

CHIRP FEEDBACK

Issue No: 27

Autumn 2010

CHIRP - NEW ADDRESS

Please note that at the end of October 2010, CHIRP is moving to a new office in Farnborough. Our new address is: **26 Hercules Way, Farnborough GU14 6UU**, UK reporters can use our new FREEPOST address at the foot of this page. Our **Freephone** telephone number and e-mail address will remain unchanged.

CHIRP MARITIME PROGRAMME FUNDING

This Maritime Programme is funded by the UK Department for Transport. In common with all Government spending, this will be subject to the Comprehensive Spending Review to be announced on 20 October 2010. We will advise you of the outcome of the Review on our website and also in the next issue of this newsletter.

EDITORIAL

SAFETY AWARENESS

A recent report by the Marine Accident Investigation Branch on three separate fatalities on fishing vessels in November 2009 emphasises that special attention must be given to improving safety awareness and understanding of the risks posed by their work place if occupational accidents, including cases of man overboard, are to be reduced.

From reading accident reports from all the marine sectors, it appears that, in many cases, neither the victim nor shipmates had recognised what could go wrong with the particular operation and so had not applied simple safeguards. We believe that observation and reporting of near-misses by mariners can contribute to a greater awareness of specific risks and the precautions needed to reduce them.

As an individual, you can contribute to improving maritime safety by reporting hazardous incidents. Please "do your bit"! Don't just leave it to someone else!

REPORTS

CHIRP receives reports on a range of hazardous incidents that have occurred within the commercial, fishing and leisure sectors of the maritime community. Here are a number of reports which will be of wider interest, together with the "lessons learned" as described by the reporter. The **CHIRP** comments have been reviewed by the **CHIRP** Maritime Advisory Board which has members from a wide range of maritime organisations. Full details of the membership can be found on our website - www.chirp.co.uk.

COMMERCIAL SECTOR

KILLER IN MANILA

Report Text Whilst attending vessels, I have found pilot ladders with plastic tape wrapped around the manila rope of the pilot ladders. This is deadly. When the rope becomes wet, the plastic tape will inhibit the drying process and the rope will start to rot. There will be no visual indication as the rotting rope is hidden by the tape.

In a hot climate this process may be very quick, a week or less. The writer is aware of an incident in which a pilot fell into the water due to such failure of a ladder.

I have also seen manila rope used for lifeboat painters similarly wrapped with plastic tape.

When I pointed out the hazard, the ships' staff took prompt action to replace the ropes.



CHIRP Comment: A key way in which individuals can improve safety is to intervene if they observe a hazard so that it is corrected before it leads to an accident. The reporter did this by pointing out the hazard to the ships' staff. We thank him for sharing the lesson with us.

MARITIME FEEDBACK is also available on the **CHIRP** website - www.chirp.co.uk

A Maritime Safety Newsletter

from **CHIRP** the Confidential Hazardous Incident Reporting Programme

FREEPOST RSKS-KSCA-SSAT, The CHIRP Charitable Trust, 26 Hercules Way, Farnborough GU14 6UU **Freephone**:(24 hrs) 0808 100 3237

confidential@chirp.co.uk

FUMES IN ACCOMMODATION

Report Summary: A passenger on a cruise vessel reported that his enjoyment of the cruise had been marred by bunker oil fumes which had entered his cabin, emanating from the cleaning of a bunker tank for maintenance and also from a bunkering operation. The problem lasted for some days. The passenger was eventually transferred to another cabin. The passenger was concerned about the health aspects.

CHIRP Comment: CHIRP contacted the company's manager responsible for HSE compliance. The manager followed it up with the vessel. The ship's staff had ascertained that fumes had entered the accommodation through an inspection hatch in the air conditioning trunking which was inadvertently open. Once the hatch was replaced, the issue was resolved.

The company advised that in future all the air conditioning trunking hatches will be checked prior to any work involving fuel tanks is undertaken and the passenger accommodation will be carefully and frequently checked. This control measure has been added to the Workplace Risk Assessment which is read in conjunction with the relevant Permits to Work prior to any work commencing. The Company emphasises that these matters are taken seriously and every effort is made to uphold Health and Safety and good industry standards. The Company had already apologised for the inconvenience caused.

This report highlights the importance of urgent attention to determining the cause of fumes or smells in the accommodation. The lessons of the tragedy in 1992 in which two children died in the cabin of a ferry, having been overcome by hydrogen sulphide from the ship's sewage system, must not be forgotten.

A CHILLING EXPERIENCE

Report Text: This story that goes back some years but may still be relevant on some ships today. I joined a bulk carrier as chief engineer. One evening I went into the deep freeze room in my tropical whites for a quick check of the evaporator coil when the ship rolled and the door closed on me. Not to worry I thought, all the rooms could be opened by push rods from inside. I pushed the rod but the door would not open, the push rod was too short and not operating the exterior catch. I rang the alarm bell and hoped for the best knowing that the bell was situated in the galley and that the cook might be still in there.

I waited for approximately 5 minutes, ringing furiously and getting extremely cold in the meantime, when joy, the door was opened by the chief cook who told me that he had gone into the galley to get something, when he heard the bell. Lucky or what?

I checked all the rooms and their alarms. Three had short push rods and three had faulty alarms. I welded extensions to the push rods and the alarms were also repaired.

Lessons learnt: My first job on joining any vessel after that was to check the cold rooms to see that the push rods were long enough to open the doors from inside and that the alarms worked. How many ships have a

testing regime today of such important, but sometimes not obvious, items? All I hope.

CHIRP Comment: Could such an incident happen nowadays? We will welcome your comments.

REPORTS FROM SHIP MANAGERS

Ship managers with well established safety management systems typically have their own in-house reporting schemes. Often such reports would be of interest to the wider maritime community. CHIRP is pleased to receive and publish these. We respect the confidentiality of the reporters and do not disclose identities of ships or companies.

LOSS OF COOLING WATER

Report Text: The ship's main and auxiliary engines have a common cooling water system. This had been identified following a previous incident as a potential single-point failure and had been fitted with additional remotely operated isolation valves. Use of these valves had been practiced through inclusion in the ship's technical emergency reaction training programme.

The incident occurred soon after departure from port when a connecting rod failure in a generator led to a major loss of cooling water from the cooling system common to auxiliary and main engines, with resultant loss of propulsion.

The engineer officer on watch heard a series of loud noises from the auxiliary engine room. He went to investigate and identified the source as a generator which was on load supplying the main switchboard in parallel with another generator. He returned to the control room, started the stand-by generator, sounded the engineers' alarm call and commenced taking the actions detailed in the technical emergency reaction checklist for isolation of the cooling water system.

The catastrophic failure of the connecting rod and consequent piston and liner damage had caused major loss of cooling water from the generator cooling system which is common to the main engine cooling system. Loss of cooling water led to the shutdown of all main engines within three minutes of the failure, but the two generators supplying electrical power remained operational.

As had been practiced in previous reaction training, the engine room team used the remote isolation valves to prevent complete loss of water from the generator and main engine cooling water system. Rapid refilling of the system header tank was then achieved by use of the remotely operated high capacity cooling water pump.

Main engines were restarted within two minutes of shut down. Practiced and professional reaction by the engineers prevented escalation of the incident and ensured continued supply of electrical power and earliest possible restoration of propulsive power.

The incident demonstrated the value of making practicable system improvements where identified and in consolidating the benefit through effective reaction training drills. This coupled with briefings gave staff complete confidence in system recovery. Good

situational awareness coupled with quick reaction led to isolation of the cooling water system on the damaged generator, which prevented complete loss of cooling water from the other generators and from the main engines. Electrical power was maintained throughout the incident and, although main engines were lost for a couple of minutes, the bridge team were able to ensure safe navigation.

CHIRP Comment: This report highlights the benefit of identifying specific risks, devising contingency measures and practicing them so that if a problem does arise, the situation can be quickly stabilised.

Marine Accident Investigation Branch (MAIB) reports and incident report forms are available on their website:

www.maib.gov.uk

MAIB 24 hr Telephone No: 02380 232527

ENGINE ROOM FLOOD

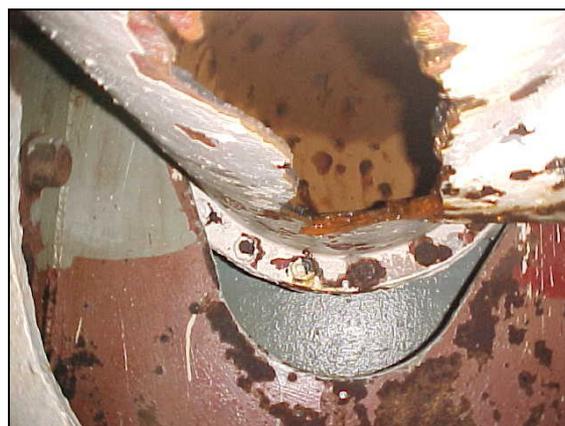
Report Text: A vessel was conducting ballasting operations concurrent with discharging cargo. The vessel is equipped with steel ballast pipe work installed in a ring main configuration.

The Chief Officer had joined the vessel as an emergency relief and had recently received the handover from an experienced Master. This was his first trip on this class of vessel.

During the early stages of ballasting, the Chief Officer was concerned that the ballasting operation was falling behind and would not be completed in time for the vessel's departure - and so a second ballast pump was started at this request. This was a deviation from approved operating procedures and was not discussed with the Master or Chief Engineer. However, ballasting operations were completed well before the completion of discharge. With adequate time in hand a decision was taken to educt a cofferdam that had approximately 90cm of water in it. This was a further deviation from approved operating procedures.

On completion of educting operations, the ballast main was filled directly from No. 1 ballast tank (forward from most tanks) which contained water to a depth of between 10 -15 metres. Line filling was achieved by opening the butterfly valves that have no positioning function, i.e., can only be 100% open or 100% closed. The vessel was trimmed by the stern at this point.

The opening of No. 1 ballast tank valves resulted in water quickly entering the ballast pipe work. When the quickly moving body of water 'hit' the first closed line block valve, a pressure surge (water hammer) occurred that damaged an adjacent section of Engine Room pipe work. The bottom section of a T-piece was forcefully ejected from the pipe work and resulted in an opening approximately 800m x 300mm.



The Engine Room flooded to a depth of 1.1m in approximately 10 minutes. The engineering team promptly manned the Engine Room and efficiently implemented emergency procedures. Emergency bilge injections were immediately brought into action using two separate pumps and water levels reduced to a safe depth.

Close Out Actions:

- Operating procedures are to be reviewed to ensure reference is made to the care needed when filling ballast pipelines. If necessary, procedures should be amended in accordance with the change management procedures appropriate to the Fleet Group in question.
- Handover requirements have been revised for personnel new to the class of vessel concerned.
- The cargo-handling manual will be updated to give clear and concise guidance on how to refill evacuated ballast lines.

Key Learnings:

1. Deviations from approved ballasting procedures must first be discussed with the Master and / or the Chief Engineer.
2. Evacuated ballast lines must be refilled from a low-pressure source in a controlled manner.
3. Personnel new to a class of vessel must be made aware of the limitations of the ballast system.
4. Effective and urgent implementation of emergency Engine Room procedures is necessary if machinery damage is to be avoided.

CHIRP Comment: We thank both these managers for sharing the reports with us.

LEISURE SECTOR

As advised in the last issue of this newsletter, reports of primary interest to the leisure sector will only be published in this full edition of MFB which is only available on our website: www.chirp.co.uk, not in the hard copy distribution.

LEISURE SECTOR REPORTS

BENEFITS OF DSC

Report Text: Our yacht has a tri-lens radar reflector (at the top of the mast), an AIS receiver (not transponder), and VHF (non DSC). We were sailing in the English Channel on port tack at 025° True on a close reach about 60° off the wind. We were not in a traffic separation scheme. We were showing our tri-colour light. There was a strong east going tide so we were making good around 55°. We had the wind vane self steering engaged.

We observed a ship on our port side. From our AIS receiver, we could identify her name and MMSI (Maritime Mobile Service Identity), and that her course was 095°, speed 17.6 knots.

As the stand on vessel, I visually observed that the angle between us and the ship appeared unchanging. This was confirmed using AIS. With the vessel about 1.5 miles away a large torch was directed towards the other ship in an effort to attract attention. This was repeated. A call was made on VHF Channel 16. There was no response. After closely observing the course of the other ship and detecting no change, we altered course to port and tacked thus showing the green sector of our navigation light and to pass behind the vessel. We continued to observe the other ship to make sure there was no course change. The other vessel passed less than 0.5 NM away after our avoiding action.

CHIRP Comment: In using a large torch to attract the attention of the other vessel, the yacht was complying with Rule 36 of the ColRegs which states "If necessary to attract the attention of another vessel any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in these Rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel."

The yacht subsequently acted prudently in determining that action was necessary to avoid collision. In the circumstances of this report, the choices were to alter course to port towards the approaching ship, and to tack, or to alter to starboard and to gybe, away from the approaching ship. Generally, the latter may be advisable, provided that the gybe can be safely carried out, as it takes the yacht away from the approaching danger. With either action, the other vessel needs to be carefully observed in case she concurrently makes a last-minute alteration of course.

The report calls into question whether an effective look-out was being kept on the ship. We sent a copy of the report, without disclosing the identity of the yacht, to the manager of the ship.

Whilst it is permissible in these circumstances for a yacht to use VHF channel 16 to make contact with a ship, it should not be assumed that the approaching ship will be keeping a listening watch. This is no longer mandatory, although many ships still do so.

The yacht had identified the ship from her AIS receiver. Had the yacht been equipped with Digital Selective Calling (DSC) radio, she could have transmitted a

message specifically to that ship. This would have actuated a very audible alert signal on the bridge of the ship.

Whilst the fitting of DSC radio is voluntary for small craft used solely for leisure purposes, the UK Maritime and Coastguard Agency (MCA) strongly recommends that they do so. For more details, please refer to the MCA leaflet No 103 which can be accessed on www.mcga.gov.uk/c4mca/gmdss.pdf.

CONSTRUCTIVE RESPONSE

Report Text: I was motor-sailing when a heavy rain shower had just passed over us. Rain obscured all objects on radar. The rain was followed by fog, visibility down to half a mile. Looming out of the mist was a huge vessel. I immediately made a general call on the VHF to which there was no response.

When the mist cleared we read her name. I then radioed with the name and had a brief exchange on a working channel. Although we were not in danger, I wanted to know if we had been aware of our existence. I was told that she would pass us on our port side. We heard no sound signals from the ship, although we made them when we were aware of her existence. If we were 5 minutes earlier then it would have been very close, perhaps catastrophic.

Lessons Learned: 1. Make appropriate sound signals in bad visibility. 2. Buy AIS!

CHIRP Comment: This incident was reported to us several months after it occurred. We nevertheless sent it to the ship's manager for review. Here is a summary of the response:

The delay in reporting precluded us from reviewing any recorded electronic data. However, we investigated this matter, reviewed the available documentation and interviewed the senior watch officer. Here are a few points:

The ship was in the area at the reported time. The watch officer remembered the voyage in general, but did not specifically recall an encounter with any particular yacht.

The ship's logbook indicates that the perceived prevailing visibility was at least three miles. The watch officer's log entries did note scattered showers and good to moderate visibility at the time. The Company has specific guidelines for watch officers regarding restricted visibility and our bridge procedures define what minimum actions are to be taken when visibility is considered less than moderate, including the sounding of signals.

The reporter assumed that the ship was not aware of the yacht's position. While passing rain showers can temporarily obscure radar targets, it is possible that the sailboat had been acquired and was tracked both electronically and visually before the reported meeting.

The ship did respond and made passing arrangements after radio contact. The yachtsman was correct to alert the ship of its presence, and his actions are welcomed and encouraged.

Our company encourages the use of AIS on vessels, but it is not a replacement for radar and visual watch keeping. Equipping small vessels with AIS systems can aid in vessel identification and detection and we agree that it can be useful in some situations. The ship's AIS system was

operating correctly.

Reported incidents regarding our vessels are taken seriously and can be valuable in evaluating our procedures. It is unfortunate that this incident was reported months afterwards, making a thorough review difficult.

We have included this summary because it illustrates a constructive and open response to a near-miss report.

The reporter has highlighted the requirement to make sound signals in or near areas of restricted visibility. This does of course also apply to small craft. Although such signals may not be audible on a large vessel, they may nevertheless be heard by other small craft.

In this incident, the ship did respond to the VHF call from the yacht, thus indicating that the ship was keeping a listening watch on channel 16 even though there is no longer a mandatory requirement to do so. The reporter has noted as a lesson learned "Buy AIS". To increase the probability of being able to make contact with another vessel, we would add "Buy DSC".

FORESTAY WEAKENED

Report Text: Preparing to enter harbour I attempted to furl the roller reef jib. It jammed at the mast head. In attempting to free it, I alternately heaved on the jib sheet and roller reefing line. Unsuccessful, the jib was lowered to the deck. In harbour the jib was re-hoisted into a higher position in the roller foil and all was well for the next 10-12 day sails.

The mast was lifted out prior to the annual boat lift out and storage ashore for the winter. During the spirited attempt to roll up the jammed jib, the forestay strands at the masthead had untwisted and were nearly straight. Common sense dictates that the strength of the forestay was severely compromised. I was lucky that my subsequent sails put no undue strain on the weakened stay, which could have failed and caused a dismasting.

Lessons Learned: Inspect rigging wires immediately after any unusual strains have been imposed. If in doubt - review.

CHIRP Comment: Dismasting has the potential to cause injury so the reporter was correct in identifying the weakened forestay as a hazard. We would be rather surprised if the damage to the forestay had been caused entirely by the attempt to roll up the jammed jib and wonder whether the stay had already been weakened. In any event, it does highlight the importance of regular inspection of rigging.

We would welcome any thoughts from other mariners on this report.

TARGET NOT DETECTED

Report Text: I was in my yacht with one other person, motor-sailing at about four knots in company with another yacht. At about 1030 hours, we sailed into fog, with visibility about 100 yards. My radar was detecting other vessels at about 4 mile range.

At 1140 hours, I received a VHF call from the accompanying yacht, which was half mile away to port, that he had detected, by radar, a fast moving vessel

crossing ahead of him, which could be coming towards my vessel. My radar screen showed nothing in that direction. At 1145, a dark shape appeared through the fog square abeam to port. Within seconds it passed astern of me at a distance of 20 yards maximum, disappearing into the fog as quickly as it came. It was probably a small fishing vessel, some 30 feet long, of the type commonly used for angling parties. No name could be seen. Estimating another vessel's speed in such conditions is unreliable, but it was excessively fast in the conditions, and could have been 18-20 knots.

We continued the passage with no further incident.

Lessons learnt:

1. My radar picked up no return from the other vessel, possibly because its aspect was "bows on". i.e. radar cannot be assumed to be the perfect early warning system in bad visibility.
2. Having received the warning from the other yacht, I couldn't decide whether to hold my course and speed, or turn away to present a smaller "end-on" target.
3. I should have immediately called the angling vessel to ascertain his name and home port, but I didn't.

CHIRP Comment: To comply with the ColRegs, in particular Rule 19 (Conduct of vessels in restricted vessel), both vessels should have been proceeding at a safe speed. It would appear the yacht's speed of 4 knots was prudent, but the fast speed of the other craft was not. Both vessels should have been sounding fog signals.

As the yacht could not observe the angling boat and could not determine her course, the yachtsman was not able to determine whether an alteration of course would improve or worsen the situation. As an alteration may have resulted in confusion, we are inclined to think that the best option was to maintain course.

It is not apparent that, in the short time the yacht had available, making a VHF call to an unidentified vessel would have achieved anything.

In Issue 23 of CHIRP MARITIME FEEDBACK, we included an editorial on "Defensive Sailing". In an encounter with a fast boat in fog where you are unable to determine whether collision is imminent, we would suggest that the following precautions for consideration:

1. Everyone to be in the cockpit or on deck.
2. If you are not already wearing lifejackets in accordance with the RNLI guidance, do so now!
3. Plot your vessel's position so that if there is a collision, you will have the information immediately available.

We are surprised that the yacht was not able to detect this target at any time on her radar and wonder whether the equipment was performing properly. We note that the accompanying yacht was able to detect the angling boat by radar. In the reported wind conditions of force 2 to 3 with slight sea, so we would not expect that the target would have been lost in sea clutter. We have recommended to the reporter that, on a suitable clear day, he should observe other vessels within a radius of a few miles both visually and by radar. If the radar is not picking up targets that can be seen visually, a

service engineer should be called.

RED LIGHT REFLECTED

Report Text: To enhance my boats' visibility to other vessels radar systems I purchased a radar enhancer. The product was installed according to the manufacturer's instructions by a reputable rigging company. The unit was fitted on the manufacturer's supplied bracket at the top of the mast on the port side.

Before sailing I fully tested the operation of the unit and all was satisfactory within the limitations of the test. I also tested all the navigation lights. I noticed that the unit was brightly illuminated by the tricolour sector red light, with the red reflected light highly visible in the green and white sectors. I was therefore unable to use the tricolour at night and had to revert to using side lights to avoid any confusion to other vessels which could easily have resulted in other vessels taking incorrect actions. Near misses and/or collision could easily have occurred.

In subsequent discussion with the rigging company I decided to cover the whole of the white unit in black self amalgamating tape which would absorb the red light rather than reflect it.

At the time I also contacted the company and the MCA to highlight my concerns. However, the unit was still being produced in highly reflective white plastic after my concerns were raised.

CHIRP Comment: We thank the reporter for having shared this issue and the remedy that was adopted. We have been advised by the manufacturer that the unit is now supplied with a grey non-reflective casing, rather than the previous white reflective material.

Maritime & Coastguard Agency 24hr Info No:
0870 6006505
(Hazardous incidents may be reported to your
local Coastguard Station)

ERRANT BARGE

Report Text: We were sailing and racing in a fleet of boats, heading 180, approx wind direction 270, under spinnaker. With less than 5kts wind we were making approx 2kts across the tide. A sailing barge was under motor heading 090 with the current. It became apparent to us that we were on collision course, but, with the boats approx 150m apart and only a very small change of course to port required for the barge to pass under our stern we assumed we could hold our course. As the barge closed to approximately 100m, they seemed to be taking no action, so we hailed them.

After a few hails we saw a person who had been scrubbing the deck amidships straighten up look forward, drop his deck brush and run back to the helm.

Even at this stage, the boats were still 75m-100m apart. We were still unconcerned as we would nearly pass clear ahead and that the helmsman would make a small turn to port and still pass clear of our stern with

ease. However, for whatever reason he slammed the helm over and turned to starboard, right onto a full collision course. The large heavy vessel managed to turn to a heading of 150-160 degrees by the time it collided with us, but I suspect its direction of travel was more like 120. With almost no boat speed we could take almost no avoiding action.

Thankfully no major damage or injuries were incurred as our vessel is light and we were able to fend off manually to keep the hulls from major impact.

Lessons Learned: The potential here for a major incident is considerable. It was a busy afternoon, with the area full of pleasure craft. The barge was under engine at about 6 knots without helmsman, or watch keeper keeping a suitable lookout.

CHIRP Comment: It should go without saying, but from this report it appears to need repeating, that the keeping of a proper lookout is a prime responsibility. In slightly different circumstances, this minor bump could have been a major collision, with the potential for injury and legal action.

In addition to hailing, the use of an air-horn by the yacht may have helped attract attention on the barge a few valuable seconds earlier.

CORRESPONDENCE

CHIRP welcomes correspondence about the reports we publish. We reserve the right to summarise letters received. We apply the same rules as for reports, i.e. although you must provide your name, we do not disclose it.

DIVING SIGNAL BUT NO DIVERS

Report Text: Fishing vessels quite frequently have the fishing signal permanently displayed, even when tied up to the pier, and a much more serious problem, dive vessels often display Flag-A permanently when they have no divers down. This is extremely dangerous as it will encourage others to ignore the signal flag completely.

CHIRP Comment: Rule 26(e) of the ColRegs explicitly states that a vessel when not engaged in fishing shall not exhibit the lights or shapes prescribed for a vessel engaged in fishing.

Rule 27(e)(ii) provides for small vessels engaged in diving operations to exhibit a rigid replica of flag "A". However, the Rule does not explicitly state that this must not be exhibited when the vessel is not engaged in diving operations. Nevertheless, it is not good practice to have this signal permanently displayed as it may lead to the signal being generally disregarded.

REPRODUCTION OF FEEDBACK

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