for due diligence to ensure equipment has been correctly tested and that thorough operator familiarisation has taken place, perhaps enhanced with manufacturers training courses, commissioning engineers' instructions and demonstrations – because from this initial point, information can be progressively lost to subsequent operators as successive handovers omit small items of information.

Every ECDIS system has the facility to input manual positions, visual bearings and radar distances, and every manufacturer advises carrying out cross checks/comparisons with other methods of position fixing. In confined waters the Mk1 human eye is a very effective tool. If ECDIS shows a beacon on the bow but you can see it is on the beam something is not right, question it – don't always assume that the beacon is out of position.

Finally, **CHIRP** notes that ECDIS is a very clever and useful tool, but it is only one of many tools in the mariners' toolbox. A regular check on GPS, ECDIS, AIS etc., versus visual and radar positions should always be maintained. Overlay the radar with ECDIS and any discrepancy will become apparent. It should also be noted that AIS is not intended for position reference but for vessel identification.

A question for our bridge watchkeeping readers, when was the last time you entered a manual position into the ECDIS on your ship?

----- *REPORT ENDS*

Proactive port authority

OUTLINE: A report of a combination ladder deficiency and the follow up which involved both the port authority and the regulatory authority (Port State Control).

What the Reporter told us:

This vessel presented itself for a pilot boarding with the following deficiencies;

- The accommodation ladder was steeper than 45 degrees and was not secured to the ship's side, while the pilot ladder was not attached to the ship's side 1.5m above the accommodation ladder platform.
- The accommodation ladder was attached to the pilot ladder, but neither the accommodation ladder nor the pilot ladder were attached to the hull - despite all the necessary sunken fixtures being available.
- Catastrophic rust was noted in way of stanchions and fittings.
- Manropes were rigged incorrectly, had knots or splices in the length of the rope, and were fitted with spliced eyes and shackles on the end of the rope.

There was only a very limited spoken English on board, leading to communications difficulties when trying to rectify the situation.

The manager of the Port Authority wrote to the vessel's managers detailing the deficiencies and requiring them to examine the arrangement. The vessel was instructed to replace any equipment which did not meet the required standard (in this case the country's regulatory enactment of SOLAS V23).

The managers were informed that if the vessel presented itself at the port in the future with a deficient pilot transfer arrangement, then the pilot service would be refused. The managers were also advised that the port would not provide pilotage services unless there was unequivocal evidence showing that all corroded pilot transfer arrangement equipment had been remedied.

CHIRP note – this is an edited extract of the letter with names of port and country omitted.

Further Dialogue:

CHIRP was impressed with the nature of this intervention and further dialogue revealed the following.

At this port we started an initiative two months ago to educate Industry (charterers, exporters, shipping agents, owners, etc). In short, we advised that from January 01st 2019 we would take a more prescriptive approach, so industry needs to be aware that delays to shipping may result from inadequate pilot transfer arrangements. The two months lead time was in acknowledgement of the fact that charters may have been arranged already - basically, we are trying to get charterers in particular to consider pilot boarding arrangements in their vetting processes (assuming of course that they actually utilise a vetting process). The relevant advice to industry consisted of a letter to thirteen managers/charterers or their agents who have been found to be non-compliant in the recent past.

We now require the ship's pilot ladder certificate as part of our pre-arrival regime and this simple tool has already raised awareness.

Our approach is at all times to educate and assist as much as we possibly can, and the response from ships has been excellent to date, with vessels doing hot work at times to ensure adequate fixing points or stanchions. Many ships simply need a bit of seamanship advice which we freely offer. We have also purchased equipment (pilot ladder and magnets) which we will supply to ships to avoid delays. Equipment is provided on a 'you use it, you own it' basis.

CHIRP Comment

This is the first time **CHIRP** has seen a port authority acting in unison with the regulator and proactively trying to educate vessels in order to bring down the number of vessels with deficiencies. Although we are happy to promulgate this message, it is ground that has been covered before. The suggestion that certificates need to be provided as part of the pre-arrival information is a good initiative and is fully encouraged.

CHIRP is aware of the pilots in this particular country being very proactive in highlighting issues and bringing them to the attention of the regulator and the port authority. Whilst it is appreciated that the actual authority comes from the regulator (i.e. Port State Control), this report demonstrates their willingness to proactively interact with ports / pilots, to discourage poor practices and to take action.

Historically the tendency to deal with deficiencies was to use phraseology such as "The next time you visit we will..." This report demonstrates that when a vessel turns up ill equipped, this regulator is prepared to take immediate action. Hitting owners and managers in the pocket by delaying the ship will certainly get their attention and help change behaviours!

Reports being properly actioned so as to prevent a repetition might put an end to situations like the one illustrated below. In this scenario, the pilot actually placed his weight on the ladder and the ropes simply collapsed. Fortunately, this was whilst testing the ladder prior to disembarkation, but had this not been the case then the consequences might have been tragically different.



Deathtrap – pilot placed his weight on this ladder prior to disembarking and both side ropes parted!!

Of note – in the last few months **CHIRP** has received in excess of 30 pilot ladder and/or combination ladder deficiencies, so the topic is still “hot” and needs addressing. Another Insight article on the subject will be published on the chirpmaritime.org website in the near future.

----- *REPORT ENDS*

Heat and fatigue

OUTLINE: A report covering many issues, but primarily the story boils down to uncaring ship managers.

What the Reporter told us:

The report was initially received by the International Seafarers' Welfare and Assistance Network (ISWAN) who, with the consent of the caller, put him in contact with **CHIRP**. It involves several aspects including both seafarer welfare and safety/environmental issues.

Firstly, there were alleged MARPOL breaches with both oil and garbage being disposed of in a MARPOL Special Area, namely the Persian Gulf. **CHIRP** was asked for advice regarding this, (by the reporter through ISWAN). We responded with a breakdown of the regulations, direct to the reporter, whilst requesting more details of the location and nature of the garbage and oil that was discharged.

In the meantime, ISWAN were addressing other problems. The seafarer also mentioned that the vessel was in the Persian Gulf during August and for some time the generator had not worked and there was no air conditioning leading to a lack of sleep and fatigue. The seafarer requested that Flag State and the ITF be made aware - which ISWAN did. The vessel's Flag State investigated with the company who “seemed to be responding”.

CHIRP understands from the ISWAN/reporter dialogue that the crew were all signed off at the next port and although the reporter promised follow-up on the MARPOL issues raised above, this did not materialise. Discussions with ISWAN reveal that this is not uncommon – once a problem is partially resolved there is often no further follow up!

CHIRP Comment

CHIRP is grateful to the Flag State in question for their intervention without which the seafarers' suffering on the vessel would almost certainly not have been attended to. It is important to note that intervention of the Flag State should not have been necessary – any decent company would have addressed the issues well beforehand. This report goes to the heart of what bad operators get up to – quite simply, there is a complete lack of management responsibility and safety culture from top to bottom. But it also shows how several stakeholders can work together in this type of scenario. Further reports on these issues are welcomed by both ISWAN and **CHIRP** – If you do not report, then we cannot assist. ISWAN and **CHIRP** have a close working relationship and with the consent of the caller we may exchange reports of particular relevance. It is emphasised that both organisations treat reports in the strictest of confidence.

CHIRP notes that the fatigue and lack of sleep in this

report was purely heat related. Prolonged exposure can lead to heat exhaustion. A crew that cannot sleep cannot operate, and any fatigue is more likely to lead to a loss of concentration and potentially an accident. A vessel without air conditioning demonstrates many human element issues – latent failures come down to lack of spares, possible financial constraints, and an insufficient management commitment.

The International Maritime Organization has recently updated a Maritime Safety Committee Circular relating to Guidelines on Fatigue. [MSC.1/Circ.1598](#) supersedes the previous Circular MSC.1/Circ.1014.

The new guidelines include;

- Introduction
- Module 1: Fatigue
- Module 2: Fatigue and the company
- Module 3: Fatigue and the seafarer
- Module 4: Fatigue awareness and training
- Module 5: Fatigue and ship design
- Module 6: Fatigue, the Administration and Port State authorities

Administrations, seafarers, companies, naval architects/ ship designers and training providers are encouraged to take these guidelines into consideration when designing or modifying ships, when determining minimum safe manning and when developing pamphlets, video training modules, seminars and workshops, etc. on fatigue. Companies are strongly urged to take the issue of fatigue into account when developing, implementing and improving safety management systems under the ISM Code.

It is worth noting that the Maritime Labour Convention 2006 as amended does have a complaints procedure. Although intended to be used on board, the procedure does allow for escalation to the company, which must respond within a designated time frame. [Marine Shipping Notice 1849](#) gives further details for UK vessels, and other Flag States have issued similar guidance.

The environmental issues need to be highlighted – any company (or indeed on-board management) that deliberately violates MARPOL as alleged in this report, deserves to receive the full consequences for their actions. The company in question may consider themselves extremely fortunate that in this case the reporter declined to follow up, so **CHIRP** was unable to take the matter further.

Finally **CHIRP** and ISWAN both urge seafarers to fully follow up upon their reports since it is only when we get the full story that we are properly able to assist.

----- *REPORT ENDS*

Correspondence Received

Bridge/Engine Room communications

OUTLINE: A detailed report giving some feedback to the article published in Maritime Feedback issue number 52.

What the Reporter told us:

I was a master on a ferry approaching a berth – head in, with

control on the starboard wing. Difficulties were experienced in reducing the ahead movement of the vessel, and with a strong wind off the berth, the vessel was blown away from the berth towards a breakwater.

Communication between the engine room and bridge was by phone – one phone number for the centre console, a second number for the bridge wing positions. As a result of both the weather and the bow thruster, noise in the wheelhouse was loud. At the time, the manning consisted of the Master and Chief Officer, both of whom were on the starboard bridge wing.

Changing control to the port bridge wing, the Chief Officer heard the centre phone ringing and ran in to answer it. The Chief Officer was told that the port engine had de-clutched and to put the pitch on that engine to zero. The engine was then clutched in. The vessel subsequently berthed without problem (apart from raised pulse rates on the bridge).

This incident highlighted the problem of Bridge/Engine Room communication on this vessel. Shortly afterwards, a dedicated talk back system was installed by ship's staff with one microphone and speaker in the engine control room and three on the bridge (centre position and both bridge wings). All verbal communication subsequently used this system which allowed instant communication and encouraged feedback from both ends. I am amazed that such a simple system, which encourages inter-departmental communication, has not been adopted more widely. Even the person conning the ship could just press the button and say "Control Room we have a problem/delay, etc" without the need to pick up the phone. Many times afterwards, using the talk back system, technical problems were reported and heard by the entire bridge team. Had the talk back failed, then the phones were still available.

I have always felt that the incident published in [MAIB Report 18-2012](#) would have been less likely with a talk back system like the one we installed.

Physiologically, the act of pressing a button and speaking near a stalk microphone is far more effective, and far quicker, than passing your order to someone else to phone through, or hearing a message repeated by whoever answered the phone, especially at times of maximum concentration. The added bonus is that all the bridge (or control room) team can hear what is said, and are instantly briefed, so the chance of a misunderstanding is reduced. As with bow and stern door indicator lights it was, in my experience, a low-cost addition with immense potential benefit, and helped to "bridge the gap" between deck and engine. I served on the vessel until it left the area, and that one installation made for a far more cohesive team and allowed us to deal with problems more effectively.

As background to this incident, the vessel was a new build, deep sea ro-ro, converted to a ferry with a limited passenger capacity. She operated at a lighter draft than the original design, resulting in reduced astern power. A second factor was that the bridge wings (totally enclosed bridge), did not extend over the ship's side. When berthing, the master leaned out of the bridge wing window whilst reaching inwards to operate the two engine combinators and bow thruster.

The normal port arrival procedure was for the seaman on the wheel to leave once the master had taken over the con. The master and chief officer were then the only two people left on the bridge.

At the time of the incident the ship was approaching the berth starboard side to with a strong off the berth wind. The con was on the starboard side, master's head out of the window, port engine astern, starboard engine ahead. When it became apparent that speed was not reducing, both engines were put astern. However, this caused the stern to move downwind. When the starboard engine was put ahead to check the movement the sternway increased. Given the likelihood that the ship would end up on the nearby breakwater, control was changed to the port bridge wing (the danger side) which is when communication with the control room was established. Once the situation was resolved, the berthing was completed.

CHIRP Comment

It is agreed entirely that instant communication through a talkback system or similar is far more effective and allows for both closed loop reporting and understanding, rather than the possibility of miscommunication through a third party - even more important these days with multinational crews. The loss of control at a critical part of an operation could have extremely serious repercussions, thus instant communication is very much a necessity. It is important to note that we are still discussing the same communications issues today that we were discussing many years ago.

IMCA offers some useful guidance on the subject of [Operational Communications](#)

It remains true today that conversions are never ideal. From a good practice perspective:

- Who would allow a design where situations like this need managing in order to do the job properly?
- Hanging out of the bridge window to berth a passenger ferry is not an ideal solution.
- Lighter drafts and reduced astern power obviously impact upon manoeuvrability – thus the vessel was being run outside of the original design parameters and was therefore susceptible to problems which onboard staff were expected to manage.

Risk Management is the systematic approach to minimizing an organization's exposure to risk. A sound risk management programme includes policies and procedures that work together to identify, analyse, evaluate and mitigate risk. Management should consider these issues both in terms of the primary communications between the bridge and engine room, and when utilising change management for any proposed retrofit.

There is a concern that, whether the subject is a new build or retrofit of an existing vessel, mariners' expertise has not been fully utilised at the design stage – bridge ergonomics (including the subject matter in the report) is simply not being fully considered. The whole concept of a ship's design (or even part of it such as a mooring system) should be subjected to Human Centred Design analysis from the concept stage through to the retirement of the vessel. This requires human element expertise and, currently, shipyards do not have it.

For new build vessels, there is often a "standard" design for many types of vessel and there is often very little owner involvement since additional "extras" are

cost prohibitive. There are issues, however, which are worthy of further consideration. One of the concerns is that, as ships get bigger, the effect of windage becomes greater – this requires a different approach to berthing vessels and may require a change in the maximum environmental criteria by companies and ports for berthing vessels. Another issue is engine management – new ships are expected to be cost efficient with bunker savings which fully meet with the approval of shore management as a purely commercial consideration. This wonderful technology sometimes gives the latest generation of pure car carriers (high windage again) a dead slow ahead speed of seven knots. This requires a completely different mindset when berthing, and such a high speed is less than ideal when approaching a berth or locks!

----- REPORT ENDS

Best practice

An error corrected

Outline: Whilst under pilotage an error by the helmsman is picked up by both the pilot and the bridge team.

What the Reporter told us:

Recently, whilst piloting an inbound vessel, I gave a helm order of Port 10. The helmsman responded, “Port 10”,

but only put 5 degrees of helm on. This was immediately noticed by myself and the master, and in order to rectify the matter I said, “Port 10” and pointed at the rudder angle indicator. The master also corrected the helmsman at which time the helm was adjusted to Port 10 and the helmsman apologised.

CHIRP Comment

This is a very simple example but is worth highlighting since it shows that we also receive examples of good practice with a pilot and bridge team working in harmony.

We often talk about the importance of “closed loop reporting” when discussing communications. Repeating back an instruction (or in this case the helm order) so as to ensure that the message has been clearly received is very important. The underlying lesson therefore is always to double check by an independent means. Here, the bridge team did so, since both the master and pilot noticed the error and corrected it.

CHIRP also notes that the language being used is important – are both parties speaking in their native or second language and are the orders being given in “standard marine vocabulary”? These are important factors to take into account when considering the closed loop communications cycle.

----- REPORT ENDS



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