CHIRP Maritime FEEDBACK

Issue No: 45 11/2016

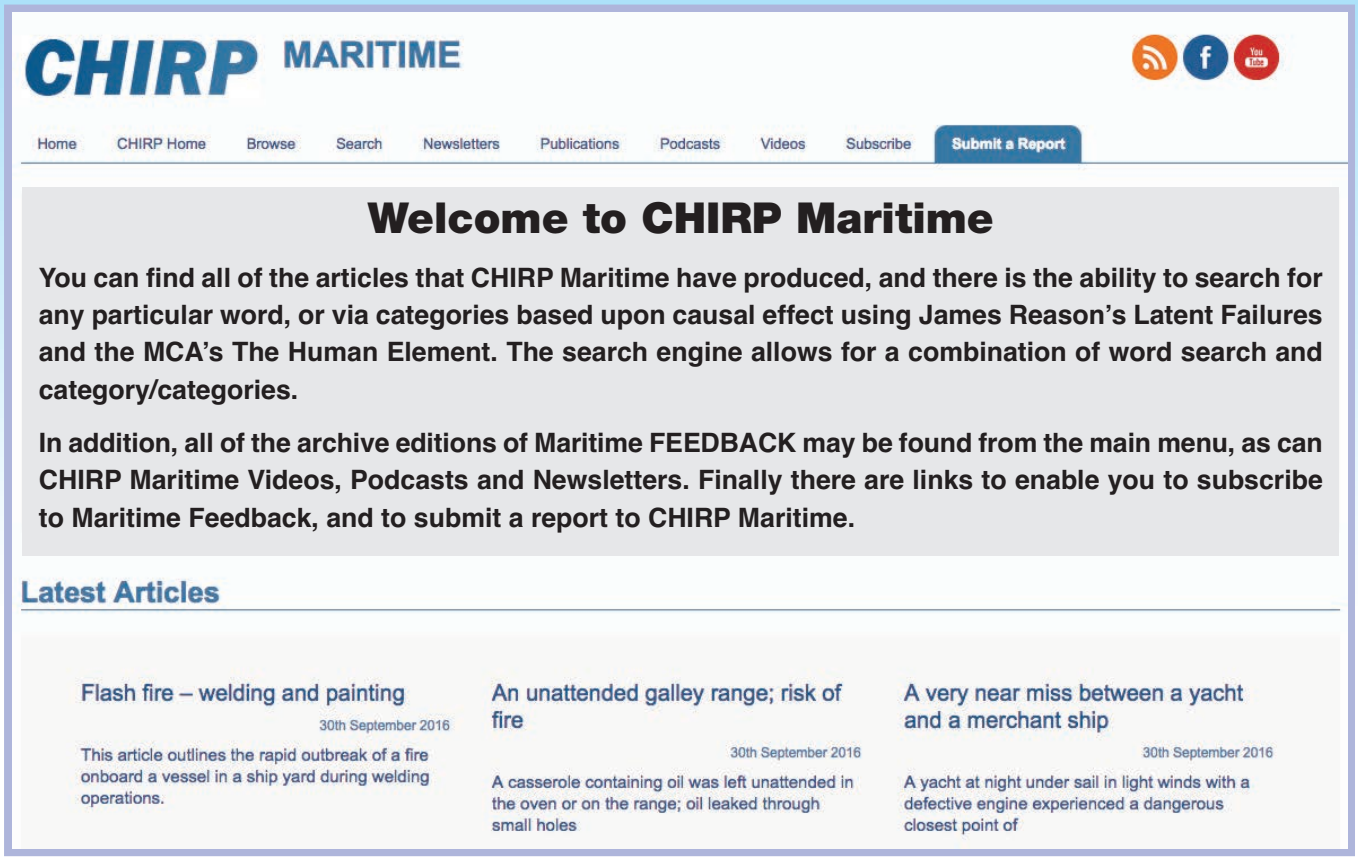
Editorial

Many thanks for your continued support in sharing your reports and the safety lessons learned. We again have a broad range of stories and suggestions on how to improve safety onboard. Non-compliance with the Collisions Regulations has become a regular feature and we are seeing an increase in the level of reporting in machinery space activities. The issue of poor design is a major concern but rarely reported; some examples would be comical, if it were not for the risk of injury that they create.

We are pleased to announce the release of our revised website www.chirpmaritime.org

It is now possible to send your confidential reports to us, including photographs or attachments via desktop, mobile, or tablet. Readers can search through all articles from the past 45 editions of Maritime FEEDBACK by using a word of your choice and/or by analysis, using categories from The Human Element and/or Causal Factors. There is also easy access to our video broadcasts, audio podcasts and published articles. We hope you enjoy using this reference library of safety information

We will be back with another edition in early 2017; in the meantime the CHIRP Maritime team wishes all of our readers, wherever you are, "Seasons Greetings" and safe sailing.



REPORTS ...

Unsafe vessel

A report was received on the poor condition of a vessel and the lack of support from the Designated Person Ashore (DPA).

What did the reporter tell us?

The general condition of the vessel is extremely bad with thick rust scale everywhere. The following items are defective:

Nearly all the vessel certificates, including certificate of class, have expired. All safety equipment requires servicing, including all BA sets, which are defective. The rescue boat davit requires to be serviced. The liferafts are out of date. All medical stores are out of date with no order for replacements. All nautical publications are out of date and no company has been contracted to supply new chart editions or corrections. Several expired navigation charts have not been replaced. Manning is below that required by the safe manning certificate. GMDSS outfit is still programmed with Old MMSI number. AIS has the wrong MMSI. All lifejackets have holes in them. Records are routinely falsified to show work carried out when nothing has been done. No proper navigation watch maintained while the ship is at anchor. We experienced severe shortage of food onboard. Crew is owed seven months wages. Bilges are routinely discharged during the hours of darkness. Galley waste is dumped overboard despite being less than one mile from shore. The vessel is entered into a P&I club. There is no support from the company ashore, the DPA does not have a deputy so when he goes on leave, there is no DPA, or any contact number. The accommodation is substandard with bunks not secured and two members of the crew are living in a container on deck.

CHIRP contacted the third party ship managers –and received the following reply. "Your suggestions that safety standards and other matters concerning the operation of this vessel do not comply with obligations relating to this ship's registration are not accepted. The vessel complies fully with all the requirements that the maritime

authorities of the state have stipulated and which are periodically monitored and audited whilst engaged in activities within the confines of the country".

CHIRP Comment

It should be noted that the vessel had undergone three rapid changes of Flag in the months prior to arrival at its current location. Compliance with both the ISM Code and the MLC 2006 Convention, including the Manila Amendments, appears to be woefully substandard. **CHIRP** tried to contact the local Port State Control but email/web site contacts are not functioning. Investigation into IMO records reveals the government authority has not conducted any Port State Control inspections for some considerable time.

CHIRP applauds the reporter for submitting the report. CHIRP has written to IMO's Chairman of the Implementation of IMO Instruments sub-committee, sharing the issues that have been raised in this report.

REPORT ENDS

Look after your EPIRB

Due to a faulty spring, the EPIRB would have failed to operate when needed.

What did the reporter tell us?

The vessel was at anchor. During routine inspection of the bridge equipment, the officer on watch observed that the spring of the EPIRB unit, which assists to release the equipment, was broken due to rust (over age) of the equipment, and insufficient equipment inspections.

The lessons to be learnt

This is an indication that previous inspections of the equipment were not effective.

CHIRP Suggests

CHIRP noted that whilst a significant defect to essential life-saving communications equipment was observed and rectified by an alert watchkeeper, there is an underlying problem associated with routine planned maintenance.

The challenge from **CHIRP** to its readers is: How do you ensure that all of your inspections and maintenance are indeed thorough and effective? Possibly your planned maintenance instructions need to be more thorough – on a routine inspection the instruction might be to "Inspect the EPIRB" which simply invites a "tick the box" response. Or it might give much more detail to involve a thorough check of the equipment. This simple example concerns a lot more than inspections by ship's personnel – it involves full shore based management commitment to their Planned Maintenance Systems, and manufacturers issuing detailed maintenance requirements for their equipment.

This precaution could save your life so you decide ...

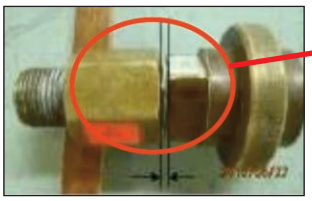
REPORT ENDS

BA Compressor – Union coupling failure

Parting of an adaptor at 100-bar pressure, with potential for serious injury.

What did the reporter tell us?

The officer was charging the lifeboat compressed air bottle. During the charging, the union/adaptor between the breathing apparatus compressor and the air bottle disconnected and was blown away when the pressure of the bottle reached about 100 bar. The maximum designed pressure of the air bottle is 200 bars. Fortunately nobody was injured, but clearly there was a possibility of a serious injury occurring. The specification of the union/adapter used on board was different from the original. The union/adapter could not withstand the pressure because it could not be tightened sufficiently. The failure to use the correct adaptor was the result of improper management of parts.



The lessons to be learnt

Confirm that all unions/adapters between BA compressors and air bottles (such as for lifeboats, SCBA, EEBD, etc.) are the correct design, as per the instruction manual on board. If the instruction manual is unclear, consult with your ship's manager.

CHIRP Suggests

Proper parts and good maintenance is the first and most important control measure for the hose whip risk. When deemed necessary, an example of an additional control measure is "a length of suitable cordage, tie wrapped around the hose and secured, so as to prevent whipping should it fail at any point".

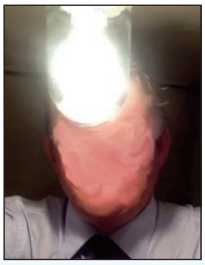
It is most likely the connection was not manufacturer supplied and the connection thread, whilst fitting, was not the approved part and the thread may have had some slight unseen tolerance that caused the connection to blow at high pressure. CHIRP highlights the need for caution with all high-pressure equipment; when they fail it can have fatal consequences.

It is essential that only the correct manufacturer's approved components are used on both the compressor and the connection with the air bottle. Refer to: The UK MCA's Code of Safe Working Practices for Merchant Seafarers (2015 edition) COSWP 18.25.1 and 18.25.2.

REPORT ENDS

Ouch! - Bad ship designs

We encourage seafarers to submit examples of bad design. Please include photographs, since a picture speaks a thousand words! We can share two such reports with you here.



What did the reporter tell us?

A photograph of a poorly designed pilot boarding area. The pipes are tripping hazards and there is an irony of positioning them in an area that has a clear to read sign stenciled onto the deck telling people to keep the area clear. Also, please find attached a photo showing poor design onboard a ship I piloted. I am 188 cm tall and as you can see, the light fitting comes down to less than 180,cm right in the middle of the bridge toilet room. I have found this same situation on a number of vessels. Although it didn't cause injury it has the potential to do so.

CHIRP, Ancells Business Park, Ancells Road, Fleet, GU51 2UJ (UK only)
reports@chirp.co.uk Freefone (UK only): 0800 772 3243 or +44 (0) 1252 378947

CHIRP Comment

The risks associated with the walkway design hazards had clearly not been reduced to 'As Low as Reasonably Practical' (ALARP) and creates an unacceptable risk of personal injury as a result of a slip, trip or fall. The risk should have been mitigated by a post build design initiative to have a grated walkway over the top of the pipes.

Please refer to article in Alert! Number 01275. http://www.he-alert.org/en/utilities/download.cfm/fid/E9558858-316B-4C74-87DD26DE5E815204

CHIRP comment on the second photograph, the minimum head clearance at all locations onboard is stipulated as 2.1 Metres: This was not complied with in this case.

REPORT ENDS

Handling and stowage of gas cylinders

We received correspondence advising that the article in MFB 44 should have made better use of the advice given in The UK MCA's Code of Safe Working Practices for Merchant Seafarers (COSWP – 2015 edition). We accept this comment and incorporate this additional safety information in conjunction with a report we received on the use of a home-made tool to lift gas cylinders.

What did the reporter tell us?

- Multiple oxygen & acetylene cylinders should be segregated and stored in separate cages.
- The cages should be locked for security (but with keys available locally in a break-glass box).
- The gas stores should segregate each variety of gas and cylinder sizes. The colour codes for the screwed caps on cylinders must follow the cylinder colour code.
- Cylinders should be placed on wood and not directly onto a steel deck. Cylinders should be individually secured, (with a quick release), to prevent any metal to metal contact.
- There should be a bulkhead or a three-metre separation between oxygen and acetylene cylinder cages. The gases should be identified by signage with a 'Danger – No Smoking' notice.
- If in doubt refer to COSWP Chapter 24.8

We have since received a report whereby a ship was taking on board an acetylene cylinder. The cylinder arrived on a one sided protected pallet, not suitable for lifting. Since the vessel's cylinder cage was located in the forward part of the vessel, the supervising officer decided to use an onboard fabricated lifting tool consisting of a U-clamp welded to a cylinder cap and then lifted it on board! Fortunately there was no incident in this case but accidents involving gas cylinders can cause serious injury or even death.

CHIRP Suggests

The approved method for moving single oxy-acetylene cylinders is by a dedicated trolley. The use of a homemade tool to lift gas cylinders is not in compliance with the COSWP, nor does it indicate the existence of a robust safety culture on board. This activity should have been stopped.

REPORT ENDS

Uncontrolled release of a blocked pipe

Near injury caused by little consideration of the risks involved being given when clearing a blocked pipe.

What did the reporter tell us?

A drainpipe was found to be choked: Initially the pipe was blown with air and even filled with water to check if the pipe was clear. A decision was made to clear the blockage by heating the pipe. The result was a sudden release of the clogged material, with the residual pressure causing the blocked material to hit the bulkhead. The person heating the pipe was standing clear but the person assisting was standing right in front of the pipe. Fortunately he had just moved to get some tools when the incident took place. The water used in the pipe converted into steam and released the clogged material under pressure.

The lessons to be learnt

The reporter advised the action taken to prevent similar accidents again: Always keep clear of both the openings of the choked pipe being cleared. All the personnel are to be briefed regarding the consequences and to take preventive measure while carrying out such jobs.

The company procedure recommends hazard identification by the "brainstorming" method for proper risk assessment and the conducting of a toolbox meeting prior to undertaking any task.

CHIRP Suggests

Such brain storming can form the basis of a toolbox talk. A culture that encourages toolbox talks would have improved the level of situation awareness and the identification of potential risks. After the first plan failed to achieve the required result, a second toolbox talk should have taken place to incorporate identified actions after a new risk assessment had taken place.

CHIRP suggests that toolbox talks should not be prescriptive but should be designed to stimulate thought and discussion over a wide range of circumstances as part of a good safety culture on board. Forms can be developed to support toolbox talks, by prompting participants to consider common hazard sources, such as heat, pressure, moving or falling objects, electricity etc. It is not necessary to keep and file such forms, if that risks them becoming 'tick box' exercises. It is more important that they encourage consideration of the hazards by those involved with the job. A good Toolbox Talk would identify hazards, which may then need to be subjected to a more formal risk assessment by a competent person or persons.

A good practice shared with **CHIRP** suggests a traffic light system can be adopted for a toolbox talk, whereby if there are no changes to the planned work the status is 'Green'. If one item changes the status becomes 'Yellow', i.e. stop and think before progressing and the moment a second item changes, the status becomes 'Red', i.e. stop work and reassess the risks.

REPORT ENDS

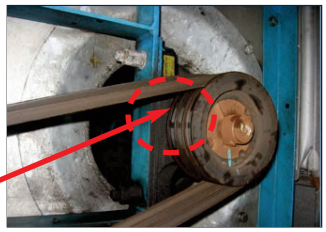
Machinery space finger injuries

This joint article includes reports relating to fingers being caught in the belt of an air conditioning blower and fingertips amputated during maintenance of the auxiliary engine.

What did the reporter tell us?

(1) The electrical officer (E/O) and fitter were performing routine maintenance on the air conditioner blowers. After completion of greasing of the two blowers, the E/O switched on the power of the system to test

the system. The no. 2 blower was observed by the E/O to be drawing excess current. To investigate the case, he switched off the power to the No. 2 blower with the intention to check the tension of the belt between the blower's motor and the fan. For this purpose, after the blower stopped, the E/O moved the belt of the No. 2 blower with his right hand and pushed down the belt with his fingers of his left hand while the belt was in motion. While doing this action his left hand fingers got caught between the fan pulley (on the fan side) and the belt (see figure). This severed the tip of the ring finger and the middle finger of the left hand (at the top knuckle of each finger).



Apparently E/O fingers got trapped between the belt and the pulley.

(2) Ship's staff were carrying out repairs to an auxiliary engine as there was water observed in the scavenge manifold. Whilst dismantling the protecting ring of the cylinder liner of the auxiliary engine, four fingers of the chief engineer's (C/E's) left hand got caught in the tool he was using to pull out the protecting ring, just as the piston accidentally moved upwards. Due to miscommunication, the flywheel was turned in the opposite direction, causing the piston to move upwards and thus trapping the C/E's finger in the tool. The tips of all four of his fingers were severed and the vessel had to be diverted in order to medevac the C/E.

The lessons to be learnt

Report 1: All crew were briefed about hazards while working with parts that may move or start automatically and warned about the precautions to be taken, especially when working around moving parts. As a good practice, instead of fingers, it would be safer to use a screwdriver, or socket drive end of the fan pulley to check for free movement when testing the tension, or freedom of the belts. All equipment should be isolated and tagged out before personnel are engaged in the repair work.

Report 2: A risk assessment should be carried out, with the results and required safety precautions being discussed in a toolbox talk with all those concerned in the work. The supervisor should not get involved in the work; instead he should step back in order to keep an overview of the work being performed.

CHIRP Suggests

In all machinery space activities, allow time for toolbox talks; ensure there is good regular communication; ensure suitable gloves are used; provide proper supervision; and ensure there is a "stop work authority". These are all highlighted as important precautions to take. The use of a Permit to Work would introduce added controls to stop machinery being operated without checks being in place.

The UK MCA's Code of Safe Working Practices for Merchant Seafarers (2015 edition) Chapter 20, "Work on Machinery and Power Systems", provides important general machinery advice.

CHIRP expressed concern over the planning and execution of the work and the fact that the chief engineer, as the supervisor, became directly involved and therefore was no longer conducting effective oversight of the work.

REPORT ENDS

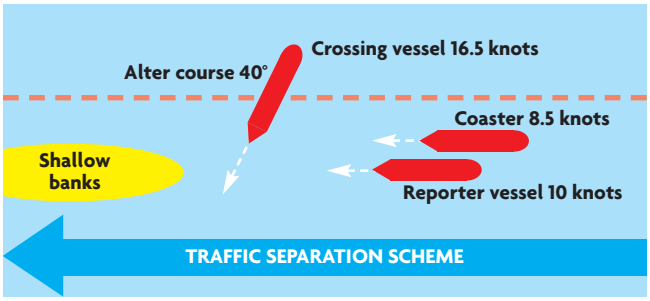
Close Encounter crossing a Traffic Separation Scheme (TSS)

A report of a near miss at a busy crossing section of a TSS: This includes an excellent response from the Third Party.

What did the reporter tell us?

Own vessel was proceeding in a lane of a Traffic Separation Scheme that was in close vicinity to a bank. A ferry was observed leaving Port A bound for Port B. Initially the closest position of approach (CPA) was 1.5 mile astern of me. At a range of about 4 miles he altered course 40 degrees to starboard, resulting in a CPA and bow crossing range of 0.2 miles. By the time the range was 3 miles, no attempt had been made to call me by VHF radio to advise his intentions. I called to ask for clarification of his intentions and was told he had altered course 40 degrees to starboard and wanted to pass ahead of me and that I was the give way vessel. I advised him that I could not alter to starboard as I was overtaking a small coaster doing about 8.5 knots and just 6 cables away on my starboard quarter; with no room to pass on the other side of the ferry due to the proximity of other vessels and transiting at a relatively slow speed.

He told me that I was the give way vessel, which is absolutely correct, and that I should slow down to let him pass ahead of me. This was at a range of 3 miles and he had made it into a close quarters situation by altering to starboard in the first place. Fortunately we were proceeding at slow speed around 10 knots and I was able to slow our ship down fairly quickly to allow a CPA and bow crossing range of 1mile.



The lessons to be learnt

The reporter said, "Expect the unexpected!" This was an ill-advised manoeuvre at very close range, creating a close quarters situation when it was totally unnecessary. If he had maintained his initial course then a close quarters situation would have been avoided. This is a passenger ferry making a very dangerous and late manoeuvre.

Third party ship manager's response:

Obviously our ferries have to cross the TSS as near as possible to right angles. That said, we do "shape-up" to avoid clusters of ships in the TSS, and this is normally done as soon as possible after leaving Port A so the other vessels have time to assess the intention of our vessel. However, that would not allow a 40-degree alteration to starboard to cross the TSS. The relevant extract of our company regulations state *"When crossing ahead of another vessel, the bow crossing distance (BCD) is to be no less than 1.5 miles at all times unless navigational circumstances, such as concentrations of heavy traffic, prevent this safety margin from being achieved. BCD is the distance of own ship from the other vessel when crossing her projected heading line. The perception of the situation from the other ship's bridge must be considered when assessing whether to pass ahead. It will be good practice to maintain a minimum CPA of 1.5 miles when crossing ahead of another vessel, particularly if it is a fast vessel. This will require a*

greater BCD than 1.5 miles." I have reviewed now the Voyage Data Recorder (VDR) of this incident. I have also asked the senior master to attend and reviewed this with him. I believe the report made from the reporter is accurate and our OOW could have made better decisions. The OOW on the ferry was faced with a number of vessels in the TSS lane and altered to starboard to head for a gap. However by doing so he:

- Gave way when he was the stand on vessel.
- Ended up crossing the TSS at an angle.
- Created another close quarters situation
- Altered into the flood tide and so lost speed over the ground.

The OOW could have stood on and gone astern of the reporter's vessel. This would have created another close quarters situation with a SW going vessel to the south, who would have then had to slow down or alter to starboard. However, this would have been preferable to the situation created. There were other learnings from the VDR which the senior Master is taking up with the bridge team. I apologise to the reporter and we will be addressing this and ensuring wider leanings from this. The OOW is hugely experienced having worked on this route for many, many years. Again there is a learning here that experience does not guarantee good decisions.

CHIRP Suggests

An excellent report and the response from the third party is an example of best practice and is to be congratulated. Their proactive use of VDR to investigate, follow up, and then use as a training tool is most commendable.

CHIRP thought there might be commercial and tidal implications that may have influenced the decision and the need to cross the TSS close to 90 degrees. **CHIRP** suggested employing better use of 'Trial Manoeuvre' exercises and perhaps the ferry OOW should have altered course to show the vessel a "green side light" and followed around the stern of the vessel.

CHIRP has also noted Singapore has been trialling three green lights in a vertical line since 2011 and an IMO Assembly Resolution agreed that this signal could be recognised. Discussion now concerns whether to insert a requirement into Rule 10.

REPORT ENDS

Close Quarters – Avoiding Action Required

Outline: A report of a near miss between a yacht and a large car carrier. This report appears to relate to a speed management issue, arriving too early for a pilot.

What did the reporter tell us?

Own vessel (yacht) was on passage just south west of the Isle of Wight under sail on course to enter the Needles Passage. Visibility was very good with a light SW wind calm to slight sea. My course over the ground was 334 Magnetic and my speed over the ground was 6.6 knots. Over the course of approximately 45 minutes we became aware of and monitored the progress of a large car carrier. Soon after first noting his presence he altered course from approx. NE to approximately NNW. This put him on a parallel course to us with him approximately 5 miles astern and on our port side. We continued to monitor the ship, which also appeared to be shaping a course for the Needles. We were not unduly concerned, as it appeared that he would pass clear down our port side. At approximately 1740, the ship began a turn to starboard, which meant that he was now on a converging course with an estimated closest point of approach of less than 200 metres. I called the ship and identified myself as the yacht on his starboard bow and asked what his intentions were. The response was to continue on his course to Nab Tower. He did not seem to appreciate our position relative to his own, as he came back and asked if we were the yacht ahead of him. I replied that we were and were unhappy with his course of action. He responded that he was continuing his turn. At this point my crew decided to take avoiding action started the engine and turned hard to starboard and completed a 360 degree turn, taking us first away from the car carrier and then around his stern. I called again and informed him that I was extremely unhappy with his actions and his failure to keep a clear lookout. I informed him that I had a full AIS track recorded and that I intended to file a report. We continued to track his progress by AIS and observed him carrying out a series of unusual changes of course. My concerns are that visibility was extremely good and he should have been able to see us for at least 10 miles. We were under full sail, carried a radar reflector and so should have been easily visible to him. He was overtaking and made no effort to communicate with me or alter course. No sound signals, or any attempt to call me by radio, were made. His attitude on the radio did not give me any confidence that he had seen me or taken any account of my progress when beginning his turn. Had we not been keeping a good lookout and monitoring the progress, the potential for a collision was significant.

Screen shots of our track and his track are produced below.

Tracks of car carrier and own yacht.

Tracks of car carrier.

The lessons to be learnt

Reporter stated; Main lesson learned was to make contact with a vessel with unclear intentions earlier. **CHIRP** regrets that despite phone calls made and emails sent, the ship managers failed to respond. The car carrier's OOW response to the VHF call is indicative of a poor safety culture onboard. The report is a good example of where the use of VHF might not have worked earlier, because since the OOW's response was poor when the vessels were close to each other, it is likely to have been poor when the ships were several miles apart.

CHIRP Suggests

CHIRP does not accept the reporter's lesson learned relating to the use of VHF and does not encourage the use of VHF for collision avoidance purposes. **CHIRP** believes the yacht would have benefited from the use of an AIS transponder.

This appears to be a speed management issue for the car carrier arriving too early for the pilot. The ship was most likely in a 'holding pattern' and would have benefited from enhanced Bridge Resource Management, thereby avoiding the apparent loss of situation awareness.

See also the MAIB report into the grounding of the Pride of Canterbury "The Downs" – off Deal, Kent 31 January 2008.

REPORT ENDS

Collision due to dragging anchor

A vessel engaged in cargo operations with a barge, dragged anchor and collided with another vessel that was anchored astern.

What did the reporter tell us?

Vessel arrived and dropped anchor at Chittagong Roads for cargo operations. The master, after assessing one tidal change, allowed the engine room to commence de-pressurising the boiler for survey. The boiler economiser door was opened, the main engine jacket pump was stopped and the valves for the jacket water were closed. During the night the master

relieved the 3rd Officer from anchor watch on the bridge as he was called to resolve a grab issue on deck.

The vessel started dragging anchor and this went un-noticed. There was an anchor watch alarm on the radar and this was acknowledged but not acted upon. Five minutes later the anchor watch alarm on the 2nd radar sounded and was acknowledged but again not acted upon. The master was preoccupied with the grab issues and at this time the vessel had a stern speed of 0.9 knots. Shortly thereafter, the 2nd and 3rd officers came on the bridge to discuss the grab issues with the Master and there was no effective anchor watch in place, as all were engrossed in the grab issue.

At 0027LT, the ship that was anchored right astern, called own vessel on VHF radio, which was not answered. Subsequently there were calls from a 3rd ship to another vessel and a blowing of the whistle. When the master heard the whistle he realised that his ship was dragging its anchor. By this time own vessel had a stern way of 1 knot and distance to the ship astern was 2 cables. The master asked the vessel astern to move away, as own ship was having engine problems, which was refused. The main engine was used to make headway, but did not get sufficient rpm. The port anchor was dropped to arrest the drag but this was unsuccessful, so the port anchor was picked up. Vessel continued to use the engine, though at lower rpm and commenced to pick up the starboard anchor with 7 shackles in the water. Once the starboard anchor was aweigh, the stern speed increased but the engine rpm could not be increased sufficiently to arrest the stern way, resulting in own vessel's starboard life boat deck area coming into contact with the other vessel.

The lessons to be learnt

Reporter's suggestions to prevent similar incidents:

- Proper anchor watch must be maintained at all times, whilst vessel is at anchorage.
- Main engine shall be kept on immediate readiness in crowded anchorages, or in anchorages where dragging is possible due to the nature of the bottom, the current, topography, etc.
- If there is a need to immobilise the engines, a thorough risk assessment must be carried out, giving due consideration to prevailing circumstances and ships in the vicinity.

CHIRP Suggests

CHIRP noted the report showed a poor level of seamanship, the cumulative risk of the distraction due to the cargo operations in a high-risk anchorage area, the lack of response to two alarms and non-compliance with company guidelines. The delay in starting the main engine, as it was not warmed through, should have been overridden by the higher risk of damage to the hull and for preserving safety of life.

CHIRP also questioned, why the company agreed to engine immobilisation in such a high-risk anchorage?

See Notice to Mariners advice on anchorage at the Port of Chittagong, whereby the ship's engines are to be kept on standby at all times. http://cpa.gov.bd/instruction-to-mariners/

See also GARD P&I Club advice: http://www.gard.no/Content/20724691/Gard%20Alert_Chittagong.pdf

REPORT ENDS

Single handed yacht and a small cargo ship

An honest and frank account of a near miss between a yacht and a small cargo vessel, with several safety learnings identified by this experienced sailor.

What did the reporter tell us?

I have 30+ years experience of sailing small boats. Recently on a passage from Ramsgate to Harwich on a cloudless day, the planned route was to pass through a channel in the sand banks off the Thames estuary called the Fisherman's Gat. The wind's strength and direction was such that, in order to reach the Fisherman's Gat on time, I had to motor-sail with the auto-pilot steering the boat. There were no other vessels in sight when I started the engine, and the risk of going forwards to rig a motor-sailing cone was pointless when there was nobody to see it.

When there was about four miles left to run, I automatically looked around to check if there were any other vessels on the deserted sea, and then went below into the cabin to check the boat's progress on the chart. Checking the boat's progress properly may have taken four or five minutes, possibly longer.

When I returned to the cockpit, I was shocked to see the stern of a small cargo ship perhaps 100 metres away and moments later my boat crossed over its wake. This is the nearest I've ever been to any cargo ship. My normal response is to make a big and obvious course alteration if I'm likely to get within half a mile of any ship.

The ship that I never saw was, at a guess, doing 15 knots. If it was doing 15 knots and visibility was four miles, the bridge crew had my boat, with its sunlit white sails, in sight for about a quarter of an hour. The aluminium mast and copper wiring in the boat's hull provide a good radar return at four miles.

My boat's VHF radio is normally always turned on when at sea, but was turned off because I'd got fed up with the constant incomprehensible chatter in French on channel 16. I can thus not know if any attempt was made to contact my boat.

If the ship's bridge crew intended to frighten me by allowing such a close encounter to occur, they definitely succeeded. However, I view it as a very dangerous way to teach a single-handed skipper a lesson about the need to keep a good lookout. The ship could have, as the least inconvenient action to the bridge crew, sounded its whistle rather than remain silent.

I hope that this account will make for interesting reading by bridge officers who have experienced small sailing boats failing to respond to the presence of their ship. There are many small vessels with a single person on board, including fishing boats with one person working in the stern whilst an auto-pilot steers the boat.

Clearly, I was the major 'fault factor' in this matter, but I was left wondering why the ship came so close to me when a small alteration of course would have widened the clearance when it was obvious that there was nobody in my boat's cockpit.

The lessons to be learnt

Questioning why the reporter got so dangerously close to the cargo ship, he came to the following conclusions:

- Humans do not have necks that can turn through 180° in either direction. When I automatically scanned the horizon, I did so whilst seated on the starboard side of the cockpit with my back to the east. When I'd glanced around the boat, the far distant cargo ship was directly behind me, out of sight, and I thus believed that there were no other vessels to consider. This was how it had been for well over an hour. I saw what I expected to see and didn't have any reason to make a second check when I stood up to go below into the cabin. Visibility was about four or five miles.
- My boat does not carry any form of AIS receiver. (Yes –this deficiency will be rectified.)

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CHIRP Suggests

CHIRP complemented the reporter on the honesty and the lessons learned. Complacency and a lack of situation awareness were the main causal factors.

CHIRP expresses that caution should be exercised when sailing single-handed and highlights the associated high risk, not least because of the speed at which risks can materialise. See also MAIB Safety Digest 2/2016 Case 7 'Look out by all available means'.

CHIRP questions the reporter's assumption that the yacht is visible at four miles distance, see MFB 41, pages 3 and 4 and comments on radar identification of yachts with GRP structure and alloy masts. Also as a general comment, yachts typically have white or light coloured sails; these are not easy to see in rough weather or restricted visibility and **CHIRP** notes that lifeboats in World War II had red /orange sails to assist with their identification.

REPORT ENDS

Grounding in the Mississippi river

Ship grounded as the result of a blackout.

What did the reporter tell us?

The vessel was en route to the discharging terminal with a pilot onboard when there was a blackout and a loss of propulsion. The emergency power was restored within 18 seconds, the main power restored within two minutes and the main engine made available again within four minutes. The engineering team reacted very quickly and promptly. The master, in discussion with the pilot, decided to beach the vessel to keep the channel clear of any traffic until power could be restored and engines tried out fully. USCG and Flag State Administration were informed. Onboard Investigation by the port engineer revealed that, due to an oversight, the standby generator had not been kept on 'Auto' during the passage. The blackout was caused by the concurrent operation of deck machinery and engine compressors, without there being sufficient reserve electric power to cope with this load.

The third generator should have been kept on load; in anticipation of the additional bow thruster load being applied during pre-arrival testing that took place ahead of the imminent vessel berthing. The inexperienced master panicked and in an effort to show his command to the pilot, called the engine room six times within three minutes, asking each time for the chief engineer to answer him and thus diverting the focus away from the emergency at hand. The beaching could have been avoided as the emergency power was restored within 20 seconds and emergency steering was available, of which the master and the officer of the watch were not aware. The weather and visibility at all times was good. There was no pollution, injury or damage to the vessel or the environment.

The lessons to be learnt

During critical passages, sufficient reserve power should be available at all times and it should be ensured that the 'Auto Start' function is available should the power demands so require.

Testing of the bow thruster, or other machinery, should be conducted in sufficient time and in open waters, where sudden load changes do not jeopardise the safety of the vessel, as is the case in confined waters.

Emergency drills should include the testing of steering on emergency power and all members of the bridge team should be aware of the location of these switches.

The lessons to be learnt *continued*

Blackout simulation drills and the actions to be taken in confined waters, including the steps to be taken when the vessel grounds, should be part of realistic drill scenarios.

Calm, concise and precise closed-loop communication is essential in emergency situations. A good understanding between heads of departments is invaluable at such times. How well this is done in an emergency depends entirely on how well and efficiently the two departments communicate during routine times.

CHIRP Suggests

CHIRP noted the breakdown of the safety management system and appreciates the way the reporter identifies the need for full teamwork and training, including the need for regular drills to be conducted that involve both the bridge and engine room teams. Having a coherent, workforce owned procedure for the efficient pre-arrival testing of the main engine and other essential equipment is also identified here as being critically important.

The company Standard Operating Procedures (SOP's) should always include a ship specific, workforce owned, pre-arrival checklist that contains the requirement to always conduct a pre-arrival and pre-departure briefing to ensure that the whole team (deck and engine) has a shared mental model of the operation to come and thus bring about effective and efficient teamwork.

See also:

(1) USCG Code of Federal Regulations 33. 164.25 ... No vessel may enter, or be operated on the navigable waters of the United States unless the emergency steering drill has been conducted within 48 hours prior to entry and logged in the vessel logbook ...

(2) SOLAS V Reg. 26 requirements are subtly different – drills/training are referenced in paragraph 4. https://mcanet.mcga.gov.uk/public/c4/solas/solas_v/Regulations/regulation26.htm

(2) SKULD P&I Club briefing "USA, MISSISSIPPI: HIGH RIVER SEASON – RISK OF GROUNDING" (March – May) when stronger currents may be experienced.

CORRESPONDENCE

Fire down below

Further to the latest report in Maritime FEEDBACK 44, a reporter has shared with us an investigation into an incident several years ago, in which a spark from burning equipment landed on pipework lagging and the paint on top of that lagging caught fire. The lagging had been stripped to an extent but had not been stripped completely. The build-up of paint on the deckhead covering the insulation is believed to be the main accelerant to the fire spreading across the space. This was subsequently confirmed in a separate test that created a similar situation.

At the time of the incident, the individuals concerned were carrying out deck penetrations from the deck above down to the room below in order to feed pipework through the penetrations.

Prior to the incident the pipe fitter supervisor had checked the area and shown the two pipe fitters the work and location that they had to complete the task. A burner and firewatcher were called in order to assist with the penetrations. The firewatcher signed out a 'damping' extinguisher in order to dampen the area directly below any penetrations, which were pop marked to show the

exact location. He used this equipment for damping down all three penetrations. The Permit to work was followed and the local area cleared before work started.

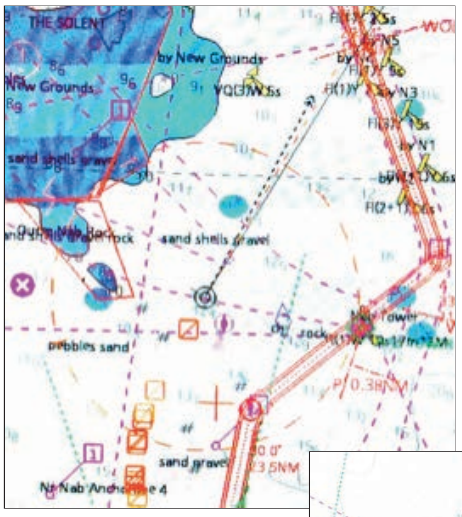
The fire watch in the compartment below noticed black smoke and used the extinguisher in the vicinity of the smoke but the fire spread rapidly overhead. Consequently the fire alarm was sounded and the ship was evacuated.

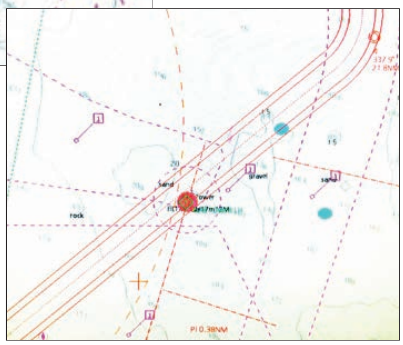
CHIRP Suggests

What started out as routine work soon became a major fire – the message for all is, plan for the unexpected! The use of a fire blanket to cordon off areas where sparks can ignite adjacent areas is also a prudent precaution to take.

You won't Nab this Pilot!

When the pilot boarded the 200 metres long crude oil carrier, which was inward bound into the Eastern Solent waters, he was more than a little surprised that the passage plan approved by the Master (and clear to see on ECDIS) showed the course passing directly over the Nab Tower, which is clearly marked on the chart.





CHIRP Suggests

This is a good example of why some ports have compulsory pilotage and shows the benefits of agreeing the passage plan between the pilot and the master.

For more information on ECDIS near misses please read CHIRP Maritime FEEDBACK 44.

There was an apparent failure of the Safety Management System and its implementation on board. Every passage plan should be checked, agreed by the master and then signed off by all of the navigation officers. In this case this clearly did not happen.

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