

Why ships *really* collide

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I am now approaching 50 years at sea with 35 years in command, having been master of ships of every type including passenger ships, bulk carriers, ice class vessels, container ships, coasters, heavy lift, in sizes from ocean going tugs to 300,000 dwt OBOs. I have navigated from the ice of the Arctic and Antarctic to the rivers of South America and Africa. I have extensive pilotage experience and, having worked in several senior shore positions, also know the industry from that perspective. I have had published more than 30 articles on the sea and lectured in many countries of the world. This article was written in answer to a number of requests I have received from shipmates of the past, asking me to pick up a pen again to write of their distress at the current situation which I share. Of course it represents my personal views and not those of the Institute: *Michael Lloyd*.

The shipping industry, from the mariner's viewpoint, is rather like a set of Chinese boxes. Open one and there is another inside and another inside that, with each more remote and more difficult to deal with. Every casualty produces a flurry of documents, rules, advice on how not to collide and the inevitable 'we fail to understand' pronouncements. Blame, of course, is apportioned without going too deeply into the boxes and we settle down to await the next inevitable incident.

Without denigrating the excellent work carried out by this Institute since its inception, the smell of the sea sometimes has difficulty pervading the pages of *Seaways* and often the true picture of seagoing as experienced by the majority of mariners in merchant ships becomes obscured. There are too many people in

this industry with inadequate professional knowledge and little command experience trying to dictate the rules of the profession. Thus far too many false premises are allowed to be promulgated without their veracity being challenged.

The proliferation of safety departments especially in the larger companies, has not helped towards a sensible evaluation. All too often, these safety departments have as their prime concern the protection of the company that employs them rather than the interests of those at sea; they act more as internal company police forces.

Naturally, as soon as we mention safety at sea we think about collisions and the near-misses most of us have encountered at some period in our careers. So I shall take collisions at sea as the prime subject of this article and start trying to open a few of these Chinese boxes.

Lookout levels

One strange anachronism remains as a vestige of shipping acts of the distant past; the level of lookout assigned continues to differentiate between day and night, thus completely ignoring the advances of electronic aids available today. In terms of the lookout, this differentiation is a nonsense: both day and night require the same vigilance. If a lookout is required at night, then one is required during the day. It is very rare for a watchkeeper to detect a ship or a danger to navigation before the radar does, while at night the OOW keeps a better watch on the radar. In contrast, the bridge tends to be far busier during the day, with extra tasks and distractions. Therefore there may be a far stronger case for lookouts to be appointed during the day than the night.

If the shipping regulations demand that a lookout, in addition to the OOW, is essential, and I have no disagreement with this, we must recognise that this must be maintained continuously. Thus the duty lookouts should not be allowed to leave the bridge for any reason – which then creates the need of reliefs for these lookouts. No ship is manned to do this or if it is, the interference caused by maintenance duties would prohibit such a watchkeeping system.

Under present regulations on a well manned and managed ship, the watchkeeping system should be flexible, allowing the master to make adjustments commensurate with the weather, traffic, occupation of the ship (such as coastal, ocean, drifting or anchored) and most important, the experience of the officers and ratings under his command. However there will always be collisions, purely because those on the bridge controlling the ships are human beings and not robots; thus human fallibility will continue to be the major cause in such incidents for the foreseeable future.

When we examine the actions that can be taken to alleviate these human failures, the limitations of these actions must also be considered. Broadly we can list these as political, financial and human.

The ideal situation

Let us start with the ideal situation. First, the ship will be properly manned. This means the ship can man the bridge at all times with a watchkeeping officer and a properly trained seaman lookout. Few ships today can claim even this.

These six seafarers should be the dedicated navigation team of the ship and required to perform no duties at sea not directly connected with the navigation of the vessel. No ship today can claim this.

They should be highly motivated, of good morale, properly trained, with certification from recognised and respected government departments. Before joining a vessel with navigation and control equipment with which an officer is not familiar, a course in such equipment should be undertaken. A watchkeeping course should be undertaken by ratings who are to be employed as lookouts and so are by default, part of the navigation team. Whatever they are being trained in currently, it does not include acting as a lookout.

These last two criteria may seem extraordinarily ambitious yet all of the above are normal in the air industry. No one yet has been able to present me with a logical argument as to why the shipping industry standard should not be the same as that of the air industry. If such criteria could be instituted on a worldwide scale,

the incidents of near miss and collision would dramatically decline. But of course this will not be done.

The prevailing situation

Today the second or third officer is recruited through a manning agency from a third-world country with certificates that no one can check as, if they are sighted at all by the employing company, they will be in photostat form. Whereas in the past we had economic refugees as seamen, now they also come as officers who do not want to be on the ship or work for that particular company; in fact they do not want to be at sea. But the pay, although poor by international standards, is better than anything that they can achieve at home. There are many better qualified officers available but the owners or managers will not pay for them.

The officer will be flown out to the ship, which will often be sailing the day he joins, direct from a long flight. The chief officer has been working for 16 hours without a break and with cargo loading coming to an end, has no time to show him round. The ship sails – and that evening he is on watch in traffic with navigation and control equipment he does not know, and with a lookout who cannot speak the same language and has no idea of how to perform his duties. The real wonder is that there are not more incidents.

Of course this does not happen on every ship – many captains and chief officers try to ensure that their officers have at least a degree of understanding about the bridge equipment – but if I said it happens on the majority of ships, I feel that I am near the mark. With the unwillingness of many companies to train or to recruit and pay properly qualified officers, the full workload now often falls on the senior officers, who can only do so much. In addition, ISM has added considerably to the workload thus reducing the navigational vigilance. All too often it is never mind the watch, fill in the paper.

Why does all of this happen and why is it allowed to carry on irrespective of the STCW and ISM initiatives? We now must open a few more boxes.

The political dimension

With the STCW Convention, the standardisation of training and certification was meant to herald in a new dawn. Of course no one really believed that, especially the signatories; however it was a brave attempt at least to try to get some control over certification and

training. Regrettably, while examination requirements may be the same, the examination protocols are not. STCW led to adverse effects on standards as it reduced the examination standard to the lowest common denominator, thus reducing the value of the certificates of traditional maritime nations from professional to technical standard. They also allowed those holders of certificates from nations with low standards and corrupt administrations to sail legally on all vessels and worse, to be able to trade low-value certificates for high-value ones, once again debasing the value of certificates that have been traditionally highly regarded. The result has been an overall lowering of standards and qualified officers leaving the sea as their professional qualifications and their value were debased and their salaries reduced. Professional values were surrendered for the sake of political expediency.

Did this happen in the air industry? Of course not; in fact the Joint Aviation Authority (JAA), chose the highest standards from the participation nations in their regulations, so the resulting standards of qualifications improved. Why, therefore, was it necessary to have lower standards at sea while opting for higher standards in the air? For the officers from the traditional maritime nations, and indeed for the safety of ships and seamen in general, STCW was a disaster.

The financial dimension

The creed of the majority of owners and managers is: the lowest pay and conditions, the lowest manning possible and the maximum profit. A deep-sea foreign going ship of 500 tonnes, voyaging across the Atlantic in winter, can be manned with just the master and one officer, while the number of ratings carried can be decided by the flag state on the evidence of details of the ship submitted by the owner or manager. Yet that ship can have a speed of 15 knots and at that speed, can punch into a far larger ship, sinking it in minutes.

For those who have not had the unpleasant experience of watchkeeping six hours on and six off for more than a month, I assure you that the standard is not very high. I was making a deep sea tow at the time in the Atlantic with two deck ratings from the Spanish fishing fleet, who could not steer or speak English. We had an oven timer on the bridge to wake us up as we kept dropping off to sleep towards the end of the watch.

The majority of the ships steaming

around today are undermanned. Many have language problems on the bridge and internally. If that is not a worrying statement, then the sterile conditions prevailing on many ships, with crews of mixed nationalities often existing in a system of voluntary apartheid, poor pay and conditions and a shoreside personnel department that is purely a hiring firing agency all contribute to a general indifferent attitude and poor morale.

It is unfair to simply blame the captains as most of those in the office ashore, including those ex-seafarers and the safety departments, know about the problems and do nothing to alleviate them. This, of course, should not stop captains from supporting the correct treatment of their crews but with the gradual erosion of the master's powers over the years, his little remaining authority is seldom recognised by the operating office. If the master of a ship feels that the manning of his ship causes him concern regarding the safety of the vessel, or if he feels that the lack of a common language on board interferes with safe watchkeeping, what are his alternatives?

We all know the professional answer but if the master refuses to sail, what is there to support him? In the international shipping world, there is no union to come to his rescue. If he belongs to this Institute will this body come galloping to his assistance? Even though The Nautical Institute has a code of ethics? In truth, he is on his own against all the guns a large shipping company can bring against him. The master sails, regardless of the state of his officers and crew.

Fatigue is a human condition but the causes are financial. The first cause is the chronic undermanning on most ships today. It is not uncommon for bridge officers to work more than 16 hours a day in port with the chief officer sometimes sailing without having slept for 24 hours. Yes, there are forms stating the required hours of work and the forms to fill saying how many hours have been worked but we all know that these are mostly falsified. Where is the support for those who fill them in correctly or refuse to sail? There is none. The owners and operators know this perfectly well.

Now let us say that, wonder of wonders, a ship truthfully completes the forms and finds that it cannot sail, and even more startling, advises the port of this. I wonder if there is any oil or bulk terminal in any port that will accept the ship remaining alongside after completion in order for crew to rest before sailing? Or any port

that has set aside berths that those ships can be moved to for this purpose? The argument that the ship could go and anchor is ludicrous as not only would the fatigued officers have to go about their duties unberthing, but then would have to do anchor watches, thus defeating the purpose. Undermanning coupled with incompetent crew putting a greater workload on the competent causes fatigue. Rather than producing meaningless paper trails we should be tackling these issues.

The human element

As long as we have people on the bridges, there will be accidents. We must do all we can to alleviate the problem but the constant flow of watchkeeping advice from a myriad of sources is worthless until the basic underlying causes are solved.

Once ships sailed through areas like the Singapore Strait and the Dover Strait without the master on the bridge and without routeing. It takes a very foolhardy master today to leave the junior officer alone on the bridge in such places, even with routeing and vessel traffic services. We have a right to expect that the officer on the bridge should be competent but by whose standards? By my standards, I have not seen a competent junior officer for some time. I am certain they exist but the owners and operators do not want to pay for them. The air industry again does things a little differently. If an owner or operator wishes to employ a foreign national to fly its planes, certificates and experience must be submitted to the CAA for their perusal before he can be employed, all his documents. They will then decide if and what examinations are required prior to flying the aircraft. Why should the shipping industry not do the same?

The continuing increasing workload caused by planned maintenance, updating more and more publications, completion of ISM requirements, safety officer duties and the latest security officer duties have been added to the ship with no increase in manning. Further, these duties always fall on the bridge officers, as if there were no other officers on board. As the extra workload increases, more extraneous work is done on watch on the bridge as, understandably, officers are reluctant to complete their watch and then go to work for hours in their cabins.

A better way?

To recap, most ships are chronically undermanned for the tasks they are required to perform.

- The manning assessments by flag state based on ship tonnage and acceptance of operators' statements of crew requirements are unreliable and unacceptable.

- The qualifications and training of many officers are deficient for their professional requirement and their designated responsibilities.

- The falsification of hours of rest documents is common and expected by many companies and ignored by agencies whose job it is to ensure their enforcement. The result is that many ships are sailing from ports with officers suffering from fatigue.

- There is no adequate support for masters who try to ensure that their ships are properly manned and that all required safety procedures are followed.

- The ports feel divorced from the issues of fatigue and have no interest in the ship's safety issues except those that interfere with the port and the speed of turn around.

- The lookout regulations are out of date and must accept that day and night require the same vigilance.

- Bridge seamen require specialised training as lookouts.

- We need a dedicated bridge team unhindered by other duties.

When trying to deal with these problems, you often come against the old excuse, flag state. If the flag state allows the ship to sail with a master a monkey and an organ grinder, it must be safe as the flag state approves. Who are we to disagree? Such an illogical rebuttal to any reasoned professional case continues as the excuse for not dealing with problems at sea. Over the years, my many colleagues working within these official bodies have expressed their concern on these matters but of course, are powerless to act.

I have often wondered why the insurance companies are so uninterested in the root causes of our problems. The only explanation I have ever been given is that the costs of the accidents are factored in. How do you factor lives? You would think that charterers would be interested, but they are not.

If, then, governments are satisfied that the flag state solves all problems; charterers and insurance companies are uninterested; unions, associations and professional bodies have no power to act – then owners and operators will continue to ignore all professional reasoning, and collisions will continue.

There has to be a better way to organise the operation of ships at sea than the present regime.