Seamanship – A Brief Summary

Being a précis of two previous presentations with a little new content…

Peter John Prately

1. Seamanship Past, Present and Future

Last year, 2010, I had the pleasure to be invited to make two presentations on the above subject. Both were mainly concerning Seamanship Past, Present and Future. They were a mix of experiences, anecdotes, adventures, training, culture, social responsibilities. As such, they were intended to cover all that which a fully competent seafarer would have at his disposal and in such a way that I tried to make the content interesting so that young people embarking upon a marine career might glean some insight into what was in store for them.

2. Definition of the Term Seamanship

How do we define Seamanship? – Well, from the Oxford English Dictionary there is: ‘the skill in managing a boat or ship’.

There is a good definition of the term “Seaman” from the American Admiral Chester Nimitz:

“To ensure safety at sea, the best that science can devise and that naval organisation can provide must be regarded only as an aid, and never as a substitute for good seamanship, self-reliance and a sense of ultimate responsibility which are the first requisites in a seaman.”

Training of seafarers has become more complicated over the past few years as higher technology has been introduced to ships.

3. Man - Machine Interface

Computers can be found in almost every piece of electrical apparatus on board a ship – same as ashore, I would think. At sea, computers are used in communications and navigational equipment, and they have greatly enhanced that equipment.

They are used extensively in all parts of the ship: Safety sensors, monitors for machinery, power plant controls, stability and stress calculations, refrigeration of cargoes, budget control, catering, storing and updating spares, to name some of the more well-known uses. In cruise ships their use is perhaps saturation in favour of passengers’ facilities.

Computers play a very large and mostly hidden role inside the high-tech equipment now found on board a ship. The end user, however, still requires basic computer skills as a user at least, if not as an adapter. Lamentably, such skills are rarely taught and the ship personnel frequently rely on others on board to teach them or, hurriedly, by reading through and referring to an “idiot sheet” which gives the very basic uses of the apparatus.

In this way, the user will have very limited knowledge of the equipment. The adage that ‘a little knowledge is dangerous’ can sum up the weakness in
this method of instruction. Proper training is vital to ship personnel if they are to benefit from new and often useful high-tech equipment.

Equipment makers, in their competitive race to be better and more efficient, will add many unwanted extras to items, such that there are too many choices to carry out the same job. What the user needs is ease of use for effective and good results.

Likewise, basic maintenance and checks should be easy to understand and to carry out. Designers know what they themselves want – the results must, however, benefit the end-user.

4. Safe Manning

With Minimum Safe Manning which is, in effect, Minimum Manning, the few personnel on board today's modern ship have a heavy workload and safety responsibility, both to themselves and to other, third parties.

With such an onerous and heavy workload it is little wonder that owners and managers have difficulty in obtaining and then retaining qualified seafarers to man their ships.

There is a relatively new catch phrase that describes the way work is done. It is called Human Resources. Directly related is another newly coined phrase, the Human Element.

In fact, anything that is done by humans on this planet is by human resources. Always has been, always will be. There is nothing new about it. What is new is the employers’ desire to use those resources to better ends. That makes good sense – efficiency of an operation is to be desired by all concerned. Attaining that efficiency is the difficult part. It takes good planning; an appreciation of possible setbacks; costing; satisfaction of the work force (social responsibility); and no damage, no customer complaints. A good reputation is oft hard earned but can be destroyed at lightning speed.

5. Human Resources

At sea, Human Resources are not only the crew on board ship but also the shore side operators and other players who assist the vessel in loading, transit and discharge.

To do all of these, the personnel must be properly educated and trained to certain standards.

The latest (Manila, 2010) amendments to the STCW code, due to be enforced from January 2012, do enhance the training procedures, amongst other matters, so only the future will prove how effective these new amendments become in reality.

In the 1960's and 70's, ocean-going ships were smaller and slower than those of the present day and containers were very sparsely used. Port stays were considerably longer which meant that more alongside maintenance could be done and ships were in generally better condition than many afloat these days. Longer port stays also meant a happier crew who could step ashore and find the feel of the land under their feet.

Bigger crews meant that more work was done in regular hours, i.e. there was less overtime, paid or not. When I served on the GC Liner “Pando Gulf”, of P&O, we had ninety-nine (yes, 99!) crew on board. There was room for a few more but if the figure reached one hundred then a medical doctor had to be employed on board.

Rest hours did not enter into any equation about working hours as the norm was an 8-hour working day for non-watchkeepers. With the present decrease in crew numbers, ostensibly replaced by more automation, the hours of work and rest are, under STCW, laid-down and records of the same are made. Current regulation calls for 70 hours of rest per week, equating to the average of ten hours per 24-hour period, with a minimum continuous rest of six hours. On paper, it is adequate.

In practice, however, most ships cannot run under such strictures and the hours’ records are very commonly flogged (falsified). With a lot of owners, the alternative is to replace the crewman who deigns not to work more than he is contracted to do.
The trend towards cheaper crew means that owners and managers are able to employ more people (lifeboat capacity permitting; not necessarily cabin space, though · · ·) but even with more ship-staff the hours sheets are still not always correct.

These working/rest hours records are on display for any Port State Control Inspector to view and the ship can be fined and/or detained when the records are found to be inaccurate – it happens frequently.

Under the STCW Manila Amendments, rest hours are increased to 77 hrs per week – an additional one hour per day. They will come into force January 1st., 2012.

The Manila amendments have also determined to continue the battle against fraudulent CoC’s plus there is new and improved training to more ranks and, most notably, proper training in the use of new high-tech equipment. In that respect one can say “about time, too” but it is not too late and this amendment is very welcome indeed. Like any other part of a seafarer’s qualifications, it should further be a continuing process so that as new equipment is introduced and its use becomes standard, training should be updated. One can only hope that this will indeed be the case.

To date, training in general has only improved for those fortunate to have the facilities (colleges, schools, distance learning by internet) and the wherewithal to embark upon them. With a high percentage of world seafarers hailing from the poorer countries, those individuals do not always receive any higher education until they are physically on board a ship, as a licensed crew member. That anomaly will not improve until there is a big shift in the way employers pay their workers. For example, a qualified and competent officer can receive a good salary for his/her services but in practice, that depends on the employee’s nationality and country of residence. There should be no dependence on such. Rather, the employee should be paid according to qualifications, experience and ability.

To get the best out of the human resources within one’s employ the rewards have to be fair. This is not only about the wages and the secure transfer of funds to the families. Just rewards include the conditions on the ship, the facilities offered, the social life both on board and in ports. Good communications with family and friends, especially by internet mail and by telephone, are equally important. Many seamen are away from home on standard 9-month contracts and of those, some are persuaded to stay on for longer tours.

A seaman who has already been on board for over seven months is starting to become less useful. By nine months the person is more than ready to get off and to then have to stay on is, well, irresponsible. For myself, I would rather sail short-handed, and have done so, than keep a seaman on board for longer than his contracted tour.

These days we are seeing more females at sea, in all departments. This is very welcome, both for existing staff and for the new entrants. From experience, I would state that much of seafaring is common sense and that is what is definitely needed when welcoming female seafarers. Common sense and common, good manners.

6. Training – (A)

The world has changed in all ways since 1963 which is the year I first went to sea. (Even the term STCW had not been coined.)
The previous year, 1961/1962, had been spent at pre-sea training college (Warsash School of Navigation, Solent University). There, we learned discipline, practical seamanship and navigation. All was carried out in the boat-house, in the classroom, on board cutters and dinghies and by sailing on, and by maintaining, the Bermuda-rigged T/V ketch “Halcyon”.

The sail-training was, and still is, especially important as it teaches comradeship, loyalty, leadership, self-reliance and many skills not found in other walks of life.

It was such good and recognised training that it exempted me, and the other cadets, from nine months’ sea-time, i.e. my Apprenticeship was shortened and I was able to sit my 2nd Mate’s CoC 9 months earlier.

Going away to sea is not for the faint of heart. Not then and not now.

It is a great adventure and the first time the land disappears under the horizon, leaving the ship and her crew out of sight of land, can be something of a shock to the uninitiated.

This is when good management skills will teach the newcomers their first skills, such as how to battle ‘mal de mer’ (sea-sickness) and how to continue when feeling lonely and homesick.

Every day on a sea-going ship would bring a new experience and the chance to add to the individual’s knowledge. Such tasks as caulking a wooden deck or splicing a wire cargo runner; use of a serving mallet; cleaning hold bilges and testing the non-returns; stitching canvas for hatch-covers; rigging the Kelvin deep-water sounding apparatus, then obtaining a position line by depths (line of soundings); using the hand lead and arming it with wax to obtain bottom information.

Caring for the LSA, especially the life-boats, some of which had Fleming Gear for hand propulsion. Checking and testing the FFE, including the use of the old smoke-helmet and bellows. Maintaining the Jolly Boat and taking it out for runs ashore. Looking after the bunting and flags; making up new flag halyards. Overhauling wooden tackle blocks and cleaning and lubricating cargo shackles. Marking the anchor chains and cleaning out the chain lockers. Making bell-ropes and other fancy rope-work. Gaining more knowledge of the knots and using them.

Carrying out cargo watches in the holds. Carrying out anchor watches. Learning the basics of mechanical engineering under the Engineer Officers. Helping and learning from the Electrician. Using and understanding the various types of deck machinery.

Gathering weather observations and then preparing coded messages for the “Sparks” to send by Morse code to coastal meteorology stations.

Learning seamanship comprises doing myriad jobs and duties, all of which bring a sound knowledge base for a continuing career at sea. For both sexes.

The above selection is but a tiny sample of what comprised seamanship training and what should also be part and parcel of seamanship training today, for men and for women.

7. Training – (B)

This hands-on practical training was not limited to Deck and Engine jobs. Indeed, it was all interspersed with bridge work, logistics operations, radio room works; and study for the MNTB (Merchant Navy Training Board – UK) annual exams.

My initial work on bridge watches was learning to be a lookout. The one radar (Marconi Mark 12) was rarely
used and then only under supervision of the OOW and with the Master's permission.

Lookout duties were done from the bridge wing and by naked eye – the binoculars were, if I recall correctly, privately owned by the OOW's; as were the sextants! Therefore, a good appreciation of the points was essential: dead ahead, 2 points to starboard, 3 points abaft the port beam etc. That gave the watch officer instant and accurate information. In recent years I have had to teach the crew how to keep a proper lookout as most will come on board with scant knowledge of this, yet it is the most important duty on board any ship.

Apart from lookout duties, I was also taught how to steer and once again, that is a duty that I teach all crew on any ship. When they are competent in all forms of steering a legal Steering Certificate is issued. My wife has a Steering Certificate – she was taught as well!

For an O/S (Ordinary Seaman) this is useful for promotion to AB when a vacancy occurs. With the general shortage of crew it is handy that all on board can steer, if needed. In really busy times when the man-power is otherwise engaged, I have had the C/Engineer on the bridge looking after the engine telegraph, the electrician keeping the lookout and the steward steering the ship!

For arrival and departure stand-by's the apprentice (myself or the other one) was on the bridge to take care of the Bridge Movement book (the Bell Book), hoist the flags or other signals, take the wheel or stand the lookout if it was his duty watch. Plus, running any errands that came along. All the while, one learnt what was happening – more experience.

We assisted the 3rd Mate with his corrections of the Admiralty publications.

Similarly, we helped the 2nd Mate with his chart and other corrections. Both of these duties taught us about navigation, charts and publications, NTM's (Notices to Mariners) and their uses.

From early on we were given practice in taking solar and stellar sextant sights as well as bearings for coastal navigation and compass errors. Navigation was solely by sextant and compass. For calculations, Burton's or Norie's tables were used, along with the Nautical Almanac. Chart work was by Captain Fields' Parallel Rules and a pair each of compasses and dividers.

Weather observations were taken every six hours (apart from those entered in the Log book) and coded for the Sparks to send by radio, utilising Morse code. Coded weather forecasts and warnings were sent to the ship, for deciphering on board.

It was all highly interesting and satisfying work. Taking a sight in the morning for a position line; or calculating longitude by chronometer - and running it up to cross with the noon meridian altitude was standard. The 2nd mate on the 12-4 would then take another sight around 1500hrs., depending on the bearing and altitude, and cross it with the noon fix, thus keeping a good check on the position plus getting a quick speed check. Morning and evening twilight was the time for the Mate to take stars. The moon and the planets were also used, the moon often in broad daylight.

To take a sight on board a ship for real and in so doing to use the knowledge I had gained at sea school – well, that was really something!

It was far more rewarding than reading the fix from a GPS.

Yet today there are few bridge watch officers who can survive without GPS. And, entering the position manually into one of the two or even three radars is unheard of!

Admittedly, DGPS and its predecessors such as GPS, LORAN, Sat-Nav., Decca Navigator, are all great advances and virtually inescapable in a present-day, busy wheelhouse where the OOW is surrounded by a proliferation of different kinds of equipment, all of which are supposed to aid and assist.

In fact, we take it for granted these days that just about every item of navigational or radio equipment
has the ship's position continuously updated and indicated. The sextant has gone the way of the astrolabe and doubtless the magnetic compass will be the next casualty.

Getting to know one's way around the ship was paramount, as was knowing what the rank marks or badges were. Wearing the correct clothing for the various jobs, keeping oneself and one's quarters clean and tidy, looking after the surroundings at sea and in port – all good housekeeping and all firmly ingrained in short order.

The Chief Officer (and 2nd Engineer) kept a work book of daily jobs. This was useful for checking the time taken for a job so that the same work could be more effectively planned when repeated. It also let the mate know how much paint or other materials he would need in the stores as anything used was noted.

Into the mate's work book also went salient information about the cargo carried, its ventilation where applicable and anything untoward about cargo, such as securing, general care and bilge water soundings and volumes – with some bulk cargoes where the cargo weight was ascertained by draft survey, the moisture lost in the bilges was recoverable as 'cargo'.

We were taught and experienced 'ship's business' and were given to make log abstracts for Notes of Protest. Such paper-works as port entry forms and crewlists etc. were done by the Chief Steward or, on some ships, by the "writer", an individual employed solely for paper-work. That included the NOR's, and making the fair copy cargo plans, port and transit manifests and the exception lists. Bills of lading were also completed on board as the type of cargo dictated.

All form-filling and official papers required for inward and outward clearance was taught to we apprentices and it is training that has stood me in good stead ever since for there is no escaping the paper-work!

Computers are supposed to create the paperless office but because it is thought that a computer will make life easier, the volume and types of paper forms has increased like a train with no brakes! It's unstoppable.

As an apprentice I was not only on watches but also frequently working the daylight hours off watch. Thus a 12-hour working day was the norm. I do not recall it doing me any harm but I do know that I experienced and learned so much during my apprenticeship.

8. Going to Sea

Going to sea is not an easy choice of career but it can be satisfying, enjoyable and well rewarded.

On the flip side, shipping is ranked as one of the ten most dangerous jobs!
9. Marine Environment

Initially, going to sea was a way to broaden, literally, one's horizons. Travel to other countries and cultures has always been a big lure, in any era. Explorers and adventurers felt that lure. And if you are a lover of Nature then the sea has the ideal environment to learn more.

One must learn about and maintain respect for the sea and for its wayward designs.

Foolish is the one who feels the oceans to be a gentle and habitable locale. Like any region on earth or water, the sea can be vicious and unforgiving.

Disasters at sea, and because of the sea, are numerous.

One of the most famous (peacetime) disasters was that of the great and "unsinkable" liner RMS "Titanic" four days into her maiden voyage. This happening actually aided subsequent ships in that the life-saving apparatus (LSA) was improved directly because of the huge loss of life and the scarcity of life-boats on board. The Titanic sank in 1912 and in 1914 the first International Convention for the Safety of Life at Sea (SOLAS) was introduced. SOLAS is an international maritime safety treaty.

The very recent catastrophe on Japan's Northeast 'Touhoku' Coast which was hit by a tsunami generated by an undersea earthquake 45 miles off the coast, demonstrates the enormous power of the sea.

We have to wonder at the maliciousness of Nature that such an awe-inspiring, destructive force could be thrown at any land.

Naively, we might feel that Nature is hitting back at the way humans have mistreated the seas over the centuries. For sure, the oceans and all bodies of water, salt and fresh, have been polluted by human actions. Only over the past few decades, since 1972, has any action been taken to cure the present status and to prevent further pollution.

Detritus from civilisations made little comparative impact on the quality of water until the Industrial Revolution in the 18th century. Thenceforward, all kinds of dangerous waste materials, chemicals and plastics have found their ways into the streams, rivers, lakes and into the oceans. The Sea was thought to be too vast an area to be adversely affected and it was not until the early 1960's that any serious research was put into studying the effects of waste deposited in the sea.

Around that time there were several controversies about the dumping of atomic waste into the U.S. Atlantic coast, the UK's Irish Sea and the Mediterranean Sea.

With destructive marine disasters (the 1967 grounding of the oil tanker Torrey Canyon in the Scilly Islands; the 1969 Santa Barbara Channel oil spill from an oil platform 6 miles off the California coast) which caught the world's attention through higher media coverage, great public outrages demanded that something be done to prevent future catastrophes.


It is a fact that About 12% of Global pollution is caused by marine transport and most of it is unintentional, for example from marine accidents and accidentals spills.

75 – 80% of Marine Pollution is caused by land operations. Most of them are intentional.

There are strictly enforced laws for ships to follow in order to prevent pollution. Seamen are very conscientious about keeping to the rules and keeping the oceans and harbours clean and free of waste.

10. Why Go to Sea?

When you go to sea for your career, you must take with you the good sense to continue to be a non-polluter. Enjoy the clean seas each of us desires. Help the climate!

Let me not, however, put anyone off a career at sea. Being at sea is not all disasters and catastrophes. Not all Piracy and violence. Most of the time, life is fairly mundane but romantic, interesting and satisfying.

Being at sea, one must learn to take the bad with the good. By experience, it has been mostly good but like any career, there are some exciting moments and, believe you me, too much excitement is the last thing you want at sea. A famous and well established Japanese shipping company has in its monthly bulletin to sea staff the motto "May all voyages be boring". I understand that they wish to convey the message of
safety and no mishaps to their ships but in no way could I subscribe to asking for boredom. Continual ennui will deaden the brain.

A little excitement is always needed, such as interesting events like spotting a pod of whales or some unusual bird. Assisting in a rescue or helping a sick person. Organising a party, raffle, indoor and outdoor games and other pastimes such as quizzes, brain and body exercises – all help to relieve the spare time at sea. That time is also used for study periods but – ‘all work and no play make Jack a dull boy’ is an old, and true, saying.

Visiting different ports never fails to excite. Meeting new peoples and learning their ways will always induce some satisfaction and even start off new friendships. When I was 3rd mate it was my job in port to arrange the parties! Mostly in home or Commonwealth countries, the 3rd mate’s duty was to get to the nearest phone and call the local Teachers’ Training or Nurses’ Training schools to find likely guests. On one ship, using old phones via the operator, I had luck with neither nurses nor trainee teachers so then the telephone operator piped up with “We can come!”

So, an excellent party was held on board with the phone operator ladies.

It takes hard work to make a happy ship but the rewards are more than worth it - good comradeship with sensitive and fair but firm management will enhance life on board any ship.

Human resources – you and me: all are involved in shipping and all, whether on the ship or ashore, have a vested interest in aiming for a smooth and profitable, environmentally friendly operation.

Thank you.
Peter J. Pratley, Master Mariner