



To promote, develop and support in the spirit of cooperation, the common interests of its members in all matters concerning the development and quality of maritime education and training.

# NEWSLETTER

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## TRAIN, TRAIN, RETRAIN, RETAIN!



### Inside this Issue

Editorial .....	2
EMSA and MET in the Philippines.....	3
Prof Malek Pourzanjani Appointed to GlobalMET Advisory Council.....	3
The Absorbents.....	4
A Study on Merchant Marine World Fleet Scenario.....	5
Ships Energy Efficiency Management Plan e-Learning Course .....	7
SEA Poster Project.....	10
Excellence in Maritime Training Recognised...	11





# Editorial

As one fortunate to have enjoyed an affinity with the sea and who was aboard ships on long voyages as passenger and seafarer from the age of fifteen, passing close to Horsburgh lighthouse at the eastern entrance to Singapore Strait late last month left a deep impression. Marking the dangerous Pedra Branca reefs in an area where over 70,000 ships converge and pass each year, the lighthouse has been one of most significant navigational aids and has contributed to the safe passage of millions of ships.

Built at considerable effort and cost by the Singapore authorities in 1850-51, the light tower is now accompanied by a steel tower half as high again as the lighthouse, together with heavy concrete buildings, as shown in the accompanying photograph taken from the motor yacht as we passed a short distance to the north.

Eighty nautical miles north of the equator, the building of the lighthouse was necessary because of the danger of Pedra Branca, particularly for ships entering the Strait from the S China Sea during the N E monsoon period with its strong winds, heavy rain and poor visibility. The tall tower, built with rock quarried in Singapore and the powerful rotating light visible at a range of 20 miles, immediately made a major contribution to safety and was welcomed by seafarers.

Now, electronic position finding devices have decreased the importance of lighthouses and many aboard the ships passing Horsburgh are likely to have little awareness of the need and the struggle to meet that need through building a 31 metre high tower on a reef awash and exposed to the full force of the N E monsoon swell. Work had to stop from November to February when the monsoon was at full strength. The heavy foundations laid on the first attempt moved and had to be redone.

The light and the distinctive tower housing it are no longer the guardians of the safety of those entering and exiting this congested, dangerous passage from the S China Sea to the Indian Ocean. In many respects Horsburgh has become irrelevant, as have many other lighthouses around the world.

While passing Horsburgh we took the accompanying photograph of the electronic displays aboard the yacht. Earlier, while still near the western end of Singapore island, the AIS showed there were 100 ships within a range of less than 2 miles. The many vessels shown, in the Strait and out in the eastern approaches, leave no doubt as to how congested these waters have become. As we watched the ships off Horsburgh clear the congestion and settle on their various courses out into the S China Sea, we could sense their masters' and watch-keepers' relief – another transit of one of the worst choke points now over!

By any standard this is very heavy maritime traffic, yet likely to become even heavier. Successful demonstration of the Marine Electronic Highway project has brought optimism that a form of electronic traffic control can be implemented. Progress indeed, but, will it effectively address the potential for mistakes by fatigued masters and watch-keepers, over-reliance on electronic aids and the complacency that tends to go with the use of these modern wonders, the heavy information flow generated by the need to control congestion and inadequate training in dealing with such situations.

While undoubtedly the initiatives taken by the three littoral states and associated funding sources will help greatly, one cannot help but feel that there will be more collisions in the Strait of Singapore. We are a long way from relying on lighthouses and beacons with their welcoming lights. We are also a long way from coping with the current and foreseeable situation in these crowded waters.

## Rod Short

Executive Secretary





## EMSA and MET in the Philippines

The Philippine Maritime Industry Authority (MARINA) is confident that the 80,000 Filipino seafarers on board European Union flagged vessels will retain their jobs as they are already making necessary changes to pass the European Maritime Safety Agency (EMSA) audit.

*"We expect that EMSA will find the quality standard system that we adopted, hewing to Executive Order 75, satisfactory,"* MARINA OIC Nicanor Conti said.

Conti also said that the audit will be done in two phases. The first was held last April while the second will be done this October.

*"In the first phase, EMSA will check the system as introduced under Executive Order 75,"* he said.



*"The next audit will focus on the performance of the maritime schools and training centers,"* Conti added.

MARINA is now the sole industry regulator under the EO 75 and they have already come up with a set of rules aligned with the standards of the STCW Convention.

*"We (Marina) will be the one who will determine how the STCW Convention is implemented,"* he said, adding that such function was previously relegated to a Maritime Training Council, which is composed of representatives from Technical Education and Skills Development Authority, Commission on Higher Education and Professional Regulation Commission.

*"We have also hired and trained additional technical personnel to undertake the effective monitoring of maritime education and training institutions,"* concludes Conti.

**World Maritime News 10 May**



## Prof Malek Pourzanjani Appointed to GlobalMET Advisory Council

It is a pleasure to advise that Prof Malek Pourzanjani, President, Raffles University Iskandar has accepted GlobalMET's invitation to join the Advisory Council.

Prof Malek was trained by Y-ARD of Glasgow and worked in the shipping industry from 1970 to 1980. In 1980, he commenced reading for a Bachelor of Science (Hons) in Maritime Technology at the University of Wales followed by a PhD in Engineering Science at Exeter University. He stayed on as a Lecturer in Marine and Systems Dynamics at Exeter University until he joined Southampton Solent University in 1991 as Principal Lecturer in Maritime Technology, leading to his appointment as Professor and Dean of the Maritime Faculty from 1996 to 2001.

Prof Malek's main area of interest is maritime safety which spans the entire spectrum of ship design and operation, in particular education and training and human factor issues. He has been the Lead Investigator on numerous Research-Council and European-Commission funded research projects and has published extensively in this area. Prof Malek is a Chartered Engineer and an active Fellow of three

professional institutions. He is also a Member of the Marine Technical Committee of the International Federation of Automatic Control (IFAC) and the Founder of the Manoeuvring and Control of Marine Craft (MCMC) series of conferences, now run by the IFAC. He has previously worked as a Consultant to the Canadian Government, and the International Maritime Organisation.

Prof Malek held the INMARSAT Chair in Maritime Affairs at the World Maritime University (UN), where he was a Resident Professor from Jan 2003 to Oct 2006. He was appointed as the President and Principal of the Australian Maritime College in Oct 2006 and was also Pro Vice-Chancellor of the University of Tasmania, a position he held from January 2008. In January 2012 Malek moved to Johor Bahru to serve as the President of Raffles University Iskandar.



## The Absorbents

**Absorbents of various kinds are very useful to seamen.**

Sand with scoop, an ancient prescription is still very useful in controlling small spills and fires and in preparation of cement boxes as a temporary measure to deal with seawater ingress. Mixing cement and sand is an art in regard to proportions to gain strength. Coarse sand is also helpful in preparing anti-slip surfaces. In the SOPEP room we keep absorbent pads to deal with oil spills. Even the newspaper is very useful in removing oil from the surfaces. Earlier in the days of "G" nibs and ink pens, blotting paper was essential as office stationery.

Some years ago we used to order "loofa sponges" to remove oil from the surfaces of the hot well so that oil does not find way to the boiler. We used to clean them with steam and re-use them. This item is the nest created by a small bird called "baya" and what a skilled bird this is, the most natural architect. If you go to the villages you will find a lot of these nests hanging from the branches of trees and they were useful to seafarers as well. To protect nature, we must emit and discharge



pollutants to near zero - that should be our aim on board a ship.

Cotton cloth (cotton rags) are good absorbents too, besides use for wiping and cleaning. It has been noted that even a slightly soiled piece of cloth is discarded whereas these can be reused to wipe out oil, say, from the catchment trays to curtail consumption of cotton rags (good quality white cotton rags are difficult to get in many ports). We must store them in bins with effectively closing lids secured properly so that they don't turn over in bad weather. Oily rags should be incinerated when the vessel is in open seas and entry made in the garbage record book.

On my last ship, there was ingress of oil in the cascade tank and the motormen removed this very diligently, amidst heat, using foam sponges and pouring the contents into the sludge tank. It has been noted these days that sludge tank heating coils are not being pressure tested - and not even the heavy oil settling tank heating coils - largely for economic reasons, but should be done, even at increased intervals.

The storage, usage and proper disposal of absorbents is a very important task on board and must not be considered lowly, not worthy of attention by the Chief Engineer, Chief Officer and the Master.



The final test of a leader is that he leaves behind him in other men the conviction and the will to carry on.

Walter Lippmann



## A Study on Merchant Marine World Fleet Scenario

### Past and Future Trends

By

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#### Abstract

The merchant marine industry is always exposed to fluctuating and unpredictable market conditions and frequently experiences wild shocks in revenue and asset values. The value of vessels can vary significantly depending on the supply and demand chain. During the volatile market conditions, ship prices fluctuate over a wide range. Shipowners with a large number of high-value vessels subject to a high level of mortgage with variable interest rates are particularly vulnerable to such wild fluctuations.

All the phases of a ship in its life-cycle (new building, operating stage and recycle/demolition) have great dependency on market conditions.

#### Introduction

Most of global shipbuilding takes place in Asia since around the middle of the 20th century. The three stalwarts - Republic of China, Republic of Korea, Japan - are the major players of the ship building industry. The Peoples Republic of China is estimated to hold about 44 per cent of the current order book, followed by the Republic of Korea (30 per cent) and Japan (17 per cent). Japan is still considered a quality ship-building icon with assurance, but carrying a high price tag. However, considering new orders placed in 2011, builders in the Republic of Korea generated more new business during the year than Chinese shipyards. Orders at Chinese shipyards tended to be largely for dry bulk ships, while the Republic of Korea has a larger share in higher value container and specialized ships. Lately, the trends of new buildings in China are shifting towards all types of vessels including specialized ships, project ships, and oil/gas tankers, etc.

Similarly, most of the world's ship recycling also takes place in developing countries in Asia. India accounted for 33 per cent of GT demolished in 2011, followed by China (23.9%), Bangladesh (22.4%) and Pakistan (13%). There is also a pattern of specialization in India, which had its highest market share in the scrapping of container and other dry cargo ships. Scrapyards in Bangladesh and China purchased more tonnage of bulk carriers, while those in Pakistan mostly demolished tankers.

#### Tonnage on Order

Since the economic and financial crisis of 2008 and 2009, far fewer new orders have been placed than tonnage delivered by the world's shipyards. This has helped to reduce significantly the existing order book. Since its peak in autumn 2008, the total order book has decreased by 43%. The reduction in the order book for tankers has been even more impressive - at the end of 2011 tanker tonnage on order had declined by 57% compared with three years earlier. In terms of DWT, more than half of the existing order book is for dry bulk carriers. Compared with the existing fleet; the order book for dry bulk carriers also continues to be the largest, amounting to almost 30 per cent of the tonnage existing in January 2012. Container ships on order are almost 25 per cent of the current fleet, with oil tankers under 13 per cent. As an exception among the major vessel types, for

the first time since 2006 the order book for container ships actually increased between the end of 2010 and the end of 2011.

Among specialized vessels, the most important increase was recorded for liquefied natural gas (LNG) tankers, for which the current order book now stands at more than 20 per cent of the existing fleet. As a response to the expected further surge in demand for LNG transport following opposition to the use of nuclear energy in Japan and other countries (this opposition being expected to increase the use of LNG), a historically high number of new orders for LNG carriers was placed in 2011. Several new orders are of the tri-fuel design, enabling the ship to run on fuel oil, diesel, or natural gas.

Another important increase was recorded for offshore vessels, including orders placed for drilling and support ships to serve new explorations in Brazil and West Africa. New orders for dry cargo ships (bulk and containers) in 2011 were about as high as in 2006, that is, during the boom years before the financial and economic crisis, while new orders for tankers were among the lowest in recent history. Among container ships, the majority of new orders are for ships above 10,000 TEU; these so-called mega-ships will account for more than half of the container fleet (in TEU) by 2015.

#### Recycle/Demolition of Ships

The large majority of ships demolished in 2011 were between 20 and 40 years of age, with a peak at the age of 30. Tankers tended to be demolished at a younger age, while general cargo and container ships were more likely to be kept in business beyond the age of 30. The shorter life cycle of oil tankers is in part the result of increasingly stringent environmental regulations.

In early 2012, MOL (Japan) reportedly sold five oil tankers for scrapping, including modern double-hull ships, "to help alleviate overcapacity in the charter market". Rather than sell the ships to other owners, who would then compete for the same cargo, it was considered preferable to demolish the ships - even if the immediate earnings from such a sale would be lower than from a sale on the second-hand market.

In total, the quantity of tonnage sold for demolition increased by 31% in 2011 compared with 2010. The increase was due to the surge in the scrapping of dry bulk ships (plus 356%), while some other vessel types actually saw a slight decline in demolitions. Many of the dry bulk ships demolished were effectively still seaworthy, built in the eighties and with valid certificates for several more years of trading. However, as new tonnage is more energy efficient, given the extremely low charter rates, many owners still found it more profitable to sell for scrap instead of continuing trading at a financial loss. This economic context, combined with renewed demand from scrapyards in Bangladesh, has led to a further surge in ship recycling in early 2012. In May 2012, a 13-year old container ship was sold for demolition, making it the youngest merchant vessel to be demolished since the economic crisis in 2008.

#### Tonnage Utilization

By the end of 2011, less than 1% of the world merchant fleet of tankers, dry bulk and general cargo carriers was reported as 'idle', which is less than half of the idle share at the end of 2008. Among



the different vessel types, the highest idle shares were reported for LNG tankers (1.9%) and for the ro-ro fleet (1.7%). While there is no agreed definition of the term 'idle', for the purpose of illustrations, the idle fleet includes ships that are reported as laid up. However, not being reported as laid up does not necessarily imply that the ship is at present transporting cargo. For example, the available tanker capacity waiting and ready to take cargo in the oil-exporting Persian Gulf region was reportedly 10% higher than the available cargo in early 2012. The share of idle tonnage in container shipping is not quite comparable with the idle bulk and general cargo fleet. While tankers, bulk carriers and general cargo ships in the tramp business may be waiting for new cargo without immediately being considered 'idle', a containership that is not participating in a regular liner service is reported as idle. In early 2012, about 5% of the container ship fleet was thus inactive, including six ships larger than 10,000 TEU.

### Slow Steaming Adoption in Container Shipping

Since 2008, container shipping companies have systematically reduced the speed of their services by introducing slow steaming. This has allowed them to absorb additional vessel capacity, thus reducing the oversupply of tonnage. It has also helped to significantly reduce fuel consumption. When initially introduced, slow steaming did not meet much opposition from shippers, because during the economic downturn many importers were not particularly concerned about replenishing their inventories. At present, an estimated 5% of the total container fleet capacity is absorbed by slow steaming. Estimations for the average speed of shipping lines point to 15 to 20 knots for different levels of slow steaming. This is still faster than the usual sailing speeds for dry and liquid bulk ships, which tend to be around 10 to 15 knots. Depending on distance and speed, cost savings can amount to between 3% and 5% of vessel operating costs.

The inventory cost (capital, depreciation) of the goods that spend more time en-route may well be higher than the cost savings made by the carriers. Shippers, who have to bear

the inventory costs, have accordingly complained about this situation. Nevertheless, shippers have also realized that slow steaming may improve service reliability, and in the end may not be too concerned about the speed of delivery. A further reduction of service speed would not make technological or economic sense – engines would suffer, and the savings made in fuel reduction would be outweighed by additional operating costs resulting from the need to deploy additional ships. Returning to the previous higher speeds appears unlikely, too, as businesses have now adapted to the inventory held on the ships, and in view of the continuing oversupply of tonnage, the carriers have no room to re-absorb additional capacity should it be released from slow steaming. It appears that the current speeds may become the norm, with high speeding being considered as a form of premium service.

### Conclusion

The shipping industry is a catalyst in the globalization of markets. There have been a series of studies by key market analysts to predict trends in future scenario of merchant shipping and world trade. They cover issues like energy, emissions, and the development of infrastructure for marine transportation, emerging markets, new trends in world trade, attracting and managing personnel. The shipowners and the key stakeholders should move pre-emptively and lead the developments in terms of reducing carbon emissions from their vessels. In a recent annual event hosted in Hellas for a third straight year, the adoption of measures to reduce emissions from shipping was seen as inevitable and this is why shipowners need to act now, instead of waiting for the outcome of institutional initiatives, before they react.

The effect of these measures is expected to be significant and should be taken into account in the financial models used by companies, in order to evaluate the cost of their investments and the structure of their strategies.

#### Two Maersk Triple E ships building at Daewoo

The first of these largest container ships 'Maersk McKinney Moller', is afloat and due to be delivered in late June. Maersk has a option to obtain 20 of these 400 metre, 10,000 teu ships. Picture by John Konrad of gCaptain 13 May





## Ships Energy Efficiency Management Plan e-Learning Course



By  
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### Introduction

I have always wanted to do an on-line e-learning project involving an IMO model course and was ecstatic when a project on Ship Energy Efficiency Management Plan came along. The project was timely with new IMO MARPOL Annex VI technical and operational energy efficiency measures coming into effect January 2013. According to a press release posted on the IMO website,

“The amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) were adopted in July 2011. They add a new chapter 4 Regulations on energy efficiency for ships to MARPOL Annex VI, to make mandatory the Energy Efficiency Design Index (EEDI), for new ships, and the Ship Energy Efficiency Management Plan (SEEMP) for all ships. Other amendments to Annex VI add new definitions and the requirements for survey and certification, including the format for the International Energy Efficiency Certificate.” (<http://www.imo.org/MediaCentre/PressBriefings/Pages/01-MARPOL-EEDI.aspx>).

### Webhosting

Having worked with Moodle, being quite familiar with it, and having personally implemented numerous upgrades to Moodle, I was extremely comfortable with the administration and creation of content on not only Moodle—but significantly, the webhosting service and Linux operating itself; the webhost, although a major piece of the overall puzzle, would turn out to be the “least worrisome” of the total project; That being said, the acquisition and use of a first class webhost is a necessary and sufficient condition that must not be undertaken lightly or haphazardly—as this will significantly impact and dictate much of what will be able to be done on the site and by extension, the LMS or Content Management System (CMS) and those attempting to use it; Nowadays, the term CMS has gained popularity and is oftentimes used. In this regard, with a CMS not only can the learning be managed—but the overarching structure, content and learning can be managed with true CMS.

Generally speaking and in many respects - webhosting is an exercise in how much money one is willing to spend or has and how much subject matter expert/manpower one has to apply to “the problem”. When one searches for a webhost and are not familiar with ICT (Information and Communications

Also see IMO press release, *Mandatory energy efficiency measures for international shipping* adopted at IMO environment meeting (<http://www.imo.org/MediaCentre/pressbriefings/pages/42-mepc-ghg.aspx>) and RESOLUTION MEPC.203(62), adopted 15 July 2011, Amendments to the Annex of the Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships. The latter has all the details and requirements including such things as new energy efficiency definitions, surveys, certification, in addition to major modifications to chapter 1, 2, 4 and new Appendix VIII (Form of International Energy Efficiency (IEE) Certificate) requirements.

Developing an e-learning course in a learning management system (LMS), in this case Moodle, in and of itself is not too difficult; however, significant concerns like the type of webhosting service to use for the site; the mechanics of creation, development and use of materials on the site; best practice pedagogical frameworks to utilize and finally, understanding up to synthesis of the energy efficiency content itself required for use on the site would prove challenging at best; especially since the material is not all in one place!

Technology), one may be inundated with information about bandwidth, uptime, shared, virtual and/or dedicated hosting; For example, a typical advertisement might be as follows:

- ✦ Unlimited storage and bandwidth
- ✦ 99.9% uptime guarantee
- ✦ Free 24/7 technical support
- ✦ Easy, one click setup.

\*Advertisements is from [Godaddy.com](http://Godaddy.com)

In addition, packages might be labelled as Economy, Deluxe or Ultimate with a comparison chart for features. Even so, there isn't much of a clue as to how the features really serve your purpose; the package operating system will most likely be either Linux or Windows and be differentiated by such features as bandwidth, disc space, number of databases available, domains services available, security capability and malware protection schemes to name a few. The prices range from about USD3-6/month to something like USD8-15/month. Possibly not known, is that many of the webhosts have popular software packages that can



also readily be installed by the administrator at a few clicks of the button, e.g., Moodle, Word Press, Drupal, to name a few.

Of course there are some more significant details, e.g., the purchase of an internet name or domain name to use with the site, however, the lion's share of what one needs to be aware has been stated; subsequently, affordable webhosting is doable! Even though it's more than tempting to try and lease or outsource the webhosting and management—in the opinion of the author, the further one is removed from the inner workings of webhosting, the more likely it is that getting exactly what you want and need from one's site will become a distant reality.

### Pedagogy

A CMS like Moodle (modular object-oriented dynamic learning environment) is both extremely functional and yet, deceptively complex! Moodle is also a free or Opensource tool created by Martin Dougiamas. According to Wikipedia, Martin has degrees in both Computer Science (PhD) and Education (PhD) and had a "...significant impact on the implementation of constructivist models of teaching and learning online..." ([http://en.wikipedia.org/wiki/Martin\\_Dougiamas](http://en.wikipedia.org/wiki/Martin_Dougiamas)). This is the back story of why Moodle is such an exceptional tool for the job of developing an e-learning site with the goal of the accomplishment of learning outcomes and competencies as it relates to Maritime or any discipline for that matter. Moodle also makes a Moodle Tool Guide for Teachers to help aid them in the selection of what one wants to achieve in pedagogy and what technology in Moodle one wants to use to achieve it (Moodle News, Moodle 2 Tool Guide, April 2013). This Moodle Tool Guide 2 is based on the original guide created by Joyce Seitzinger.

So as one can see, Martin developed Moodle with pedagogical frameworks in mind. The Ship Energy Efficiency Management Plan (SEEMP) course seemed a perfect case to try and apply these frameworks. One could apply sound pedagogical frameworks in an on-line e-learning environment and have built-in frameworks that facilitate measurement and reporting. And for those not too familiar with SEEMP, it's about taking action related to the Maritime Shipping Industry's share of contribution to Climate Change, more on that later!

Having lectured at a maritime university for more than five years; haven taken a number of training courses related to teaching and facilitation; and having experiences creating content and materials with Moodle, the challenge - albeit daunting, seemed doable! All that had to be done was stick to the tools, guides, model course and frameworks and everything would work out. Moreover, just making presentations (PPT, PDF and SCORM)<sup>1</sup> on-line that just "played on-line" seemed outdated given the many new e-learning and web environments available today for enhancing behavioural and social constructive learning. In order to do that and best leverage the CMS, however, learning the inner workings, mechanisms and philosophy behind Moodle's scales, grade book, outcomes, assignments, forums, workshops, etc., would be required; in that context, Bloom's Taxonomy, Gagnes 9 Events for Learning and other methods also had to be learned and applied in order to create a challenging, meaningful, accurate, and effective eye popping course!

### Ship Energy Efficiency Management Plan

Many of the statistics on Global Warming are based on projections and may need to be revised based on the economic downturns from the past several years; the consensus is that Global Warming and CO<sub>2</sub> emissions from shipping is about 2.7, some 856 million tonnes of CO<sub>2</sub>! Subsequently, the International Maritime Organization (IMO) had taken the lead on changing those numbers for the better with amendments to the MARPOL

Annex VI as mentioned in the introduction; essentially, the reduction outcomes should bring about be a 25% reduction from designated benchmark levels—for example, 2007 benchmarks. According to a Maersk Line press release given this January, Maersk has reached its 25% CO<sub>2</sub> reduction goal from its 2007 benchmark and is "...raising the target to a 40% reduction in CO<sub>2</sub> by 2020..." (Churchill, John O., 2013) Since the amendments went into effect, maritime institutions have been trying to create course work in various forms (e.g., traditional and blended) to try and understand what's required to bring about behavioural change and compliance - thus, the impetus for the author's current SEEMP project.

According to MEPC 60/INF.23, the IMO Secretariat, "...has engaged the World Maritime University (WMU) to develop a draft model course for energy efficient operation of ships..." (1). The course includes detailed course descriptions, syllabus, outlines and lesson plans. The main "catch" with the IMO SEEMP model course from WMU is that it is extremely detailed and specific; so in theory, if one could just follow the SEEMP IMO model course—"as a road map;" the only way to get lost would be to detour from the recommended way ahead! One concern is that the development and creation of the endorsed content requires a significant amount of time for not only reading and sifting through the myriad of material for citation and the creation of training materials to ultimately go on-line, but in addition, requires a great deal of time and skill to navigate the CMS and utilize sound best practice pedagogical frameworks to end up with content that presents itself well in the on-line format! Of course the content must also bring about the desired effect on competences. Any SEEMP, or e-learning course for that matter, should also utilize the latest social media techniques to help leverage the possibility of the desired behavioural changes. Problematic, is that not all these capabilities reside with one person! A well-organized team and project management will be required to complete such an on-line course in a timely manner—6-9 months; Also required for practicals is the support from simulators and other processes to help analyse and synthesize the course materials;

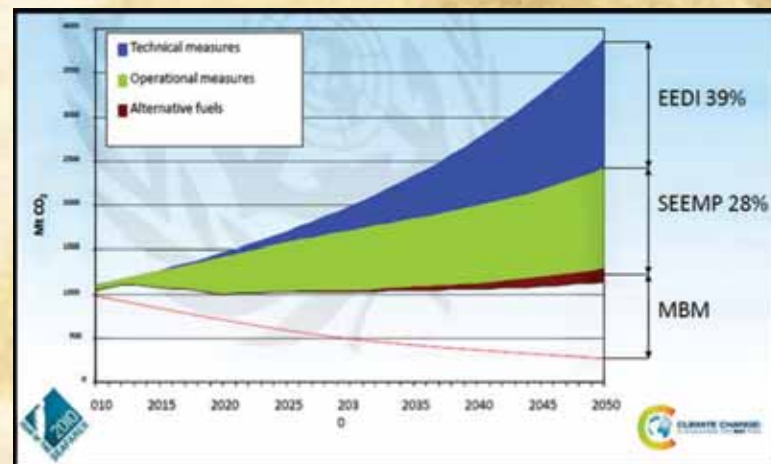


Figure 1 - Taken from *IMO Related Work; and the report IMO activities on control of GHG emissions from ships*, by Eivind S. Vagsliid, Head, Chemical and Air Pollution Prevention Section Marine Environment Division -IMO

It is tempting to just dive right into SEEMP and start reviewing logs, printouts and computer data and drive for the completion of some SEEMP; however, as one can see from Figure 1., above, the control of Green House Gases (GHG) or CO<sub>2</sub> emissions is about more than just a SEEMP! So manipulating data to come up with figures is not the end game; ship owners, governments and investors must consider business cycles, likely economic



scenarios, consequences and much more as they formulate scenarios that among other things actually reduces CO<sub>2</sub> emissions from shipping and improves the bottom-line! Moreover, the discussion and discourse here has tried to help facilitate that process. In the proposed SEEMP on-line course; various forums, chat-rooms and other social media are available to help provide a richer environment for learning and the flushing out some of the important issues and concerns - hopefully, making the whole experience a forth while one!

If we compared reduction measures between the technical and operational - EEDI and SEEMP respectively, we would have a table like the one provided below from in the report, MEPC 62/INF.2, ASSESSMENT OF IMO MANDATED ENERGY EFFICIENCY MEASURES FOR INTERNATIONAL SHIPPING:

	EEDI reduction measure	SEEMP Related measure
1	Optimised hull dimensions and form	Engine tuning and monitoring
2	Lightweight construction	Hull condition
3	Hull coating	Propeller condition
4	Hull air lubrication system	Reduced auxiliary power
5	Optimisation of propeller-hull interface and flow devices	Speed reduction (operation)
6	Contra-rotating propeller	Trim/draft
7	Engine efficiency improvement	Voyage execution
8	Waste heat recovery	Weather routing
9	Gas fuelled (LNG)	Advanced hull coating
10	Hybrid electric power and propulsion concepts	Propeller upgrade and aft body flow devices
11	Reducing on-board power demand (auxiliary system and hotel loads).	
12	Variable speed drive for pumps, fans, etc.	
13	Wind power (sail, wind engine, etc.)	
14	Solar power	
15	Design speed reduction (new builds)	

**Table vi - Technologies for EEDI reductions and SEEMP related measures**

All these requirements need the coordinated efforts of many people, mechanisms, sponsorship, buy-in and understanding for CO<sub>2</sub> reduction to occur and the SEEMP course to succeed—and most importantly, there must be very realistic practicals and assignments for synthesis to occur; this would require the ability of simulators to do specific tasks which current simulators don't appear to be able to do, at least the ones accessible to the general public or learning institutions.

In conclusion, the important or central document will be the IMO/WMU SEEMP Model Course; it will allow for the “spot-on

illumination” of all the other required references and documents and make for the correct framework and way ahead! If one is not actively utilizing the document to “create a SEEMP course,” there will be a gap between IMO expectations and the proposed course. Other agencies allied with the IMO for SEEMP are INTERTANKO, OCIMF and Lloyds Register which have already made SEEMP, Energy Management Plans and Best Practice guides, samples and recommendations - so maybe what's not required is another SEEMP but rather tweaking of plans already put forth!

<sup>1</sup> Power point (PPT), Portable document format (PDF) and Sharable Content Object Reference Model (SCORM)

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# SEA Poster Project

At the GlobalMET Board of Directors' meeting held in Singapore on 12 April, Len Harbottle, Senior Manager, Marine Personnel & Training, BW Fleet Management, a GlobalMET Member, offered to assist with the marketing of the Seafarers Environmental Awareness Raising Project - the SEA Project - and has kindly provided the two photographs below:



GlobalMET is very grateful to BW Fleet Management. BWFM is responsible for the ship management of vessels owned or operated by BW Gas, BW Maritime and other companies in the BW Group. It combines the technical expertise of the tanker and gas ship management teams and provides services within technical management, crewing, newbuilding and projects.

Members will recall that to date some 1500 posters of the Sargasso Sea - below:

have been produced, with many placed aboard ships, in academies and shipping company offices. Members are urged to assist with the marketing and distribution of more of these posters. The cost per poster is USD 10. Please order through [www.globalmet.org](http://www.globalmet.org) or through the GlobalMET Member

Maritime Training Services site [www.maritimetraining.com](http://www.maritimetraining.com), or send your request to [secretariat@globalmet.org](mailto:secretariat@globalmet.org)

These attractive, informative posters, the first in a series featuring different parts of the oceans, are for raising seafarer awareness of the environmental features of areas their ships are passing through. GlobalMET is now liaising with



interested parties with respect to the production of Seafarer Environmental Awareness Raising materials - posters and other means of delivery to seafarers and maritime people - relevant to the Straits of Singapore and Malacca and the Coral Triangle Initiative in S E Asia.





## Excellence in Maritime Training Recognised

Captain Anura Seneviratne's commitment to excellence in maritime training has been recognised with a prestigious international award from industry magazine Sailor Today.

AMC's Head of Department: Maritime Training took home the Maritime Trainer of the Year award at the 12th Sailor Today/Ship Shore Industry Award function, held in India and attended by maritime professionals from around the world.

SailorToday is a monthly international shipping magazine based in India and widely read by maritime professionals from South and South-East Asia.

Captain Seneviratne joined AMC, a specialist institute of the University of Tasmania, in 1990 following a 17-year seagoing career. He gained considerable experience as a senior lecturer and course coordinator of deck officer programs at AMC, before being appointed to his current role leading the maritime training department.

Maintaining AMC's links with Asia has been a priority for Captain Seneviratne over the years, and he was very pleased to accept the award in front of his peers.

"There were more than 1500 maritime professionals from around the world at the function and I was enjoying many valuable networking opportunities. Imagine my surprise when my name was called out," Captain Seneviratne said.



"It is a big achievement for AMC. They were not just talking about maritime trainer of the year in India or the subcontinent; professionals from all over Asia, Europe and other parts of the world were present as well."

Captain Seneviratne said the award was recognition of the team effort by AMC academic and professional staff, and acknowledgment of the institute's strong international reputation.

"There are more than 200 maritime training institutions in South Asia alone, so it is very rewarding for AMC to be recognised for its maritime training on such a global scale."

He who has never learned to obey cannot be a good commander.  
Aristotle





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