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(Citation)

Journal of maritime researches, 2(1):1-9

(Issue Date)

2012-03

(Resource Type)

departmental bulletin paper

(Version)

Version of Record

(JaLCD0I)

<https://doi.org/10.24546/81004319>

(URL)

<https://hdl.handle.net/20.500.14094/81004319>



SEAMANSHIP – A BRIEF SUMMARY

What it is and how it is changing

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ABSTRACT

During the last two years I had the pleasure to be invited to make two presentations on the above subject of Seamanship. Both introduced Seamanship in the past, in the present and in the future, the last being thoughts and ideas about where Seamanship was heading. The content was a mix of experiences, anecdotes, adventures, training, culture, social responsibilities. As such, these presentations were intended to cover much of that which a fully competent seafarer would have at his disposal and in such a way 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. This paper is not a Research paper but one that investigates the meaning of Seamanship and the Seaman. It is directed at the uninitiated person who aspires to become an aficionado of Seamanship and a competent ship's Deck Officer. It will likely stir some nostalgic memories in the mind of the experienced seafarer.

The views expressed in this paper are those of the author and may not be the same as those of this Journal of Maritime Research

Keywords: maritime, vessel, competence, respect, experience.

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1. DEFINITION OF THE TERM SEAMANSHIP

The Oxford English Dictionary (O.E.D.) defines Seamanship as the skill in managing a boat or a ship. Inherent in the term ‘managing’ is the concept of safety. This skill covers navigation, maintenance and operations.

Contrary to popular belief, Seamanship is not just about rope-work or splicing a wire or stitching canvas, or even running a ship’s boat. Seamanship covers everything there is to know and do and care for on a ship.

The ship’s Bosun is a seaman and so is the ship’s Captain. All that separates them is training, qualifications and disciplines. (Oh yes, and pay, too.) It should be remembered that all learning on a ship, and about a ship, is a part of Seamanship, and the same goes for Marine Engineer Officers, Electro-technical Officers, Petty Officers and Ratings. All are Seamen and all practice Seamanship.

Noted nautical author Graham Danton gives us another definition of seamanship with which we can readily appreciate the full meaning:

“In a maritime situation, doing the right thing, at the right time, with whatever materials and equipment are available. The good seaman, whether an officer or a rating, is one who can be trusted by his seniors to take immediate steps to try to bring every potentially dangerous situation under control” (Danton, 1996 pp xiii).

The latter definition tells the reader what is of paramount importance to a seaman: competence definitely, coupled with sound, common sense. This innate sense is called “common”, as in a kind of instinct, but common sense is something that increases and is enhanced with many experiences, both good and bad. Some say that we learn from our errors but it’s also true that we prefer to learn from others’ errors... There cannot be any readers who would want to be in the shoes of the Captain of the cruise ship “Costa Concordia” but all will be interested in learning something new from that tragedy.

2. WHY GO TO SEA?

What makes people want to go to sea as a career? Is it following in one’s father’s (or, less rare these days, mother’s) footsteps?

Or, maybe the call of the sea and the enticement of finding out what lies over the horizon. To be sure, that answer is more readily ascertainable by airplane in these days of modern travel. But then, an adventurous spirit can still find something special about journeying out of sight of land for many days or weeks on the vast and lonely oceans before making the first landfall. Lone yachtsmen and women do so, albeit with their own, very personal sense of adventure.

In years gone by there was the “lure of the tropics”, with day-dreams of calm, milky blue waters alive with strange and beautiful creatures. Islands with beaches of fine, white sand stretching endlessly, and only the occasional palm tree swaying to the balmy breezes.

Just like on the brochures...

That's become a dream shattered – it's now more a "Fear of the Tropics", what with the scourge of piracy that has grown so prevalent in those once far flung and romantic places. And, you won't find modern piracy depicted on any brochures.

For yet others, as I have learned from interviewing Maritime Science students who aspire to become Captains or Chief Engineers, there is the desire for the respect that is thought to be accorded to ship's officers. Well, respect in any walk of life comes from one's achievements and character. It is a quality that is built and nurtured: hardly got, yet easily destroyed. But yes – Merchant Naval Officers are generally treated with respect and have been for some centuries past. That respect has not always been one of admiration and plaudits. There have been officers both good and bad, with the latter instilling respect from fear rather than praise; from disgust rather than approval.

For still others who want to go to sea, there is the genuine love of the sea as a special environment. Where else can you be one with nature, and in a pure, natural environment, whilst gainfully employed at the same time? The first time a seafarer boards a ship and puts to sea he or she can feel the sea itself through the movements of the vessel; can feel the fresh, and oft strong, breeze in the face and taste the salt. Or lie on the deck at night and watch the stars. To be able to enjoy such gifts is something really special. After you have leant on the bridge dodger and truly felt that air blowing past, just talking about it will never suffice.

At times there might be phosphorescence thrown up by the ship cleaving her way through the waters, and on a dark night the whole sea can be lit up with a sheen of green-blue. This is one of nature's wonders – light-emitting plankton. Other creatures that please us are dolphins, especially when they swim alongside the ship, or at the bow. They seem to like it. The watcher can look over the bow and see large schools of dolphin, sometimes up to fifteen or twenty, swimming with the ship for a few hours at a time.

Sharks and whales are also prevalent on or near the surface and all, along with the different birds flying overhead or just taking a rest and getting a lift on board the ship, imbue the seamen with the sense of a "bit of company".

Of course, if we want to maintain such as these then we have to look after the sea.

3. ENVIRONMENT ISSUES AT SEA

Keeping our seas and oceans clean for humans and marine life to co-exist is of paramount importance.

Historically, the human race has not been a conscientious keeper of clean seas but laws are now provided to re-educate people. Such legislation should not be necessary but unfortunately it is. Worldwide media coverage lets most people learn about the terrible damages that ships and marine structures can do to the oceans. Headlines scream accusations and desires for retribution. Never mind the facts and circumstances

of the matter, the media loves and thrives on disasters.

Well, punishment of wrong-doers where it is warranted will do some good, but let's not forget the praise - most ships do not pollute, do not willfully dump rubbish or oil overboard, do not discharge untreated sewage, do not throw plastics into the sea, do not pass harmful fumes into the atmosphere. Common sense and good seamanship ensure that we at sea look after our environment.

One cannot say the same about shore-based operations although many of the regulations are common.

It is a fact that around 12% of global pollution is caused by marine transport and that most of it is unintentional, for example from marine accidents, from accidental discharge of ballast waters, from inadvertent oil spills.

(Note - Ballast water is also a pollutant, introducing alien marine organisms to new environments.)

However, 75 ~ 80% of Marine Pollution is caused by land operations and - most of them are intentional. There are strictly enforced laws for ships to follow in order to prevent pollution. Seamen are conscientious about keeping to those rules and about keeping the oceans and harbours clean and free of waste.

4. LEARNING THE TRADE

The regular route to becoming a ship's deck officer normally starts at a pre-sea academy where students learn the basics of navigation, boat-work, knots and bends, ship knowledge, signaling, meteorology and so forth. Some leadership comes into the basic curriculum but more as "head prefect" than as an officer on a sea-going vessel. On the first ship, that same "head prefect" learns fairly smartly that he or she is the lowest form of life on board. Such lessons as this will instill in the student (or cadet, as they are now generally termed) the ability to interact with others whilst maintaining personal morale. How the cadet responds will be a lesson in character-building and respect.

The apprenticeship lasts three years (four years if the cadet did not attend a pre-sea college) and there are certain criteria for the durations of sea-time and college time. At age twenty the cadet can, subject to the above, be ready and sit for OOW's CoC (Officer of the Watch, Certificate of Competency) exams, both written and oral. Different countries do things differently but all CoC's have to adhere to the IMO STCW and its amendments. Many countries run their own Cadet Training Ships, both motor and sailing. Sail-training has to be one of the best methods still around that teach teamwork, resourcefulness and trust.

The curriculum on the road to OOW CoC has become very extensive over the years. New technology, especially that referred to as e-Navigation, has rendered the learning process, both practical and theoretical, more complex. Hands-on knowledge is what the OOW needs in order to keep a safe and efficient watch; theory of the operation explains its aims and how it works. In effect, the former is what is required to

operate the equipment; the latter is what should prepare the user to be able to handle any similar apparatus, on any vessel.

5. MAN – MACHINE INTERFACE

5.1 The Law

The carriage of ECDIS (Electronic Chart Display and Information System) became mandatory January 1st. 2011 and comes into force for Passenger ships and Tankers (tonnage related) from January 1st. 2012. The dates for other vessel types are staggered, with all having to carry and use ECDIS by January 1st. 2018, with the exception of non-tank cargo vessels under 10,000 GT for which there is no mandatory requirement at present.

For e-Navigation, and ECDIS in particular, there are also mandatory training courses for operators. That is a very welcome mandate. It means that new entrants will already have user-experience and be qualified operators; and that current personnel will be properly and thoroughly trained, preferably under the sponsorship of their employers. Making the latter mandatory would be a real forward-thinking move by the IMO.

5.2 Equipment criteria

In the respect of e-Navigation equipment, manufacturers also need to be educated in order to cater to user requirements. (Studies undertaken by Human Element and Human Resource advocates illustrate a similar initiative when a ship is first conceived and built – the planners need to talk to the users before a layout or type is confirmed.)

Much like previous technological advances such as GMDSS, GPS/DGPS, AIS or, many more years before, the advent of Radar, the equipment is not necessarily made for ease of use.

Generally speaking, it is designed and produced to meet the required purpose. Nor do users' instruction manuals, those weighty volumes, all prove helpful. In reality, the colour-coded and laminated "idiot-sheet" is most used, the tomes being reserved for quieter periods of study and practice when away from main shipping lanes.

5.3 Equipment and Ergonomics - or Not

Equipment makers, in competing for supply contracts, tend to offer many unwanted extras to apparatus, such that there are frequently too many choices to carry out the same job. At sea, what the user needs is ease of use for reliable, quick and efficient results. Fancy extras are not selling points to an experienced, practical-minded seaman. It's like a language – simple and comprehensible is best.

Designers know what they themselves want – the results must, however, benefit the end-user. Yet, in some of the wording on promotion brochures, makers will propose the "perfect, ergonomically designed equipment for your ship's bridge". Well, ergonomics means the study of people's efficiency in their working environment. "Ergonomics" is also a good, hard and eye-catching word and as such it makes for

good copy.

How many makers' representatives have we physically seen asking prospective users what they really need and what they absolutely do not need?

To the average seaman, "efficiency" means getting the job done with the minimum of wasted time, effort and expense. Equipment that offers too many options to achieve the same result certainly wastes time and effort. Further, with all mechanical and electronic equipment, apart from ease of use and then much of that with an intuitive element, basic checks and maintenance need to be easy to understand and to carry out. The user has to be both competent and confident in his or her abilities.

5.4 Maintenance and Upgrades

A recent issue of the Nautical Institute's magazine *Seaways*, in an article discussing ECDIS and, where relevant, its use of ENC's (Electronic Navigation Charts), states that the "International Hydrographic Organisation (IHO), after identifying no less than 19 key anomalies in the way that ECDIS displays data, has seen the very relevant need for data checks to be carried out by users." It is electronic and is controlled by computer software. Like any computer programme, software needs upgrades. The feedback from ships will "enable the IHO to identify how the different brands of ECDIS display and handle chart data, and will allow IHO Offices, ECDIS manufacturers and others to take any corrective action that may be necessary."

Reiterating in part above – as with any electronic computer programme, they are also liable to total failure. (We have all experienced the strong desire to give "technical lemons" the float test but a slow count to ten has often as not stayed the hand.)

(Note - IMO has the contingency of a back-up system for such a calamity but that is not within the scope of this paper)

For regular errors (such as by user input) and warning signals for differing situations there are audible and visual attention-getters, similar to those emitted by ARPA radars and other sensitive, vital equipment. As there is already the problem of indicator and alarm overload on the ship's bridge (and in the Engine Control room), it is likely that many warning indicators will be rendered silent by the operator. Such practices should be addressed in the (revised) SMS.

5.5 ECDIS Brief Summary

There can be no doubt that ECDIS and other methods of e-Navigation are here to stay. ECDIS accepts ship position information from GPS and GPS-loaded equipment such as Radar, or AIS, and the position can be continuously updated. Further, manual fixes can be input, e.g. ascertained from radar ranges; from visual bearings of landmarks, if any users still understand how to do that; or determined by fixes from stellar and solar observations, although the latter methodology is perhaps alien to younger navigators.

Apart from the continuous position plotting, it should be remembered that the "IS" in the acronym stands for 'Information System'. Thus, a complete Passage Plan can be worked through the ECDIS and its information, input according to user needs,

be displayed throughout that passage. With so much to gain and so much to learn, it will be interesting to see how this new element of Seamanship is taught and, eventually, thoroughly accepted for its myriad benefits. Only with good training and continual practice will the user become comfortable with all that ECDIS has to offer.

6. How Seamanship Has Changed

6. 1 Life at Sea on Board a Ship

In the past a life at sea has been rewarded with adequate remuneration and conditions, those fundamentals integral to every employee, from whatever walk of life. Such matters are even more vital in the current, difficult economic environment in which many find themselves. Working at sea will be rewarding for those with the mentality to enter an environment that is very different to the one in which they have been brought up.

It is certainly not for everyone. Leaving family and friends to embark on a ship of strangers, to carry assorted cargoes from country to country, to perhaps never step ashore on firm land for months at a time – this is not the career for the faint of heart. It wasn't yesterday and it's still not today.

6. 2 Nature's Offering

Navigating a ship through heavy seas where the decks are continuously wet from spray, the windows clouded by salt; watching sea-waves and swells literally towering above one's head; taking green seas on deck and feeling the ship shudder from bow to stern as she pitches and pounds into head seas. These weather phenomena can be violent and destructive but we know the ship and how to handle her; we know we can trust her. And if we missed the visible signs of oncoming bad weather, and did nothing to avoid it or prepare for it? Well, today there are numerous modes of transmission of weather forecasting and warning messages at our disposal. That is not to say that no storm will bother a ship again. Weather patterns are changing and severe storms are becoming not only more so but they occur with less warning. Forecasts are one thing; correctly acting on the information is another.

In fact, after periods of fine weather in calm seas it is not a bad thing to experience a storm, not only to perceive it and wonder at it but to shake people up and out of any lackluster attitude that may have permeated the brain. Every kind of weather will make the seafarer more aware of the environment, in all its forms. That knowledge will prepare one for what other surprises Nature can, and certainly will, produce.

It will also teach the usefulness of constructing a hammock and slinging it inside the cabin – getting a little sleep in the oft harsh conditions, when rolling and pitching, can be difficult at sea.

The 'plain sailing' is always welcome, though, and especially after a storm. Initially, there will be less noise pollution. That is a form of pollution that is invasive and increasing as ships become more infested with electronic systems, to say nothing

of the many different kinds of construction materials which permeate a ship and her living spaces. In bad weather the seafarer finds it hard to escape the rattles and bangs which follow every movement of the ship. Some are caused by on board human carelessness, others by poor planning and fittings, of which many can be avoided or reduced at the design stage of the ship.

But lest the new seafarer is discouraged from these words, by experience I have found that many ships today are well found and of good design. Of the ones that are not? – The seafarers themselves put things to right or – just put up with them. Even Mother Nature is for the most part kind and what's a few days of rough seas, snow, ice, fog, rain to beat the days of calm seas and sunshine; starry nights and balmy breezes?

Just take the bad with the good. Load, carry and discharge the cargoes as safely and as efficiently as possible. That has always been the tenet and always should be.

6.3 Conditions

Tours are short, rarely more than four months, and home-leave is of the same duration – four months' paid leave is a very good incentive to retain employees. Working hours are fairly regular, hours of rest are stipulated by law and, supposedly, adhered to. Working practices are safer and many jobs are assessed for any risks before being carried out.

Not everybody wants to be part of such a close community as is found on a ship, even if present-day accommodation means that some on board have their own living quarters. Today, the sharing of cabin space and baths/showers/rest-rooms should no longer occur. Lamentably, the practice is not uncommon and even newly built vessels lack much in decent accommodation spaces wherein personnel can enjoy a little privacy. If owners and the trade in general want to attract and retain personnel then conditions on board have to be a lot better.

Shore-leave during a tour is becoming shorter because ships now have a much faster turn-around in ports. It is not unusual for a port stay to be measured in hours, rather than the days or, at times, weeks that a vessel used to lay alongside a berth. With tighter security there are ports where the ship's staff are actively discouraged, or even banned, from going ashore.

Hence, these days the lure of travel to other shores is hardly a reason to go to sea. Unless one can be satisfied with stepping onto a strange land, even just to read the ship's draft...

Today's seaman has to contend with many difficulties apart from the primary task of navigating a vessel across seas and oceans that can be wayward, sudden and unforgiving in their nature.

Battling the elements is part and parcel of a seaman's life, to be overcome and even enjoyed. The contrariness of a life at sea is, today more than ever, human-made.

Is this the other side of the coin denominated "Human Element"?

7. CONCLUSIONS

Whatever one's reasons to choose Seamanship / seafaring as a career, all should know that life at sea is productive and satisfying. What you get out of it very much depends on what you put into it. Be yourself.

Respect for the sea and respect for those around you – these are the qualities that will stand you in good stead.



Figure 1 One more good reason to go to sea.
(South Atlantic Ocean, aft deck verandah, evening)

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