

# CHIRP MARITIME FEEDBACK

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## EDITORIAL

Welcome to the latest edition of **CHIRP** Maritime FEEDBACK. Since our last edition much progress has been made towards our ambition to cover all aspects of the maritime industry and to engage a global audience.

**CHIRP** is very pleased to have the support of a new sponsor: International Foundation for Aids to Navigation (IFAN). They have provided funding and support with a request, which is that we should work to enhance awareness of **CHIRP** by increasing the distribution of Maritime FEEDBACK and encourage the submission of hazardous incident/near miss reporting, especially from companies and seafarers based in countries in the Middle and Far East.

We are already seeing an increase in the number of reports we receive, particularly from people outside NW Europe; please keep them coming. If you are worried about the standard of your written English, please don't worry about that. We want information and are not concerned about the grammar or spelling being used to describe events, please add photographs or a drawing to the report. There is innovation being used by some contributors too. We recently received a near collision report that included a mobile phone recording of other ships' conversations on VHF radio, which really brought this unfortunate incident to life.

However, the maritime industry has made little or no progress obtaining assurance from manufacturers that they are always prepared to provide appropriate written manuals for the operation and maintenance of ships and their equipment. In this regard, we have dedicated a section in this edition to repeat the advice that **CHIRP** first issued 10 years ago.

Shipping charterers are expressing concerns over the maintenance of machinery, so given this is the case, why don't we receive reports generated by Marine Engineers? Incidents that reflect the poor management of maintenance not only send people home to their loved ones injured, but are also frequently very expensive. We would love to publish the industry learning opportunities presented by these incidents. Safety and efficiency are two sides of the same coin: This explains why the most successful companies in the world at what they do are also the most successful at managing safety. This is no coincidence!

We are also refocusing our support to enhance safety in the fishing industry and we are very pleased to report here that there is a high level of interest in safety reporting within this sector of our industry, both in the UK and across Europe. However, we would like to hear your ideas on how we can raise interest in reporting in all of the other

branches of our diverse industry, for example, in the hugely demanding offshore sector. This will increase the value of the deliverables from **CHIRP** and send more and more people home in one piece to their loved ones, since that is what **CHIRP** is trying to help bring about. As things currently stand, we all too often see MAIB reports on fatalities. In many cases there is absolutely no doubt that similar circumstances occurred previously and through good fortune they produced 'near misses', which sadly nobody took the time to report or consider what lessons had been learnt from these hazardous occurrences. If there is an absence of reporting, there is no data to work with, and creating change and improvements in the working environment without this data means it is impossible to implement meaningful long-term change. Make no mistake, without robust open 'learning opportunity' reporting, world-class safety excellence in the marine industry is unattainable.

On the subject of change, we mention in this edition a need for companies to improve their Management of Change process. It may take a bit of extra time at the work planning stages but the rewards, including financial gains, are soon realised. Documents and plans onboard the ship should reflect the actual equipment and facilities onboard. Whenever equipment, spares, pipework, etc. are changed, then amend related documents to reflect the current status.

We share with you a very comprehensive report from a recreational seafarer. Aside from some useful lessons learned, we noted leisure users turning off safety equipment in order to conserve battery power. This made us question how many owners of recreational craft, when buying and fitting out their craft, have undertaken an electrical audit of the amperes used by the equipment onboard.

We are pleased to publish our first report from a port authority, and others from observers of hazardous operations at the ship/shore interface. We hope to see more hazardous occurrence reports involving the use of pilot ladders, tug operations, and line handling crews. We have recently seen reports issued as a result of fatalities inside port limits but there has been no advance warning of these risks through the reporting of near misses to **CHIRP**. Please remember that 'learning opportunity' (near miss) reporting is not an intellectual exercise, it can and does save lives!

I hope you enjoy reading this publication: the increased interest in **CHIRP** means we now publish Maritime FEEDBACK with eight pages of information, rather than four as previously, so as to offer you the opportunity to read and share the lessons with fellow seafarers. With your continued support we expect to continue using this expanded format.

*John Rose Director (Maritime)*

[www.chirp.co.uk](http://www.chirp.co.uk)

FREEPOST RSKS-KSCA-SSAT, CHIRP, 26 Hercules Way, Farnborough GU14 6UU (UK only)  
[reports@chirp.co.uk](mailto:reports@chirp.co.uk) Freefone (UK only): 0800 772 3243 or +44 (0) 1252 378947

## REPORTS

### MARINE OPERATING & MAINTENANCE MANUALS – 10 YEARS ON AND NO PROGRES

This report was received in response to the **CHIRP** request for feedback on the current quality of technical and operating manuals supplied on ships.

**Report text:** I would like to share my recent experience on this subject.

I am a second engineer officer with 38 years' experience serving onboard a two year old freight ferry sailing under XX classification.

The following criticisms are by no means limited to the vessel's main propulsion manufacturer. Virtually every technical manual onboard sub-standard in one or more ways as described below.

1. Manuals poorly translated from their original language. The information frequently being so brief that understanding is difficult, ambiguous or impossible.
2. Generic instructions which often do not relate specifically to the equipment fitted.
3. Maintenance schedules which make reference to tasks which are not applicable to the machinery fitted. For example "change the oil in the flexible coupling" when what the manual is actually referring to is the detuner which is lubricated from the main lub oil supply and therefore does not have any oil to change. (It is also likely that by the same token maintenance of some equipment that is fitted has been omitted).
4. Emergency procedures, which are belatedly found not to apply to the machinery fitted and no emergency procedures for the machinery which is fitted forcing the operator to make it up as he goes along.
5. Poor quality drawings and descriptions which lack detail or are generic in nature and not specific to the machinery fitted in the ship leaving one unsure if the job has been done correctly.
6. Operating parameters omitted, for example maximum exhaust temperatures.
7. Instructions which refer to tightening nuts or bolts but do not state the torque, (my pet hate).

In fact the only area in which the manuals are thorough is in the excessive effort put into stating safety measures and disclaiming responsibility for accident or injury.

In addition to the poor quality of the technical library I would also like to highlight the appalling computer based planned maintenance system. My criticism of this system is two fold. Firstly the program itself is horribly complicated and user hostile resulting in difficulty in operating it properly with the potential for maintenance tasks to be missed. Secondly the quality and paucity of the information contained in it means that the information and instructions which it should hold have to be sought elsewhere if they can be found at all.

I lay the blame for this lack of quality information entirely at the feet of the classification societies who issue type approval for machinery without bothering to examine the manuals for the quality of their content, in many cases they

do not appear to have tested the equipment either. There seems to be a deliberate attempt by manufacturers to limit the amount of information supplied with equipment so that the operator is forced to call a service agent a trend that should be nipped in the bud with the manufacturers being reminded that a ship at sea should have all the information necessary to enable it to solve its own problems. Similarly the planned maintenance systems should be properly appraised and sub-standard software rejected.

Sadly I have to report that the state of technical information onboard is poor and has not improved at all in fact it has probably deteriorated.

As I often say to anyone who will listen "f aeroplanes were built and maintained to the same standard as merchant ships, you'd never dare get on one!" It is only the seafarers guile that keeps the accident and incident rate where it is.

I must stress that my employer, to whom this vessel is chartered, is in no way responsible for these deficiencies and when requested for support does its very best to assist and has a very responsible attitude.

**CHIRP Comment:** In 2004 **CHIRP** published a report: **Marine Operating & Maintenance Manuals – Are they good enough?**

The solution at that time was defined as: "The style and presentation of engine operation & maintenance manuals should be subject to review and a set of minimum standards agreed and imposed by the relevant classification societies. In these days of inexpensive desk-top publishing, manufacturers could easily arrange for a bespoke publication to be printed and presented from its database."

**THE MARITIME ADVISORY BOARD MADE THE FOLLOWING RECOMMENDATIONS:**

1. *Manufacturers of equipment for safety critical marine applications across life saving, cargo operating, navigation, communications and engineering disciplines should provide operating and maintenance manuals to a common document standard "using a uniform layout as well as agreed terms, abbreviations and symbols for the correct use of such manuals by mariners."*
2. *The use of simplified technical vocabularies and icons should be encouraged. If used, reproductions of photographs and drawings should be of an adequate standard and documents should be available in an agreed number of languages.*
3. *A relevant authority should verify the compliance/standard of documentation at the design/approval/acceptance stage and audit its continued compliance thereafter.*
4. *Documents produced to the standard should be controlled and include notifications to manufacturers to accommodate through life operational changes e.g. a change of ownership, crew nationality, etc.*
5. *Where integrated systems are fitted, a manual covering the entire system should be available. Particular attention should be paid to Failure Mode Effect Analysis for such systems.*
6. *Training regimes should be amended where necessary to ensure familiarity with the use of manuals produced to the standard. Thereafter, provided the seafarer*

continues to encounter manuals produced to the standard, efficient familiarisation and operation should be promoted.

**CHIRP Comment:** It is now 10 years since the publication of this report – the industry appears to have made little progress addressing these concerns that have a significant impact on the ability of seafarers to conduct their work in a safe and efficient manner. Ship Managers should reconsider the above listed recommendations of best practice and be advised of the following:

#### IACS RECOMMENDATION 71 GUIDE FOR THE DEVELOPMENT OF SHIPBOARD TECHNICAL MANUALS.

A shipboard technical manual is a generic term for any document that explains how to use, maintain and operate the ship and its equipment. A technical manual is an essential part of the product and its usability has considerable importance for the ship operators. Accordingly the provision of suitable shipboard manuals should be recognized as a major responsibility area.

*“Information should be accurate and complete. Text should be clear and concise. Sentences should be as short and simple as the subject allows. Paragraphs should be short. Technical descriptions should be system or function based. Instructions should be procedure based.”*

*The information should be organised in a hierarchical and consistent manner by use of headings. Step numbering should be used to support the structuring into levels of information. Illustrations (photo, drawings, and graphs) should be used to support information and instruction text”.*

#### PROCEDURES FOR PORT STATE CONTROL THE IMO STATES:

*“Manuals, instructions, etc. 3.5.51 The PSCO may determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition and operation of the ship and its equipment and that they are aware of the requirements for maintenance, periodical testing, training, drills and recording of log book entries.”*

*IMO MSC.1/Circ.1253 dated 26 October 2007*

#### SHIPBOARD TECHNICAL OPERATING AND MAINTENANCE MANUALS

1. The Maritime Safety Committee, at its eighty-third session (3-12 October 2007), considered the recommendation that the attention of all relevant stakeholders needs to be drawn to the importance of ships crews having access to up-to-date, accurate and user-friendly shipboard technical operating and maintenance manuals, particularly for safety-critical marine equipment.
2. The Committee noted that there exists a global and competitive marketplace for marine equipment and that seafarers were expected to assimilate different equipment fitted on board quickly and operate them efficiently. Also, seafarers were expected to be able to move from ship to ship with few restrictions; this flexibility being essential for the efficient management of human resources. Consequently, seafarers are likely to encounter a wide variety of equipment fitted on board.

3. The Committee also noted that the availability on board ships of up-to-date and accurate operating and maintenance manuals could be enforced via the implementation and enforcement mechanisms of the International Safety Management (ISM) Code.
4. The Committee further noted IACS Recommendation No.71 (dated September 2000) Guide for the development of shipboard technical manuals and agreed that this Guide provided a useful reference for those responsible for developing such manuals.
5. In light of the foregoing, Member Governments are invited to:
  1. recognize the necessity for up-to-date, accurate and user-friendly shipboard technical operating and maintenance manuals to be available on board ships;
  2. recommend that IACS Recommendation No.71 is used as a model for shipboard technical operating and maintenance manuals;
  3. recommend that shipboard technical operating and maintenance manuals should be provided in the working language of the ship and if the working language is not English, French or Spanish, a translation into English, or French, or Spanish should be provided; and
  4. encourage ship designers and shipbuilders to provide diagrams and drawings explaining the operation of integrated ship systems as well as emergency operation of such ship systems, recognizing that ship systems may be composed of several individual pieces of equipment.

*And bring the above to the attention of ship owners, ship masters, shipbuilders, recognized organizations and, in particular, manufacturers of equipment for safety-critical marine equipment.*

#### SHIPPING COMPANIES AND MANAGERS:

There is ample support through the ISM Code and ISO 9000 standards and, for British flag vessels, the Code of Safe Working Practice for Merchant Seaman, for owners to demand in their purchase orders that supporting documentation in plain English must be provided before delivery is taken.

When apportioning accountability for this work:

- Manufacturers are responsible to provide written procedures, in plain English. It is not appropriate to pass poor documentation to the seafarer/operator and expect compliant standards of operations.
- Ship managers should ensure that the provision of operation and maintenance manuals in accordance with IMO MSC.1/Circ.1253 is included in the delivery specification and check that they have been provided in accordance with the delivery contract. Application of a Management of Change (MOC) process during any fleet addition or change of equipment is an extremely useful tool; this should include the transfer of documentation when receiving a new vessel and/or equipment.
- It is important to ensure all manuals reflect the current needs for the operation and maintenance of the ship and equipment. The ship manager should consult their

Classification Society if there is a need for deviation from equipment manufacturers' instructions. In all cases where there are significant changes, the sea going staff should be consulted for feedback prior to implementation of the proposed changes.

The issue over poorly written, inaccurate or incorrect instructions in manufacturer's operations and maintenance manuals is a major concern that has been with the industry for over 10 years; little progress has been made. **CHIRP** wishes to thank the reporter for the report and hopes this will stimulate more dialogue on this important subject.

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## **No EMERGENCY PROCEDURES ANNOUNCEMENT ON PASSENGER FERRY**

**Report text:** I thought I would let you know that on a recent crossing on a cross channel ferry there was no 'emergency procedures' announcement whatsoever. We sailed blissfully on. When I mentioned this to the friends I was visiting, they confirmed that this was regularly the case when they crossed from time to time.

Maybe I'm way out of date and it is not a statutory requirement any more, in which case tell me to go away but as the boat was full of children and the elderly and infirm etc., in fact the usual sort of passenger mix, it seemed a bit casual to me.

**The Nautical Institute received this report, as it was a hazardous occurrence and not an incident, as part of the joint exercise between CHIRP and their own MARS programme, it was agreed CHIRP should follow up the report with the ferry operators.**

**CHIRP** contacted the ferry operator; they replied by advising their company has an exceptional safety record and manages its affairs in strict conformity not only with prevailing legislation but also its own strict operating procedures, which in many areas exceed legal requirements. They were disturbed by this apparent breach of their prescribed procedures. They reacted by issuing a fleet wide memorandum reconfirming to all officers the need to comply with standard procedures. They stated the need for compliance with Safety at Sea Convention (SOLAS), but also staff need to demonstrate to their passengers their compliance with SOLAS through the routine announcement of safety procedures in the event of an emergency.

**CHIRP Comment:** The ferry operator reacted in a positive manner to **CHIRP's** notification to them.

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## **INADEQUATE SAFETY PRECAUTIONS WHEN WORKING OVSIDE**

**Report text:** Pilot cutter was on routine operation when the coxswain noted a small punt with two men on it painting the vessel's bow. Concerned for the crewmen's safety as there was always passing traffic/wash etc. and the fact they were not wearing any buoyancy aid, the coxswain telephoned his supervisor to advise of the situation.



The port supervisor arrived on the quay and noted the punt in the water. Also on the inboard side and out of view of the pilot cutter was a crewman perched on the bulb of the bulbous bow of the ship. At the same time an officer from the ship arrived on the quayside to enquire what was going on.

Our port supervisor pointed to the operation that was happening and highlighted the fact that none of the three men (two on the punt and one on the bow) were wearing any buoyancy aid. The officer seemed unconcerned stating that his crew can swim. Buoyancy Aids (Life Jackets) were supplied and the work on the punt continued and the man on the bow came ashore.

The use of the lifejacket should be questioned as they are for lifesaving purposes and not for this type of work.

There should really be proper work wear buoyancy aids.

Harbour Authority – Lessons learned: The Harbour Board Staff are encouraged to note safety concerns and intervene when necessary.

**CHIRP** contacted the Danish ship operator requesting any information on the lessons learned from any internal review they may have had. The operator replied the notification had been sent to the Owner/ Captain of the vessel concerned. **CHIRP** is disappointed that despite sending a further request, no information was made available on the safety lesson learned.

**CHIRP Comment:** The harbour staff stopped the job due to the concern for the seafarer's safety, in particular the person could have been washed off the bow from the wake of a passing vessel and then hit his head or suffered hyperthermia from being in the cold water.

The Harbour Authority acted in a very responsible manner when observing the hazardous occurrence with the men working over side. They have issued advice to their own staff to continue to exercise vigilance when patrolling the harbour. The Harbour Authority were pleased to see **CHIRP's** attempt to follow up their concerns with the ship manager.

The report illustrates a poor application of the SMS and the need for the use of risk assessment and a permit to work when working over side. Charterers using their own company branding on Owner/Master controlled ships operating in commercial pools should consider the need for compliance with the Charterer's stated QHSE policies and in particular have an equivalent SMS, whether or not they provide the crew doing the work.

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## RESTRICTED VISIBILITY: YACHT HAS CLOSE QUARTERS SITUATION WITH BULK CARRIER

**Report text:** A 30ft cutter (CL) and a 33ft sloop (D) were sailing in company across the English Channel. Both vessels had radar and radar reflectors, but not AIS. Crew of (CL) included an Ocean Yacht Master and two Day Skippers, one with a Royal Naval bridge watchkeeping certificate and on (D) a Yacht Master and Day Skipper. Again the latter held a Royal Naval bridge watchkeeping certificate.

We left Alderney at 0600 with a forecast of light/ moderate westerly winds and moderate locally poor visibility, improving later, bound for the Needles. Initially we proceeded under power with visibility of one to two miles. Our planned course was to the east of the Casquets TSS. We crossed the east bound shipping lane (not a Traffic Separation Scheme) uneventfully although we did use radar having only one contact which passed at a range of two to three miles without being seen visually. Visibility then improved to three to four miles with a fair wind and we had a pleasant sail without engine for a couple of hours. As the radar is a heavy user of current and visibility was good, we shut it down.

At about 1400 we were approaching the west bound shipping lane when the wind dropped and within the space of less than ten minutes we entered fog with visibility of 100 yards or less. The headsail was furled and we started to motor again and switched on the radar.

Although reasonably experienced yachtsmen we had not had recent experience of radar plotting for collision avoidance. CL's radar was more reliable than D's, which only worked intermittently, so CL took the lead with D in station just visible astern, and in VHF communication on channel 6 dual watch channel 16.

We had seen no shipping before the fog but on switching on the radar at 8 miles range there were 6–7 contacts, ships proceeding westwards in the shipping lane. One of CL's crew kept radar watch; the screen was visible to the helmsman and other crew. It was soon evident that most of the contacts were passing clear but one 3–4 miles away on the starboard bow was a cause for concern. After plotting this contact for five minutes or so we decided that risk of collision existed and that we should alter course to starboard. We made a bold

alteration of 90 degrees from a course of roughly north to one of east, when the contact on a westerly course was between two to three miles away.



CL's radar was set with course up (not the more convenient north up) and so when we altered course all the tracks of radar contacts changed and in the next few minutes it was not clear if the true courses of any of the contacts had changed. However we felt confident that from the previous plot we should be safe. We then suddenly saw a large indistinct visual contact on our port beam at a range of two to three cables. At first we thought this was a ship heading west but after a few moments we saw a bow wave and realised it was a large ship heading straight for us. Seconds later the helmsman saw that we were very fine on the ship's starboard bow and altered course violently to port reversing our course from east to west, D following. A large, Chinese registered bulk carrier (BC) just passed us at a distance of less than 100 yards (see photo attached, taken from D). This was too close for comfort.

We altered back to our northerly course and had no further worrying incidents although we kept a close visual and radar watch. The fog did not clear until we were within two miles of the Needles lighthouse at about 1900. It took a little time and thought to work out what had happened.

**Overview:** We had altered course from north to east to avoid the BC, which we had plotted as steering west. However as we came into close quarters she was steering south so she had clearly altered course. Our radar plotting on CL was not accurate enough to have seen this although on D they had just noticed this but did not have time to notify CL. It seems clear that BC had altered course to port and to a course of south at the same time as we had altered to a course of east. We had both altered from one set of converging courses to another at the same time!

Who was to blame for this incident, which clearly could have resulted in a collision with serious, possibly fatal consequences? On CL and on D we felt we had made the right decision to alter course to starboard to avoid BC. She had however altered course to port at the same time to try and avoid us. The International Regulations for Preventing Collisions at Sea (IRPCS or "Colregs") Rule 19. Conduct of vessels in restricted visibility paragraph (d) states:

A vessel, which detects by radar alone the presence of another vessel shall determine if a close quarters situation is developing and/or risk of collision exists. If so she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible the following shall be avoided:

- (i) an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;
- (ii) (an alteration of course towards a vessel abeam or abaft the beam.

It seems clear that BC had contravened this rule. CL's radar plotting was weak being 'head up'. This was perfectly adequate to cope with CL being on a steady course, but with 6–7 contacts and a major alteration of course, it proved inadequate. However CL/D complied with Rule 19 by altering course to starboard when we considered that a risk of collision existed whereas BC contravened Rule 19 by altering course to port for a vessel forward of the beam.

One of us (the Ocean Yacht master) has discussed this incident with a very experienced professional Merchant Marine Captain and Extra Master who is currently an Officer with the Government Agency. He agrees with this assessment that we were right and BC was wrong although he did point out that we should have kept a better radar plot and that in fog there are no "stand on" and "give way" vessels; all vessels should keep clear of others following Rule 19.

Lessons Learned: The following arise from a discussion between both crews that evening in port:

1. Radar is reassuring and useful in fog but must be used actively. A plot of all contacts should be kept either on a plotting sheet or with a china graph pen on the radar screen.
2. North up stabilised radar is easier to interpret than course up. The Colregs require that "Proper use shall be made of radar equipment if fitted and operational". This does not mean that the latest most refined radar set or AIS is essential but it does mean that the equipment available must be used to the best advantage.
3. Commercial shipping cannot be relied upon to follow the Colregs and so close visual, auditory, and radar watch is essential. We did not hear sound signals from BC; we did not use our own foghorn, although it was available, as we felt it was unlikely to be heard on a large merchant ship and if we used it routinely we were at risk of exhausting the aerosol canister so that it should be conserved for emergency use only.
4. Do not alter course to port, except for a vessel on the starboard quarter, without careful consideration of all other options, except as in our second alteration, as a last resort.
5. An alternative to an alteration of course is to reduce speed or stop which should always be considered. In this case if we had stopped we should still have been at risk when BC altered course towards us. We felt that a substantial alteration of course of 90 degrees

was more likely to have been evident to BC than a reduction of speed of five knots.

Fog at sea is always a cause for concern and sometimes frightening. I hope these comments may help others when faced with this difficult situation.

**CHIRP** requested further information for clarity of their understanding and was advised by the reporter, they didn't hear any fog signals before the incident, but did afterwards, as they approached the fog bank they heard nothing. They were very surprised when they switched the radar on to have seven/eight contacts in the fog bank, and not a sound from any of them. They now assume everybody relies on AIS. Also whilst BC had a significant bow wave, they didn't notice much wash after she passed us. In retrospect they believe BC must have slowed.

Their feeling was the BC didn't see their alteration and thought that BC had avoided the collision by BC actions, whereas in reality it was a Stockholm/Andrea Doria collision type situation.

**CHIRP Comment:** The quality of this recreational seafarers' end of passage review and their in-depth sharing of lessons learned is commendable.

Seafarers are warned, AIS is not a substitute for radar or for use as a vessel plotting device, it is simply a method whereby vessels can be identified and basic information about them received. The International Maritime Organisation (IMO) in Resolution A.917(22) 'Guidelines for the onboard operational use of shipborne automatic identification systems (AIS)' states AIS are designed to be capable of providing information about the ship to other ships and to coastal authorities automatically; they are not a device to be used for collision avoidance purposes. Also be aware of the risk of human error and the use/ set up of equipment causing an AIS signal not to be detected by another station. Many recreational craft are fitted with class B systems, vessels over 300gt are fitted with class A systems and research has shown that in some circumstances AIS-B transmissions may not be detected by AIS-A equipment and they can even turn off AIS-B reception.

In addition to the lessons learned by the reporter, recreational seafarers should be aware, even when a large vessel has eased off its propulsion, a significant bow wave will still occur until it has almost stopped in the water. It is also prudent to review the boat's inventory of safety equipment and allow for redundancy. As there was concern of their air supply for the horn, the crew could have used a hand operated or mouth operated horn as a back up.

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## SAFETY BOAT TRAINING FOR YACHT CLUB

**CHIRP** recently received a report from a race officer at a sailing club who was monitoring VHF channel M1 (one of 2 private channels widely used by sailing clubs for race control) and who overheard a conversation between an alleged safety boat crew and the race officer from another club.

### AUXILIARY ENGINE MAINTENANCE

A major charterer has noticed a significant increase in the number of incidents involving failure of engine connecting rod bolts in four stroke auxiliary engines. In most cases these incidents resulted in catastrophic damage to auxiliary engine components with some of them resulting in engine room fire and human injury.

The charterer noted that planned maintenance systems do not always capture the maintenance routine of connecting rod bolts as specified by the makers. A lack of experience, knowledge and skill of the personnel involved in the tightening of the connecting rod bolt was also observed. The importance of proper tightening was not understood or appreciated, resulting in the manufacturer's specified tightening procedures and recommendations related to stage-wise tightening not being complied with.

In addition to compliance with manufacturers' recommendations, the charterer has recommended that precautions in place for this work should include but not be limited to:

- Effective supervision by a senior engineer who should not be involved in the work;
- Close inspection of the connecting rod bolt, its threads and pitting on the contact surface of the bolt head;
- Thorough cleaning of landing faces of the bolt head and nuts prior to assembly;
- Bolts are given a good surface finish to reduce stress raisers;
- Tightening of the connecting rod bolts using correct tools and manufacturer recommended torque/ hydraulic pressure;
- Tightening of bolts done in stages as recommended by the manufacturer;
- Calibration of the tightening tools such as torque spanner and gauges on hydraulic jacks before use;
- Retightening checks of bolts to be carried out after stipulated time of test run of auxiliary engine as specified by the maker;
- Locking of the nuts, if applicable has been completed and checked thoroughly;
- Connecting rod bolts management systems on-board the vessels are in place in order to ensure that worn and discarded bolts are appropriately disposed of and never reused in error;
- Bolts are procured from the original equipment manufacturer;
- Ensure adequately skilled personnel are involved and are aware of the correct tightening procedure, and

**CHIRP Comment:** This charterer's advice is most useful. CHIRP has an open invitation to ship owners, managers and charterers to share their experiences and advice on lessons learned.

The Yacht Club boat crew used VHF M1 to call their race officer several times for information including details of the location of the boats ignition key/lock, how to connect the kill cord and the location of the kill cord switch. The reporter was concerned by the probable lack of competence and limited experience of the boat crew that could have significantly affected their ability to operate as a safety boat effectively and safely.

The reporter highlighted the lesson learned: there is a need for appropriate safety boat training and certification followed by appropriate regular experience of using safety boats by their crews.

**CHIRP** contacted the Yacht Club concerned, who advised they use only 'Patrol' and not 'Safety' boats when supporting club activities and that they have considered and adopted the RYA safety guidance for clubs. This report has also been discussed with the RYA.

Clearly, driving a club safety boat is vital to the safe running of dinghy racing and sail training within clubs and in an ideal world all club safety boat drivers would be RYA powerboat level 2 and RYA safety boat qualified. However, the RYA recognises that this is not always practical for some clubs and its volunteers and these cases it has put together detailed guidance which is available at:

<http://www.rya.org.uk/newsevents/eneletters/theclubroom/sept2011/Pages/Callingallsafetyboatdrivers.aspx>.

The RYA recommends that crews are reminded of the guidance every time those crews take up their duties.

An accredited Safety Boat Course such as that provided by the RYA is strongly recommended. <http://www.rya.org.uk/coursestraining/courses/powerboat/Pages/Safetyboat.aspx>

The RYA Safety Boat Handbook (G16) is a useful reference document for advice to anyone involved in providing a safety boat back up for dinghy sailing and windsurfing. Additional free information on risk assessment and safety auditing can be downloaded from <http://www.britishrowing.org>

Reports under review by the **CHIRP** Maritime Advisory Board for consideration and inclusion in the next edition of Maritime FEEDBACK include:

- Mooring gang unsafe practices
- Cruise ship tender lifesaving equipment
- Rescue boat operations
- Out of date LSA and FiFi spares
- Operation of Vents
- Engine room equipment leakages
- Mooring winch brakes
- Dragging anchor
- Pilot ladder incorrectly rigged

## 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.

### INCIDENT INVESTIGATIONS

We receive accident reports from the UK's Marine Accident Investigation Branch (MAIB): These are free to download from their web site <http://www.maib.gov.uk>

Reports published since the start of 2014 are listed below. We draw your attention to one report in particular that is relevant to this Maritime FEEDBACK.

CMA CGM Florida and Chou Shan Accident Investigation Report Published 1 May 2014:

- VHF radio was inappropriately used by both vessels for collision avoidance to negotiate a manoeuvre that was contrary to the COLREGS.
- VHF radio communications were conducted in Mandarin and were not fully translated into English to enable the OOW on one vessel to understand what had been tacitly agreed.
- Standing orders on both vessels lacked specific metrics for when the master was to be called.
- Use of AIS priority and the multiple AIS target list encouraged the OOW on one vessel to focus on those vessels with the smallest CPA or range at the expense of maintaining a more strategic overview of the traffic situation.

### MERCHANT VESSEL REPORTS

*Stena Alega*: RoPax ferry (No 12/2014) Anchor dragging, subsequent grounding at Karlskrona, Sweden.

*CMA CGM Florida and Chou Shan*: (No 11/2014) Container vessel and bulk carrier. Collision between container vessel CMA CGM Florida and the bulk carrier Chou Shan in open water 140 miles east of Shanghai.

*Christos XXII*: (No 10/2014) Tug Collision between tug and tow Emsstrom off Hope's Nose, Tor Bay, England.

*Danio*: (No 8/2014) General cargo vessel. Grounding off Longstone, Farne Islands, England.

*Sirena Seaways*: (No 6/2014) ROPAX Contact with berth at Harwich International Port.

*Douwent*: (No 4/2014) General cargo vessel Grounding on Haisborough Sand.

### FISHING VESSEL REPORTS

*Prospect*: (No 7/2014) Grounding on Skibby Baas and foundering in the north entrance to Lerwick Harbour, Shetland Islands.

*Achieve*: (No 3/2014) Foundering of fishing vessel and the death of a crew member north-west of the Island of Taransay, Western Isles.

*JCK*: (No 2/2014) Foundering of fishing vessel with the loss of her skipper in Tor Bay.

*Speedwell*: (No 1/2014) Foundering of fishing vessel with the loss of her skipper in the Firth of Lorn.

### LEISURE CRAFT REPORTS

*Isamar*: (No 9/2014) Private pleasure yacht grounding off Grand écueil d'Olmeto, Corsica.

*Milly*: (No 5/2014) Rigid Inflatable Boat Ejection of six people from RIB in the Camel Estuary, Cornwall resulting in 2 fatalities.

### MAKING REPORTING HAPPEN

We are undertaking a joint initiative with The Nautical Institute to establish a group of voluntary Ambassadors around the world. The aim is to encourage the submission of MARS reporting of accidents and CHIRP reporting of hazardous occurrences. Briefing material and coaching will be provided to each of the Ambassadors. (See article in *Seaways* February 2014).

There are still vacancies to allocate. If you want to help improve the safety culture amongst seafarers in your local region, then please email: [mars@nauticalinst.org](mailto:mars@nauticalinst.org) or [john.rose@chirp.co.uk](mailto:john.rose@chirp.co.uk)

### FOLLOW US ON FACEBOOK

We are encouraged by the enthusiastic response to our Facebook page and delighted to recognise the support from over 1050 followers in 47 countries around the world. You are all helping us to make **CHIRP** more accessible to the global community of seafarers. We encourage more seafarers to join us. If you enter "Facebook CHIRP Maritime" into your search engine, you will easily find us; or use the link from our website [www.chirp.co.uk](http://www.chirp.co.uk)

Since the last publication of Maritime FEEDBACK we have published short articles on:

- Bollards – do you know the maximum mooring load capability of bollards on the berth?
- Pilot disembarking from a tanker fell 3 metres on to the deck of a pilot launch when pilot ladder failed.
- Maritime Piracy statistics 2013.
- Lloyds Register and UK P&I club update ILO MLC smart phone app.
- Being close to your lifejacket is like being close to your bulletproof vest – it is just not close enough!
- How many hazardous occurrences do you see in the video?
- Fish fingers! The dangers of a lapse in judgment or making a hasty decision to save time.

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