

From Boulton to Schettino

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The Navy League of Australia and The Company of Master Mariners of Australia
20 September 2012

*"I must down to the seas again to the lonely sea and the sky;
And all I ask is a tall ship and a star to steer her by;
And the wheel's kick and the wind's song and the white sails shaking;
And a grey mist on the sea's face and a grey dawn breaking"*

The haunting words of John Masefield's poem "Sea Fever", sum up for me what used to be the ever varied and challenging life of a career at sea.

So what has changed - if anything?

Anecdotal evidence and research mainly driven by the insurance and reinsurance industries, suggests that the world's weather is changing for the worse. Massive storms, gigantic waves such as might only have been seen in films like "Perfect Storm", are now regularly reported by ships at sea.

The stars which guided us when I was at sea, play little or no part in the navigation of ships now.

How well I recall standing on the bridge night after night on the long passages across the oceans of the world, watching the stars wheel across the night sky.

Anyone who has had that pleasure, no that privilege, cannot help but wonder at the meaning of life.

But now the days of "feeling the weather" on your face have almost gone, with the Bridges on most modern ships, including many passenger liners and ocean going ferries, being enclosed spaces. Air-conditioned capsules akin to the flight deck of an aeroplane, where the officer on watch sits in an ergonomically designed chair, surrounded by a phalanx of electronic equipment, upon which, he (or she) increasingly relies.

Talking to a seagoing officer the other day, he told me that some ships that he sails on have no conventional charts any more, only the electronic ones.

And that he brings his own laptop computer with him, onto which he has previously downloaded charts and navigation systems for his own use on board.

I remember meeting a second mate from the American Lykes Line in Hong Kong in the early 1960's. His business card, which I still have, said, "Have Sextant – will travel!" Perhaps the modern equivalent is "Have Laptop will travel!"

It is a legitimate question to ask what is wrong with such an approach. The problem as I see it is the Master's on-going responsibility and culpability under the law.

Should anything go wrong, the need for the evidentiary trail, whether paper or electronic is of the utmost importance.

We are seeing this right now in the search for the truth behind the grounding of the cruise liner **Costa Concordia**.

Most of us I would suggest, experience varying degrees of frustration as we strive to overtake the pressure of electronic communication before it overtakes us.

And at the end of the day, for all of the Master's inability to control the electronic medium in which he operates the vessel, the law only takes account of the function command.

When Captain Boulton was at sea and many of us were venturing onto a well defined career path, a ship was not only a commercial unit, it was also a social unit.

The training that the officers undertook then was long and rigorous with set – periods of sea time required, before further qualifications could be obtained to climb another rung on the ladder.

Not only were the officers highly qualified in terms of a theoretical education, but also in terms of practical training at sea on many different types of vessels, with varying cargoes and trade routes.

By the time command was reached, typically in the days of Captain Boulton, there would have been years of experience behind the man stepping into the Master's shoes.

Importantly, many of the shipping companies existing then not only had "company officers" but also "company men".

Such companies as British India, P&O and Ellermans to name just three, had their own pools of Indian sailors, engine room and catering staff, who sailed exclusively on the company ships.

Captain Boulton I venture to suggest, like the majority of Masters in his day, had a unique autonomy, not only so far as the navigation of his vessel was concerned, but also in its commercial and financial management.

The Master was in command in the full sense of the word and commercial interference from home office was rare.

The owners in the days of Captain Boulton, had their own marine and engineering departments, each headed by a superintendent with many years of sea-going experience, to look after the maintenance and docking of the vessels in the fleet.

It made sense from all points of view and particularly from the point of the commercial adventure, for after all this was the *raison d'être* for the fleet.

In Captain Boulton's days at sea, ships proudly flew the flags of their own countries, were crewed by their own nationals and strictly regulated by

their own country's independent authorities.

So what has changed and why?

The advent of open registries and flags of convenience, together with the tumultuous change as containerisation swept the world's sea routes like a commercial Tsunami, overturned the traditional operation of the merchant navy and its well established career path.

The so-called "Western Model" of ship owning was replaced in the rush to get aboard this new form of commercial adventure. Traditional ships and traditional forms of manning were no longer required.

A commercial realism was born, based on the "Profit" model and the need to pare to a minimum everything that could possibly detract from that goal.

Maintenance was cut, traditional registries with their oversight by experienced government authorities, regulators and independent classification societies were by passed.

And all in favour of more pliant flags, where manning scales and safety regulations were less rigorously applied and tax advantages could be maximised.

The ever increasing number of FOC (flags of convenience) vessels, brought with it an ever decreasing transparency of ownership and control of shipping, as corporate structures often spread across numerous jurisdictions, making it more and more difficult to ascertain the real beneficial ownership of the vessel.

We are seeing this presently in the arguments over which is the responsible corporate entity to meet claims involving the **Costa Concordia** – Is it Carnival Corporation the owner of the vessel based in Miami in the USA? Or is it Costa Cruises, the operator of the vessel based in Italy?

There are no prizes for guessing which jurisdiction the claimants are arguing for.

Western style crews were one of the casualties of this new commercial mentality that suddenly took over the traditional ship owners' role.

Gone were the fleet marine and engineering superintendents and their departments, gone were the annual dry dockings and careful maintenance programs, gone were the highly qualified and experienced officers – all replaced by "out sourcing" to "Specialist Management Agents" for a fee.

Why use European - style manning when cheaper options were available? Why have on-going maintenance, when "just in time" programs could be obtained on a fixed price contract?

Why use traditional crews when cheaper options were available and less generous contractual conditions could be pressed – longer tours of duty, all in wage packages to include annual leave.

The world - especially India, the Philippines, Myanmar (formerly Burma), China and the emerging Eastern Bloc countries, had vast manpower resources, all clamoring for the chance of work.

Business has always been the driving force behind shipping, but now a new type of ship owner was in charge, with the focus being commerce and the need to stay ahead of the competition.

Succession planning, if it ever came to be characterised as such in those early days, was never needed due to the plentiful supply of qualified officers and seamen, displaced from their traditional fleets and scrambling for work.

Gradually it became harder and harder for the traditionally trained Masters and Mates to find a berth as wages and conditions were driven down and many ranged far and wide seizing overseas employment, wherever they could.

This was also the start of the decline of the autonomy of command and the increasingly voracious need for the shore-based commercial managers to "run the ship remotely."

Ships only make money whilst they are at sea.

With the ever increasing size and speed of the newer vessels and their large cargo carrying capacity, the need to cut port time to a minimum, was finetuned with the increasing reliance on automation using computer operated equipment.

I have little doubt that if it was realistically possible (as opposed to technically possible), vessels would sail the ocean routes of the world unmanned.

The skills of the modern master mariner, dare I be so bold as to say it, have largely been reduced to the monitoring of increasingly sophisticated electronic equipment.

But it is fair to say, that many Masters and watch keeping officers have little idea of its limitations and its composition or how to use it to full advantage.

Ships today, both in the engine room, on the bridge and in their cargo operations, are run and controlled by highly sophisticated computers.

Masters of modern container vessels, with minimum manning, have little or no say in the loading and discharge of their vessels, as has been clearly demonstrated in the recent case of the German owned **MSC Flaminia**.

The vessel caught fire on 14 July this year on passage from Charleston to Europe, allegedly as a result of a container loaded with undeclared hazardous cargo.

Three crew members lost their lives fighting the fire and the vessel was subsequently abandoned to salvors in mid Atlantic.

Unlike the aviation industry, where the crews have a break from their environment once they reach their destination, this is not the case for the modern seafarer.

After a long sea passage, Captain Boulton's ships would be in port discharging and loading cargo for a matter of weeks. Not so today. Time in port is measured in hours, as the cargo operation is all carried out ashore and pre-planned before the arrival of the ship.

The very nature of containers allows last minute changes in stow and cut off times to be extended in the rush to meet the commercial equation, by maximising the cargo carried and minimising the time the vessel lies alongside.

Master Mariners were at first employed to do this job, but gradually the realisation filtered down that there was no need for someone with marine technical qualifications and a proven record at sea to do this.

This was a question of fitting boxes into slots – an administrative function largely computer driven – what did this have to do with ships?

In Captain Boulton's day there was a well regulated "watch" system and the Master, would seldom if ever be involved in the day to day operations, other than in an overall supervisory role, leaving the operational side of the vessel to his experienced officers.

Not now, many ships have no such experienced persons aboard and the Master, in many cases is left to "run his own race".

Not only that, but in the rush to cut the bottom line to a razor sharp profile, the commercial men pulling the strings have given no thought to social mores.

Polyglot crews from pools of seafarers drawn by the simple expedient of obtaining the most work for the cheapest price may not in fact be the best policy.

Ships are social environments and the ability for different cultures to be able to work together and live together is, I believe an irreplaceable element of the safety culture so essential today.

Everyone needs a feeling of "belonging" to function as a human being and the growing body of evidence suggests that this is no longer present in ships at sea today.

Ships are no longer a "community" as they were when Captain Boulton was at sea. They are as the House of Lords said of them during the case of the sinking of the **Derbyshire**, capable of being classified as mere "Tools of Trade."

Few seafarers today have undergone the rigorous training that Captain Boulton and his officers would have done. The same training that I underwent some years later, updated no doubt by the steady increase in technology.

It was always stressed to us that electronic aids to navigation were just that – they were aids to navigation.

They should never take the place of the basic precepts of navigation itself, whether coastal or deep sea.

It is the human interface between the operation of increasingly sophisticated electronic navigation equipment, such as ECDIS or Electronic Chart Display and Information Systems and the advent of electronic charts themselves, coupled with the comparatively short periods of training and experience that has led to misplaced reliance as we shall see shortly.

Many groundings and collisions have occurred through misplaced reliance on what should be seen as aids to navigation – albeit highly sophisticated aids.

It was always a comfort to know that there was someone with the overall experience of many years in the job to defer to as a young watch keeping officer – and there is nothing wrong with that.

But now the depth of experience can no more be taken for granted. Coupled with that is the minimal crewing on modern vessels, the tight time in port and the need to please the ever greater commercial appetite of head office - wherever that might be.

The truth is that head office is right on board, for via the ship's computer system the role of the Master has morphed into a constant need to appease the managers' and charterers' orders and provide instantaneous feedback via the computer screen on a multitude of matters – regardless of time zone considerations.

And then comes the killer – something that features in many of the shipping accidents we have seen and is increasing relentlessly – Fatigue.

Every industry it seems is strictly regulated to prevent operational fatigue and the compromising of safety standards.

But for the seafarer there is only lip service.

As Cardiff University's latest research project "Fatigue at Sea", has found the very fact of the increasing levels of automation and the complexity of the electronic navigational systems on the bridge, can actually generate fatigue of themselves.

In the preparation of this paper, I have re visited and considered many of the infamous shipping accidents. Time only permits me to mention a few, but I have tried to compare them over the intervening years.

In many, the causes have been repeated, even as modern ships have become larger and are travelling at probably double the speed of those that Captain Boulton sailed on, with electronic aids to navigation undreamed of.

When the Liberian-flagged super tanker **Torrey Canyon** hit Pollard Rock on the Seven Stones reef near Lands End on 18 March 1967, 119,000 tons

of Kuwait crude oil was spilled into the sea.

At least 4 different kinds of human error were identified as contributing to the cause, the first of which was commercial – the economic pressure to keep to schedule exerted by the management on the Master.

He was warned that unless he made the tide at Milford Haven, where the ship was to discharge its cargo at the deep water terminal, he might have to wait as long as five days before he could enter the port.

The second was the Master's decision to save time by sailing through the Scilly Isles rather than around them, even though he had no copy of the "Channel Pilot" for the area.

Go forward to 5 October 2011, when the Greek owned, Liberian registered container vessel **Rena** grounded on Astrolabe Reef on passage to Tauranga in New Zealand.

Some two hours prior to the grounding the Master was warned that he needed to make best speed possible to avoid changes in the tides, which would delay the berthing of the ship by several hours.

The master changed the passage plan to close the reef within 2 kilometres, rather than remain at the recommended passing distance of 4.8 Kilometres, but even with modern electronic aids to navigation, the decision proved fatal. The rest as they say is history and both the Master and the Navigator has been jailed as a result.

On 16 March 1978, the Liberian Flagged VLCC Tanker **Amoco Cadiz**, en route from the Persian Gulf to Rotterdam had a complete failure of its steering gear in severe weather off the Brittany coast, despite the vessel being only 3 years old.

The Master waited for some 2 hours before he called for assistance. But he needed his owners' permission from Chicago, to negotiate a "Lloyds Open Form" salvage contract with the German Tug **Pacific**, which had answered the distress call.

It took a further 4 hours to agree the salvage contract and to connect a tow line, by which time the ship was too close in to the coast and the **Pacific** was unable to turn it into the wind and sea.

As a result of the delay by the Master in making a decision and taking action, the ship grounded spilling some 227,000 tonnes of crude oil and causing massive environmental damage to the French coast.

On 8 June 2007, the Panamanian registered, Japanese owned bulk carrier **Pasha Bulker**, was driven ashore in heavy weather and grounded on Nobby's Beach at Newcastle, Australia.

The vessel had been anchored 4.6 kilometres off the coast since 23 May waiting to enter the port to load coal.

Despite 16 separate warnings of heavy and deteriorating weather the Korean Master ignored them. Of the 56 ships anchored at the time,

between 2200 on 7 June and 0700 on 8 June, 47 moved further out to sea.

But by the time the storm hit, the **Pasha Bulker** was unable to clear the coast and was caught in a classic “lee shore” situation only to be very publicly driven ashore.

It was almost a repeat of the **Syigna** – the 53,000 tonne Norwegian Bulk carrier which was driven ashore onto Stockton Beach during cyclonic conditions on 26 May 1974.

Unlike the **Syigna** however, whose rusted skeleton remains in the sand to this day, the “Pasha Bulker” was successfully re-floated.

The subsequent enquiry found, that like the **Syigna**, the Master had failed to appreciate the impact of the approaching weather.

That his initial decision to ride out the gale at anchor was flawed and that critically he should have ballasted down the ship fully, in preparation for the heavy weather before the storm struck.

On 24 January 1989, the US flagged tanker **Exxon Valdez** grounded on Bligh Reef, in Prince William Sound, Alaska, spilling some 37,000 tonnes of crude oil into a pristine environment. The causes again were human - the failure of the third Mate to bring the vessel back into the main shipping channel due to possible fatigue and his excessive work load. The master's failure to provide a proper navigation watch, possibly due to impairment from alcohol and Exxon's failure, to provide a rested and sufficient crew for the vessel.

Fatigue and human error played a major role in the grounding of the Chinese registered bulk carrier **Shen Neng 1** in the Great Barrier Reef off Gladstone on 3 April 2010.

Although only 4 tonnes of heavy fuel oil were spilled into the sea, the ship ploughed a two mile furrow of destruction through the coral, which will take decades to rejuvenate.

The enquiry found that the grounding occurred because the chief mate on watch at the time had only slept some 2.5 hours in the previous 38.5 hours, whilst supervising the loading of a cargo of coal in Gladstone.

He had failed to monitor the ship's position or to enter turning points into the ship's GPS, while taking a short cut through the reef.

In addition the enquiry found that there was insufficient training in relation to the proper use of passage plans, including electronic route plans.

Since that time this area is now part of the compulsory pilotage area in the Reef.

As the available pool of experienced Master Mariners shrinks and they reach retirement age there is an urgent need to tackle the “experience” gap.

While it may be thought that the retirement of the older generation offers untold opportunity for the younger seafarers, the fact is that they do not have the years of experience necessary to draw upon, when things go wrong and decisions have to be made.

In its recent study in August this year, the Swedish P&I Club warned against the assumption that younger officers can be promoted into the shoes of their older and highly experienced predecessors. They cannot and there is a growing realisation of the danger in promoting officers who lack the solid grounding once provided by the tried and true methods of Western – European type training.

The statistics do not lie and in a study of claims over the last 3 years the Swedish Club has found a 60% increase in hull and machinery claims, with the major cause being cited as a shortage of skilled seafarers.

A lack of knowledge, a failure to follow proper procedures as can be seen in the incidents to which I have referred earlier and the increased intensity of marine operations leading to fatigue, are others that need to be addressed.

Situational awareness would often have been enhanced, says the study, had the ship been slowed down and the electronic data properly understood and interpreted.

There is no place in marine or aviation operations for anything other than a highly professional team approach.

That this is made infinitely more complex by the widespread use of multinational manning policies, only goes to exacerbate the situation – not address it.

Commercial pressure is both relentless and insidious and with fewer days at sea as operational speeds increases and less time in port, with automated and semi- automated cargo systems, the modern seafarer is in an invidious position.

It is instructive to look behind the renaissance of the passenger cruise industry and the emphasis it places on marketing.

Cruise companies advertise everything on their vessels from on-board golf courses to grassy lawns and multi-tiered shopping malls, theatres, ritzy casinos and themed bars of every description and educational and vocational lectures, in a bid to entice passengers aboard.

A mini city – a community of thousands of disparate individuals with no common language and increasingly, many of whom are frail and elderly.

The recent grounding of the liner **Costa Concordia** – which the newspapers continue to refer to as “crashing” onto the Island of Giglio, resulted in the death of 32 passengers and crew from 8 different countries. And all under the control of one figurehead - both in fact and in law – The Master.

But we cannot blame it all on the Master.

As Mr Justice Sheen, as he was then, found in his investigation into the sinking of the **Herald of Free Enterprise**, which rolled over off Zeebrugge, on 6th March 1987, with the loss of 192 lives.

“It is necessary to shine the spotlight of forensic enquiry into the Boardroom to obtain answers.”

So now it is slowly emerging that for all his alleged bravado, élan, driving the liner recklessly, like a sea borne Ferrari, presiding over a culture that allowed drugs and womanising and his failure to navigate safely, Captain Schettino, the man at the centre of this disaster may not be alone.

The company it would appear had plenty of evidence of the prior rash and inappropriate behaviour of the Master of this flagship of the fleet.

It also, so the reports suggest, encouraged the culture of “Sail-by” and “Salutes” in the belief that such actions were “in demand” by passengers and “enriched” the product, thus helping to market its vessels and their cruises.

It reminds me of another “Sail-by” - the fatal turn to port off Cape Jackson, which led to the sinking of the Russian Liner **Mikhail Lermontov** as it left Marlborough Sound on 16 February 1986.

In conclusion in my opinion, the rapid disappearance of the highly trained and experienced ships officers epitomised perhaps by Captain Boulton, has left a void that cannot be filled.

The failure of the shipping industry to realise that electronics and automation - however advanced - are no substitutes for rigorous theoretical and practical training coupled with actual seagoing experience must be addressed. And that there needs to be a cultural shift to enable a safety culture to take root and grow.

Somewhat paradoxically, the zero level of tolerance towards ships’ officers, seems unbalanced when compared with all those CEO’s, who in a sea of greed drive their corporate vessels onto the rocks of financial oblivion, abandoning thousands of their shareholders, as they leap into the life boats with their multi - million dollar bonuses.

As passenger ships become larger, more akin to floating hotels, amusement parks and giant shopping malls than anything else, it is important to remember that they are still ships and the environment in which they operate remains hostile and unforgiving.

No world class dining venue, no exotic bar, no three - tiered glassy atrium, no professionally designed golf course, no themed swimming pool complex complete with water slides, is worth anything, if the ship is listing so heavily that it is impossible to get to the lifeboats and in any case, the Captain has already abandoned ship.

A culture of safety does not come from the Bridge, but via the Boardroom to the Bridge and that must not be compromised by commercial imperatives - however great the temptation.

Footnote

This paper was presented at the Boulton Lecture in Sydney 20th September 2012, which was a joint function of the Navy League of Australia and the Company of Master Mariners of Australia.

The Boulton Lecture was inaugurated in 1991 in honour of the founder of the Company of Master Mariners of Australia, Captain Norman Boulton MBE, VRD B.Com, M.Inst. N., AAUG.

Captain Boulton was born in England in 1904 and died in 1992. The Company was founded in 1938 and currently has a membership throughout Australia of over 600 members.

About the Author

Captain Peter Murphy is an internationally recognised maritime lawyer. He obtained his Masters Foreign-Going Certificate in London in 1970. His sea-going career spanned over 20 years and included service in general cargo, reefer, passenger liners, tankers and offshore supply vessels.

Peter qualified in law at Sydney 1984. He also holds a Master of Laws degree from the University of Sydney. He is a Fellow of the Chartered Institute of Arbitrators of London. Peter holds a Certificate of Mediation approved by the Victorian Law Institute and a Post Graduate Diploma in Corporate Governance.

With 28 years of experience as a solicitor, barrister and consultant, practising in Australia, Europe and the Middle East, Peter has extensive experience in commercial litigation and alternative dispute resolution and now runs his own law firm.

Peter was the recipient of the *Outstanding Achievement Award* for 2011 awarded by the Company of Master Mariners, for his services to shipping in Australia and overseas.