

Editorial

It is a pleasure to offer this 42nd issue of CHIRP Maritime Feedback as its new editor. My predecessor in this role, John Rose, has done an enormous amount to extend the publication's reach; I hope I can continue in the same vein.

We cover a wide spread of incidents in this issue. These all give us plenty to think about, and they reinforce some recurring lessons. They include the dangers of enclosed spaces, risks in traffic separation schemes, a faulty fire suppression system, and risks to exposed crewman on deck, to name a few. FAILURES OF SAFETY CULTURE ARE, AS USUAL, AT THE CENTRE OF OUR REPORTS.

In this first editorial, I would like to focus on an aspect of the Collision Regulations (COLREGS) which several of our reports highlight. In Rule 8 they charge us with the responsibility to take actions to avoid collision which are 'POSITIVE AND MADE IN AMPLE TIME', 'if the circumstances of the case permit'. Our actions should also be taken 'with due regard to the observance of good seamanship'. However, all too often, we hear of circumstances in which action to avoid collision is 'too little, too late'.

'POSITIVE ACTION IN AMPLE TIME' is at the heart of the COLREGS because it is a crucial means by which we avoid causing doubt in the mind of the Officer of the Watch (OOW) of the 'other ship'.

Reports

The Perils in Traffic Separation Schemes (TSSs)

Over 400 commercial vessels pass through the Dover Strait daily; the statistics for Malacca (where 4825 Very Large Crude Carriers (VLCCs) alone transited in 2013) are similar. Other choke points are all getting busier.

By definition TSSs are established where traffic density is high and navigation constrained. These are therefore places where the dangers of navigation are amplified. At CHIRP we are reminded by a considerable 'postbag' in the last quarter of this fact

What did the reporters tell us?

OVERTAKING IN A TSS. A VLCC heading north-east in the Sandettie TSS was overtaken at very close quarters (1-2 cables) by a container ship. This manoeuvre necessitated her passing F1 buoy, marking the separation line at a distance of about 50 metres. The manoeuvre took place at the entrance to the NE lane, where the VLCC and to an extent the overtaking vessel were heavily constrained by their draught. The container ship did not comply with guidance on the relevant chart and in BA5550 advising against use of the Deep Water Route (DWR) by vessels under 16 metres in draught, and to the dangers of overtaking.

Extracts from the information reported to CHIRP. The reporter commented: 'I was contacted by large container vessel bound for Hamburg making 21 kts (ship name) astern of me on channel VHF 16 & 6 stating he would 'squeeze' past me at entrance to DW route. I responded that I was a deep draught vessel and could not deviate from my course. On approaching Sandettie SW buoy with F1 buoy right ahead, container vessel contacted me again on VHF 16 to request I alter my course to starboard to give him a little more room, I stated that with his draught (13m) he should not be using DW route and

Think of it the other way round: you see a ship you judge to be the give way vessel getting closer, but you cannot see what she intends to do. Has she seen you; does she intend to get out of your way? Doubt and anxiety develop; should you stand on? Do these circumstances now necessitate action by you? Maybe the other ship has altered for you, but not by much; it's going to be a close Closest Point of Approach (CPA). Will this constitute a safe distance?

Officers of the Watch have all experienced moments like this; and there are suggestions they are becoming more common. This may be associated with lack of training, supervision, experience or concentration amongst many factors. It may also result from too much focus on electronic displays; these can dampen the visceral sense of peril which the sight of a ship on a steady bearing gives us.

Ask yourself, in a closing situation, whether your own intentions are completely obvious to the other ship? Actions which are POSITIVE and IN AMPLE TIME remove doubt. When doubt is removed, collisions are much less likely.

Where you encounter the opposite behaviour, please let us know. We can help disseminate the lessons. PLEASE ALSO CONTINUE TO SEND YOUR REPORTS ON OTHER CASES YOU KNOW OF IN WHICH LESSONS CAN BE LEARNT FROM INCIDENTS WHICH ARE NARROWLY AVOIDED.

Charles Style, Maritime Adviser

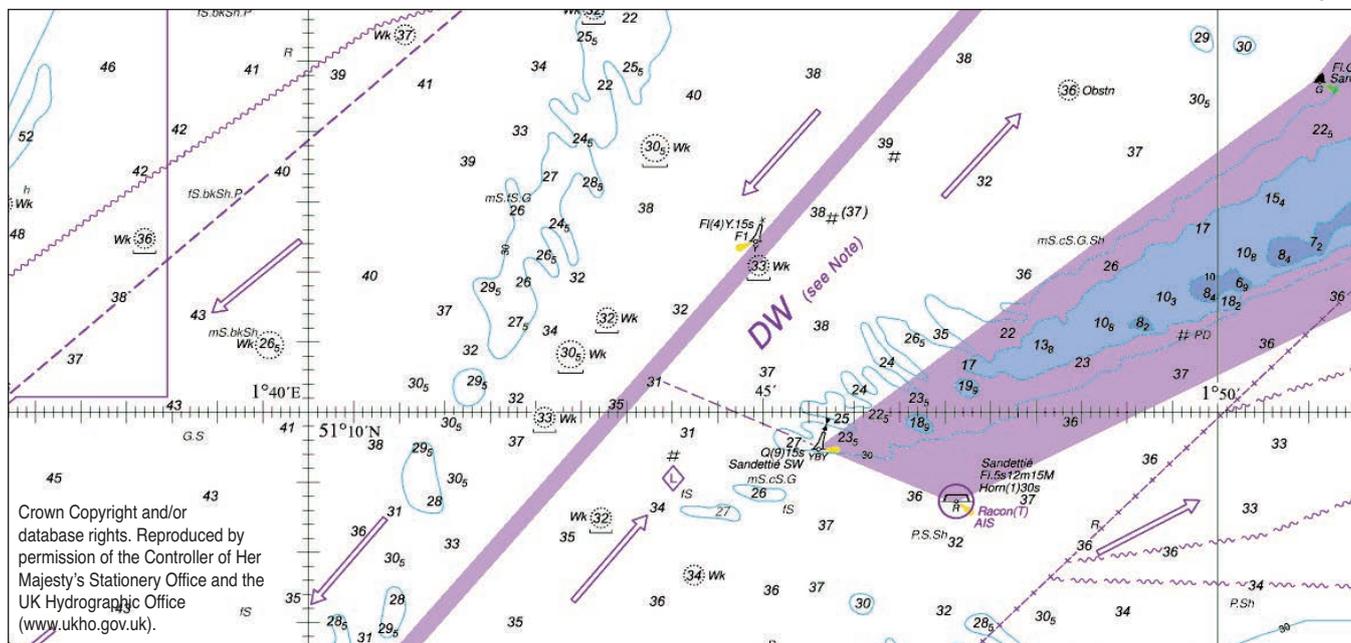
should pass south and east of Sandettie especially as two deep draught vessels were now using the DW route and also that he should not be overtaking in the DW route. I started my alteration into the DW route early to give a little more sea room as he passed very close on my portside. [Ship] was also extremely close to crossing into the SW bound lane when passing the deep draught bulk carrier ahead of me ...

Many NE bound vessels with draught less than 16m use the DW route against recommendations, and are not questioned/advised by Griz Nez Traffic or Dover CG. This may be OK when no deep draught vessels are in or approaching the route, but to continue this practice (and overtaking) when the route is in use is asking for trouble'.

The overtaking ship offered a different perception of some of the circumstances, but commented: 'we certainly realize that the situation was more or less self-inflicted. It should never have taken place as good practice would have been overtaking the VLCC on her starboard side, allowing own vessel to make the planned alteration of course towards starboard – or by slowing down until ample room available'.



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.



A very narrow entrance to the NE-Bound Sandettié DWR – note the position of F1 buoy. (Not to be used for navigation).

<p>SANDETTIÉ - DEEP WATER ROUTE (51°10'8N 1°45'4E)</p> <p>A deep water route forming part of the north-east bound traffic lane is established to the north-west of the Sandettié Bank. It is recommended that the DW Route is only to be used by vessels with a draught of 16 metres or more. Mariners considering the use of this route should take into account the proximity of traffic using the south-west bound lane and are recommended to avoid overtaking where traffic and navigation do not allow sufficient sea room and passing distance. If overtaking, then a safe distance must be maintained and Rule 13 of the Collision Regulations observed. The main lane for north-east bound traffic lies to the south-east of the Sandettié Bank and should be followed by all vessels whose draught is less than 16 metres and allows them to use it safely.</p>	<p>CROSSING TRAFFIC (51°05'0N 1°35'0E & 51°07'5N 1°41'5E)</p> <p>Mariners leaving the north-east going lane and planning to cross the south-west going lane, between the Varne (51°01'3N 1°23'9E) and F1 (51°11'2N 1°45'0E) light-buoys should be aware of heavy traffic in the south-west going lane, as well as ferry traffic, and alter course and/or speed at an appropriate point. For further details, see Admiralty Sailing Directions.</p> <p>CHANGING DEPTHS Ramsgate Channel, Gull Stream and Goodwin Sands are subject to frequent changes. Depths may differ from those charted.</p> <p>SANDWAVES Sandwaves exist in the areas shown; depths may be less than charted.</p>	<p>INTERINA</p> <p>Crown Copyright and/or database rights. Reproduced by permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office (www.ukho.gov.uk).</p> <p>CHART S</p> <p>DOVER</p> <p>EASTER</p>
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Chart recommendations: draught in the Sandettié DWR, and overtaking

The lessons to be learnt

It is the obligation of the overtaking vessel to “keep out of the way of the vessel being overtaken ... until finally past and clear”. The distance at which the container ship, at speed, passed the VLCC (see photograph) was far too close. There was no spare room. Though we do not have tidal information (height or stream) which may have influenced decisions, it is clear that the VLCC judged he had little or no space to starboard. The OVERTAKING manoeuvre should not have taken place. Moreover, interaction will almost certainly have been present; this can cause loss of heading control or – at the least – unpredictable rudder requirements to maintain course (dependent on ships’ sizes and speeds, and the depth of water in which they were navigating). Though not in itself a factor in the rights and wrongs of collision avoidance, it is a fact that a collision where this manoeuvre took place could have closed the strait to deep draught vessels bound NE, or at the very least obstructed the route, with major consequences.

Why did this happen? Was it inexperience? Was it a failure to think ahead? Was it a lack of prior planning? Was it red-line-itis (the tendency once a passage plan has been ‘entered’ to follow it regardless)? Whatever the cause, the container ship’s managers did acknowledge that she could or should have slowed down.

CHIRP Suggests

Passage planning and thinking ahead. The passage plan should normally conform with local routing and manoeuvring guidance (in this case applicable to use of the Deep Water Route), with alternatives available as appropriate. Plan the TSS arrival: how, when, with what bridge manning, including decisions on the Master’s presence.

Execution. Remember that a plan is a plan; a basis for change if real time circumstances demand. It is never a line to follow regardless, if ‘the circumstances of the case’ dictate something different. When approaching the entrance to a TSS – indeed whenever navigating in a TSS – OsOW (appropriately backed up with extra expertise to manage workload) should be planning how to ‘slot into’ the traffic flow from a distance; in the case of these two large ships from at least 10 nautical miles.

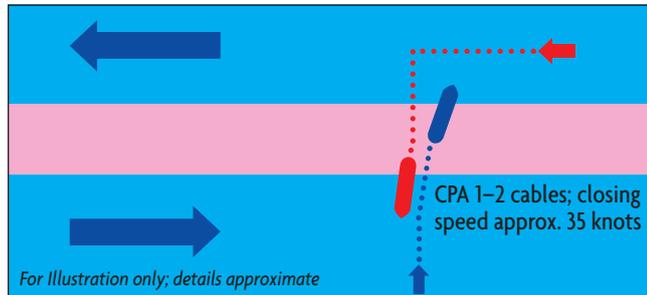
Slow down if in doubt, always remembering the ship astern. Things can happen very fast. Inexperienced OsOW can be sucked into close quarters situations that never need to occur. **Don’t overtake** if there is not ample time to the CPA and space to do so, within the available safe straight part of a TSS; if at all possible the overtaking vessel should only pass on the starboard side of the vessel to be overtaken in order to permit flexible options and maximise searoom.

Masters, by order book or verbal instruction, can clarify their expectations and calling orders with respect to speed and course alterations, overtaking, traffic density and the like. Use your eyes. Look up and out. Use electronic aids, certainly; but do not depend on them alone. Think from the other ship’s point of view. Are you own actions obvious and clear? Or might they induce doubt?

Doubt = DANGER.

Crossing in a TSS

Ships crossing a TSS pass nearly head-on at very close quarters (about 1 cable) at an approximate closing speed of 35 knots. See the reporter's comments below. The actual location is not revealed in order to preserve anonymity. We do not have an exact track chart, but the reporter's reconstruction shows the following:



Extracts from the information reported to CHIRP. The reporter commented: [Our ship] 'was crossing the TSS. Approx midway through the crossing the [other ship] left the far lane' (shown westbound in the diagram) 'to cross the near lane' (shown eastbound in the diagram). 'The [other ship]' steadied up on a course that led to her and the [reporter's ship] passing ... extremely close. The OOW on the [reporter's ship] had not plotted the [other ship] and failed to notice that she had altered until it was very late. Instead of taking action he called the [other ship] and use valuable time before the two V/L's passed less than a cable apart!'

The lessons to be learnt

Extreme care is required when crossing a TSS. The red ship has positioned herself close to the separation zone to minimise any crossing risk with the other ships in her own lane, and correctly lines up at 90 degrees to the general direction of traffic flow. We do not have details of other shipping. However the effect of her turn is to place her nearly head on with the reporters. The closing speed is 35 knots. The range closes rapidly. The blue ship's bridge team only notice the situation at the last minute, and then uses up valuable time on VHF radio with every chance of more, not less, confusion being created; the red ship was also very slow to react. Factors here may include overload on the bridges of both ships causing failure to appreciate the head on situation, and the choice by the red ship of the location for her crossing turn (for example if in the vicinity of a busy ferry route); this choice is at least a major, often the major decision when crossing a TSS.

CHIRP Suggests

Passage planning and thinking ahead. It is wise to plan a crossing manoeuvre where there is no reason to expect a higher than average number of other crossing vessels (for example at a known ferry crossing point). A good method is to identify a 'crossing window', marked on the chart in advance, within which the crossing should be conducted.

Masters should plan the moments and the circumstances in which they need to be on the bridge well in advance (see CHIRP's Suggestions, in the precious article).

Execution. When preparing to cross a TSS, think well ahead. Assess traffic in the lanes, and choose – if you can – a moment to cross where a gap is likely to open or where you are unlikely to create crossing situations with more than one ship at a time. **Throughout use the Mark 1 eyeball**, combined with compass assessments of bearing movement if

CHIRP Suggests – continued

compass azimuth rings are fitted. Use Automatic Radar Plotting Aid (ARPA) trial manoeuvre to help decide the moment of turn, if not clear by other means. Use relative tails to help quickly to confirm new CPAs after the turn. Use Automatic Identification System (AIS) in which other ships' course alterations change can become apparent almost immediately, and in which track data can assist in the assessment of a ship's destination and therefore probable intention. **Beware bridge overload**, especially in heavy shipping and complex situations. Both are almost certain to apply in TSSs. Brief and motivate lookouts, and bring an additional officer to the bridge if in doubt. **Be conscious of the speed at which events can unfold.** At 35 knots closing speed, two ships close by over 2 nautical miles in 4 minutes. Dangerous situations, increasing the risk of misjudgement or a mistaken understanding of another ship's intentions, can develop very quickly.

A General Comment on Traffic Separation Schemes

A third report outlined a situation in which, in a busy TSS, a ship in one lane experienced a CPA of 3 cables with a vessel in the other lane. In the absence of the identity of and comment from the other ships, the CHIRP Maritime Advisory Board decided not to make a full report of this incident in the Maritime Feedback. But the circumstances again emphasise the dangers of navigation in busy TSSs.

The key message is: **don't become too 'comfortable' in TSSs.** High densities of large, deep draught, heavy displacement ships – often at high speed, and often mixed with many other types of craft with differing manoeuvring characteristics – heightens the risk of collision. **Things can change and develop fast.** If, for example, we don't notice an unexpected speed or course change almost immediately, collision can become inevitable or nearly inevitable very quickly and at considerable range. A VLCC may take 5 nautical miles to come to a dead stop, require 2 nautical miles each of advance and transfer for a significant turn, take 20 minutes or so to apply astern revolutions from service speed, and become almost entirely unmanoeuvrable once committed to a first major manoeuvre. **Never relax vigilance.**

Overtaking

What did the reporters tell us?

The reporter's ship, a VLCC, sights an overtaking vessel astern at 3 nm closing on an apparent collision course in open sea. VHF calls elicit no response. The other vessel makes a small alteration to port and eventually passes the VLCC at a range of 5 cables, having crossed her stern.

Extracts from the information passed to CHIRP. 'The [other] vessel was overtaking at a speed of 18.7 knots (own ship 11.1 knots) and appeared to be heading directly for my own vessel's accommodation block. At this point, [the other ship] was approximately 3 miles away. Attempts to contact [the other ship] to ask for their intentions were met with no response. We engaged hand steering and put the second steering motor on in preparation for any required action on our part. [The other ship] was then observed to make a small course alteration to port, meaning she would pass close astern. Final CPA was 5 cables, which in open sea is both dangerous and unacceptable.'

The lessons to be learnt

A burdened vessel (in terms of the COLREGS) fails to make her intentions clear, thus introducing doubt into the minds of those on the latter bridge. Though the use of VHF radio is not generally recommended in collision avoidance, the fact that the reporter's VHF radio communication call went unanswered would have added further concern. Such doubt entered the mind of the ship being overtaken that she took steps to be ready for an emergency manoeuvre.

Safe distance. The overtaking rule (13) requires the overtaking ship to 'keep out of the way'. Even the passing distance (after course alteration) of 5 cables understandably seems too close to the reporter. This is often a matter of judgement and experience; a more objective way to think about it is to visualise what would happen if either ship had a machinery or steering breakdown. Would a close quarter situation be avoided by virtue of distance? If not, the CPA is too close.

It is usually bad practice, when overtaking another ship, to approach her from dead astern, if only because this may put the overtaker in the other's 'blind arc'. Again – always think: 'what if I/she had a machinery breakdown?' A CHIRP Maritime Advisory Board member, when reviewing this case, recalled an occasion at sea when a ship ahead experienced propulsion failure. Our expert altered course, overtook, slotted in ahead. His own ship then suffered a mechanical breakdown.

In this example it is not impossible that both ships were heading for the same waypoint, or converging on a likely point of shipping concentration. If so the overtaker should have been aware of the fact, and doubly alert. 'Red-line-itis' may also have been in play: 'follow the planned track regardless'. Likewise dependence on bridge electronics may have dulled the judgement of CPA which would have resulted from visual assessment.

CHIRP Suggests

Don't approach from dead astern when overtaking. Make your intentions clear in plenty of time. Avoid introducing doubt. Allow ample room. What would happen if either ship experienced a steering or propulsion breakdown? If a close quarters situation is the answer, too little room has been allowed. Keep a good lookout all round, including astern, and be aware of blind arcs. Monitor all vessels, especially those whose intentions are unclear.

Safety in Exposed Places

What did the reporters tell us?

FAILURE TO DON A LIFEJACKET DURING A SEAMANSHIP EVOLUTION. This report concerns a commercial yacht (2000 GT). The yacht's tender was to be moved away while the yacht shifted her anchorage berth, after a deterioration in the weather. The Mate decided to move the tender himself, and boarded her without a lifejacket. A crewman noticed the error, and a lifejacket was then worn; but not before the Chief Mate had boarded the tender in a 1.5 – 2 metre swell. Wind Force 6.

Extracts from the information passed to CHIRP. 'Whilst the vessel was at anchor ... the decision was made to move to a different anchorage around the headland ... Before we could move, the tender which was located at the stern needed to be moved alongside so that it can be

boarded and moved away whilst the vessel hauled anchor. 4 crew were present for the task to be completed and the Chief Mate explained what we were going to do. Once the tender was alongside the Chief Mate decided that he would board the tender and move away. The pilot ladder was to be used for boarding on the starboard side. The Chief Mate forgot to put on a lifejacket whilst he was holding on the pilot ladder waiting to board the tender which was riding up and down these 1.5 – 2 metre waves. Once onboard the tender one of the deck crew shouted to him that he needed a lifejacket whilst in the tender in this swell. One of the lifejackets located in the tender was used during the short passage around the headland'.

The lessons to be learnt

Seafarers with experience under sail have a good saying: 'the time to reef is the first time you think of it'. All too often, for reasons which are easy to imagine (laziness, urgency to get the job done, complacency, lack of imagination, lack of experience, shortage of crew), this doesn't happen. Very much the same applies to anchorages; if you start to think an anchorage may be becoming untenable, it almost certainly is.

This incident arose from a need to shift berth in worsening weather; it may well be that it would have never occurred if the move had been done earlier. Equally it may be that, when the need arose, there was urgency and limited time for planning. Thus the Mate, perhaps lacking a spare hand while the Yacht weighed, felt he needed to move the tender away himself. There is a sense of rush; the tender must have been moving fairly heavily against the yacht, but the Chief Mate boarded without his lifejacket. This was certainly hazardous. A procedure should be in place.

On the other hand there are signs of a positive safety culture in this account. A crewman felt confident enough to alert the Chief Mate, pointing out his error; and the Chief Mate responded. If there had been a generally lax culture, it may well be that neither would have happened.

CHIRP Suggests

Act EARLY in unexpected circumstances or worsening conditions. Most seafarers have slowed down too late in worsening weather, pressed on when he or she shouldn't have, weighed too late as an anchorage starts to become untenable, or (in a sailing ship) reefed too late. Many accidents and near misses at sea could be avoided by acting early. This does three things: a) it allows time for considered planning and execution without rush; b) it avoids the need to cut corners; and c) it minimises the need to do things in marginal or dangerous conditions. If urgent or emergency actions must be taken, keep cool, remember drills, and apply safety procedures. In other words, even in difficult conditions, proceed deliberately to the maximum extent possible. Promote a positive safety culture. There is a clear sign of a positive culture in this vessel, even if an initial mistake was made. Culture comes from the top; if standards are reviewed, explained, and followed as a matter of course throughout a vessel, they will be maintained and respected. The opposite is true. If the 'don't bother about that' culture is tolerated for a moment by the leadership, it will become the norm. The UK COSWP for Merchant Seafarers 2015 is crucial and readable on this vital subject. See the extract overleaf.

What does a SAFE WORKING CULTURE look like?

Extensive research has identified certain elements that contribute greatly to maintaining a safe working culture.

These can be described as:

- **clearly defined expectations;**
- **good communications;**
- **clear leadership;**
- **good planning;**
- **risk awareness;**
- **accountability;**
- **good safety culture; and**
- **effective knowledge management.**

These elements should be both put in place at a Company level within the safety management system and implemented on board the vessel by the master and crew. It is important that the entire workforce, from the most junior crew members through to the senior managers ashore, are involved in the development of these elements for them to be fully successful.

FROM THE UK CODE OF SAFE WORKING PRACTICES FOR MERCHANT SEAFARERS, 2015

Disregard of Basic Safety Standards Onboard a Vehicle Carrier

Observed from a tug nearby standing by a vehicle carrier of 52000 Gross Tons (about to leave harbour), a crewman onboard a vehicle carrier change a stern light lamp, disregarding basic safety principles.

Extracts from the information passed to CHIRP. 'Whilst we [in the reporter's tug] were waiting, we observed one of the crew members of the [ship] stand on the bulwark cap and reach overboard to change a lamp in the stern light which was above and inboard of where the crew member was standing. There was no life jacket or safety harness worn. Another crew member held the ankle of the crew member who was reaching out to the stern light. A slip or fall could have easily occurred resulting in certain injury'.

The lessons to be learnt

There is evidence here of a **lax safety culture and standards**. The ship was about to sail; it is likely that a pre-sailing navigation light check showed a malfunctioning stern light. Time was running short. A crewman was probably sent 'at the rush'. Was there time for proper consideration of the risk; was this sort of work within the ship's 'permission to work' framework? 'Working at Height'

The lessons to be learnt – continued

procedures were certainly ignored. Did the bridge know exactly when the man was over the side, and when back inboard.

It is to be assumed that there were no means of fitting the new lamp from inboard. Obvious design faults like this are becoming more common. Good culture and alertness were shown in the tug whose crew took the trouble to report this case.

CHIRP Suggests

Don't be rushed into dangerous practices. Most of us have 'been there': there's an unexpected problem, a tide or an ETA to make, a repair to be done quickly. These are the moments when corners are often cut; when it's vital to pause, think, and ensure the right precautions are being taken. **Maintain safety standards routinely.** If this doesn't happen, procedures are much more likely to be rushed or ignored when the unexpected comes up. If corners are regularly cut, ships' crews stop noticing, and an 'It won't happen to me' culture creeps in. **When the accident happens, it's too late to reconsider.**

AN ENGINEERING FAULT PRESENTS FIRE RISK

Exhaust Gas Heater Fire Suppression System – Large Ferry

What did the reporters tell us?

In the course of work to fit exhaust gas scrubbers in a large ferry, pipes serving the exhaust gas heater fire suppressant system had to be cut; pipes/nozzles were found to be nearly blocked and thinned. This would have prevented the system from working as designed in event of fire. The cause was probably leakage past isolation valves allowing seawater to enter the 'supply lines'. Salt then crystallized in the heat. The comprehensive report outlines remedial action.

Extracts from the information passed to CHIRP. 'Given the condition of the pipes and nozzles – had we had a fire in the exhaust gas heaters, it would have been very unlikely that the fire suppression system would have had any effect. The reason for the blocking of the nozzles is that it is suspected that the isolating valves on the fire main have been leaking past, allowing sea water to fill the supply lines and when reaching the hot environs of the exhaust gas heaters, the water has rapidly evaporated, leaving a build up of hard salts in the nozzles.

We are proposing some modifications to the fire suppression system: The nozzles and pipe-work will be like for like, but with a different routing to allow easier access for inspection in the future. Pipes and nozzles will be galvanised. New valves will be fitted to the fire main at the branch off of the supply lines. The original valves are 'globe' valves, we intend to change these for stainless steel ball valves.

Immediately after the isolating ball valves, we will fit stub pipes with a further ball valve fitted on each line. This valve will serve two purposes:

- (1) to check for any water leaking past the isolating valves and
- (2) to connect an air hose and blow air up through the supply lines and nozzles to prove clear. This will be put into the Planned Maintenance System as a routine (probably monthly) job. These ball valves will have plugs fitted in the outlets at all times when not in use. The valves will be fitted with clear signage as to their purpose.



Heavily obstructed pipes – Ferry Fire Suppression System

The lessons to be learnt

This comprehensive report detailed how a fault, which could have had serious consequences, was discovered in the course of routine work. It then laid out the actions which were taken to rectify the fault (by the replacement of piping), and the measures instituted to ensure regular testing in both company ships fitted with the system.

A natural question surrounds the symptoms which might indicate such a problem in the making. For an emergency system, this may well be difficult. However it is crucial that all emergency systems have stringent inspection/test regimes, preferably controlled within the ships Planned Maintenance System, to ensure successful operation if required. The inspection/test regime may identify design shortfalls, as experienced in the report, which will initiate corrective action involving redesign, material selection, avoidance of water traps (u-bends) and improved testing techniques.

CHIRP Suggests

Take note of this case. Check similar installations in other ships, and ensure that regular and reliable inspections are followed. **Watch for 'out of sight, out of mind'.** Emergency gear of all kinds, including firefighting gear, is not in regular use; defects may therefore go unnoticed. And yet – when these equipments are needed – they are needed immediately and in full working order to save life. **Invest in their maintenance.**

Possible Entry Into Enclosed Spaces Without Full Precautions

What did the reporters tell us?

A crew member reported entry into two enclosed spaces onboard a ship at sea, without the necessary precautions, and raised concerns about the safety culture onboard. The company stated that entry did not occur in either case; procedural lapses may have occurred, but appropriate follow-up action had been taken before receipt of the CHIRP report. The case shows how circumstances can be interpreted differently.

Extracts from the information passed to CHIRP. 'An Officer approached the Captain to discuss about two separate incidents in less than a week involving two different Officers gaining entry in to an enclosed space without adequate ventilation and safety equipment being present. Notably one Officer deemed a Fresh Water tank as not an enclosed space as there is a Goose Neck vent pipe attached to the tank. When asked about submitting a near miss form, the Captain told the Engineer that he would speak to the individual concerned'. [There were also concerns about whether the issue would be followed up, and lessons learnt at a later Safety Meeting].

The company responded. 'On both occasions NO entry was made, both occasions entry was stopped when it was noticed there had been a miss in our procedures ... A near miss was submitted immediately by the Master when this was brought to his attention. One of the incidents was brought to the attention of the Master 10 days after it happened ... Since this near miss we have done the following: conducted further training with all deck and engine officers and crew; we are currently creating an eLearning course to enhance the enclosed space training package we can give; we have adjusted procedures to fall in line with the updated COSWP requirements ... I am happy that our safety culture is working ... the positive reaction to this incident was that we worked as a team, procedures were used, and no dangerous situation occurred'.

The lessons to be learnt

Notwithstanding the discrepancy between the report and the company's comment, this case provides the opportunity to air this vital issue.

An enclosed space is one that:
IMO Resolution A.1050(27): has limited openings for entry and exit; has inadequate ventilation; and is not designed for continuous worker occupation

Enclosed spaces are the 2nd biggest killer at sea. Consequently the correct safety precautions are widely discussed. They are comprehensively described in the UK's COSWPs for Seafarers, and they feature in the IMO's SOLAS framework. From 1 January 2015, bi-monthly entry and rescue drills became mandatory. In addition remote testing equipment will be mandatory onboard ships from July 2016.

The lessons to be learnt – continued

The CHIRP Maritime Advisory Board's conclusions on this latest case emphasised the following points: **'If in doubt, treat a space as enclosed'**; for example the existence of a gooseneck vent on a water tank does not mean it is not 'enclosed'. Nor is a space which is partially open necessarily safe. **A crew member can be overcome in seconds.** A meter around his or her neck will not necessarily prevent death, if the atmosphere ceases to have the required concentration of oxygen or contains toxic gases. Once again, **ship's robust safety culture is crucial.** Competence, training and experience complement Safe Systems of Work, Permits to Work and risk assessments. Regular emergency exercises for confined space entry and rescue drills are vital in good safety management systems and practice. Beware of complacency; it leads to dangerous practices. Departmental briefings and debriefings, senior leadership by example, and consistent use of language (as in the word 'enclosed') are all important in building a good safety culture".

CHIRP Suggests

Can you 'Walk the Talk?' Double-check procedures. Practise regularly. Lead by example. Make sure everyone onboard knows this is the **second biggest killer at sea.**

CORRECTION: Maritime FEEDBACK edition 41: Article Close Encounter with a Ferry (Pages 3&4): The ferry was on the port bow and not the port quarter (end of paragraph 1) and an alteration to port would leave the yacht close on the Starboard and not the port side of the ferry as written (mid paragraph 3). Our apologies for any confusion this may have caused.

CORRESPONDENCE

Don't Get Wet Feet – Embarkation and Disembarkation Risks

A major charterer and ship manager has reviewed incidents involving injuries while embarking/disembarking ships. Three are shared here; most of us will have seen near misses like this in the past.

- Disembarking from a vessel to a boat alongside, using the ship's accommodation ladder. The person reportedly lost his balance while stepping on to the boat, and fell into the water.
- Descending the vertical jetty ladder to board a barge, a cargo surveyor lost his grip, hit the deck of the barge and fell into the water. He suffered a broken knee, and injuries to his leg and head. The surveyor was carrying sampling bottles in his jacket.
- While boarding a vessel using the ship's accommodation ladder, the boat engaged in the transfer operation rose with the swell causing the person to be hit by the ship's ladder. The person suffered a fracture to his leg.

CHIRP Suggests

- Guidelines for some of these operations, as well as the equipments in use, are available. **KNOW THE EQUIPMENT, KNOW AND OBSERVE THE GUIDELINES.**
- Scenarios, equipments and environmental conditions vary. **PAY ATTENTION; KEEP ALERT.** This applies to both those that transfer and those that supervise the activity.
- **DON'T TRANSFER, OR ALLOW TRANSFER, UNLESS IT LOOKS AND FEELS RIGHT. INTERVENE IF NEEDED.**

We are grateful to the sponsors of the **CHIRP Maritime Programme**. They are:



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Cammell Laird

CHIRP MARITIME REPORT FORM

CHIRP is totally independent of any organisation in the maritime sector

Name: ▲
 Address: ▲

 Post Code: ▲ Tel:
 e-mail:

▲ Indicates mandatory field

1. Your personal details are required only to enable us to contact you for further details about any part of your report. Please do not submit anonymous reports.
2. On closing, this Report Form will be returned to you.
NO RECORD OF YOUR NAME AND ADDRESS WILL BE KEPT
3. CHIRP is a reporting programme for safety-related issues. We regret we are unable to accept reports that relate to industrial relations issues.

If your report relates to non-compliance by another vessel with regulations, CHIRP generally endeavours, to follow this up with the owner or manager of that vessel, unless you advise otherwise. The identity of the reporter is never disclosed.

NO. You do not have my permission to contact a third party

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
<input type="checkbox"/> Master/Skipper <input type="checkbox"/> Chief Engineer <input type="checkbox"/> Deck <input type="checkbox"/> Engine/ETO <input type="checkbox"/> Catering <input type="checkbox"/> Officer <input type="checkbox"/> Manager <input type="checkbox"/> Rating Other:	Date of Incident:	Wind force:
	Time: Local/GMT	Direction:
	Vessel Location:	Visibility (miles):
	TYPE OF OPERATION	YOUR VESSEL
	<input type="checkbox"/> Commercial Transport <input type="checkbox"/> Offshore <input type="checkbox"/> Fishing <input type="checkbox"/> Leisure	Name:
		Type: (Tanker, Bulk Carrier, Fishing, Yacht, etc)
		Flag:

DESCRIPTION OF EVENT – Photographs, diagrams and/or electronic plots on a CD are welcome:

Your narrative will be reviewed by a member of the CHIRP staff who will remove all information such as: dates, locations, names that might identify you. Please bear in mind the following topics when preparing your

narrative: Chain of events; Communication; Decision Making; Equipment; Training; Situational Awareness; Weather; Task Allocation; Teamwork; Sleep Patterns.

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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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Please place the completed report form, with additional pages if required, in a sealed envelope to: **The CHIRP Charitable Trust, Ancells Business Park, Ancells Road, Fleet, GU51 2UJ, UK**
 (no stamp required if posted in the UK).

Confidential Tel (24 hrs): +44 (0) 1252 378947
or Freefone (UK only) 0800 772 3243
 Report forms are also available on the CHIRP website: www.chirp.co.uk