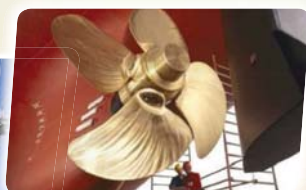GLOBALMET
MARITIME EDUCATION & TRAINING

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.
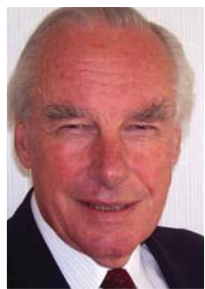
NewsLetter

Train, Train, ReTrain, ReTain!

GLOBALMET
MARITIME EDUCATION & TRAINING

Inside this Issue

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Editorial

IMO Secretary General Koji Sekimizu's call at the opening of the recent ICS conference in London for the maritime community to 'start considering a new regime for the future' is timely. While his address focused mainly on SOLAS, the call fits well with GlobalMET's initiative with the Asian Development Bank. SG Sekimizu commented:

> "We need to start as soon as possible a holistic review of the current regime. We should not rush, but we should start working now with all stakeholders; emerging technologies and innovation for the huge potential to take safety into the new era,"

> "As we are aware, and despite the huge advances that have been made in recent years, each new generation of vessels brings fresh challenges and accidents still occur."

> "Our efforts to promote maritime safety can never end, but it is my belief that we stand on the brink of a new and positive era for ship safety, with techniques such as probabilistic risk assessment and measures such as goal-based construction standards pointing the way towards more robust and safe designs."

The very good, very well attended 14th Asia Pacific Manning & Training Conference in Manila at the end of October focused more on the human element and struck a similar note on the need for change with respect to MET, especially during the GlobalMET Session "Human Resource Development in Asia Pacific: Outlining a proposed new industry initiative".

Chairman Tim Wilson addressed *What is this project and why was it initiated*, Senior Education Specialist for S E Asia for the Asian Development Bank, Norman La Rocque addressed *Why the Asian Development Bank supports the project* and Terence Uytingban, Vice President, AJ Centre for Excellence in Manila addressed *Why the industry supports this project*. I had the privilege of chairing.

Even though it was the last session of the day some 500 conference participants, including senior industry people, filled the venue. More are now aware of the initiative GlobalMET is taking with the Asian Development Bank. We've received many expressions of support.

The encouraging approach taken by the ADB provides strong incentive for GlobalMET to get this project under way, initially by soliciting more support from the maritime sector, together with identifying actions that accord with the recommendations

in the Fisher Report, clarifying and costing those actions and discussing them with the bank.

Conference Chairman Gerardo Borromeo emphasised the need for the global shipping industry to act more like a choir if needed change is to be implemented. (There were no surprises in the use of a choir analogy in the Philippines where there is so much music.) In a choir the performance depends upon all members listening to the others and teamwork is essential. In the shipping industry individuality tends to dominate, resulting in fragmented actions.

The ball is very much in GlobalMET's court, creating with the support of the industry a major opportunity for us to assist in ensuring that MET meets the requirements of a safe, efficient, clean and secure shipping industry into the future.

Postscript

Having just enjoyed the warmth and friendliness of the Philippines it is even more appropriate to express on behalf of GlobalMET deep concern about the appalling destruction and loss of life caused by typhoon Hayian and our hopes that GlobalMET members in the Philippines are coping well with the aftermath. We think particularly of the National Maritime Polytechnic in Tacloban City, which suffered the full impact of the storm.

Rod Short
Executive Secretary

Proposed ADB Project

"Human Resource Development in the Maritime Sector in Asia and the Pacific"

In November 2011, during the 12th Asia Pacific Manning & Training Conference in Manila, GlobalMET Chairman Tim Wilson and ExecSec Rod Short, accompanied by Capt Vinayak Mohla of GlobalMET Member Anglo-Eastern met Vice President Ms Lakshmi Venkatachalam at the Asian Development Bank and proposed a bank project that would assist seafarers, particularly their education and training. As a result, following a presentation by Rod Short to relevant bank staff the following May, the project "Human Resource Development in the Maritime Sector in Asia and the Pacific" was proposed and the ADB commissioned Fisher Associates of the United Kingdom to conduct a strategic review of needs in the Asia Pacific Region.

The Fisher Report received by the ADB in June 2013 has been welcomed. The Report recommends four Outputs and 12 associated Activities, illustrated below. Priority Activities have a red border.

(I) Policy and regulatory environment improved	(II) Partnerships strengthened	(III) Quality of MET improved	(IV) Knowledge sharing strengthened
Technical Assistance to Individual MSAs	Improved Partnership Working	AP Regional Quality Mark for Colleges	Centre of Excellence for Knowledge Sharing
	Increase Direct Participation of Employers in Colleges	Support Training of Trainers	
	AP Recruitment and Retention Initiative	Course Structures and Curricula	
	Development of Model Competency Management System	Gap Funding for Equipment and Classroom Improvements	
		Improved Use of Distance Learning Techniques	
		English Language Instruction	

3

Fisher has pointed out that there is a strong degree of dependency/coherence between the Activities. Whilst individual Activities may be useful, particularly priority ones, the synergy between them and the Outputs they contribute to, mean that the collective impact will exceed the sum of its parts.

While "Human Resource Development in the Maritime Sector …" in the title of the proposed project implies development of HR in the overall sector, the initial focus and GlobalMET's involvement will address maritime education and training issues.

GlobalMET is now putting in place the management structure to progress the development of the proposal, following which interest in assisting with identification of actions relevant to the recommended Outputs and Activities and formulation of the document to go to the ADB by the end of the first quarter of 2014. Members and other interested parties will be invited to participate.

It is imperative that every effort is made to ensure a successful project, resulting in significant development of MET that better meets the needs of the global industry and its employees into the foreseeable future, particularly the needs of young people entering our great and critically important industry.

Maritime Environmental Protection and Regulatory Framework of UNCLOS and IMO MARPOL Annex VI

By

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Abstract

Over the last decades, ocean environmental protection has gained considerable attention at the international level and has become one of the highest priority areas for the Maritime Environmental Policy making of IMO Member States. Critically, efforts at the highest level have also been made to ensure successful implementation of environmental policies and MARPOL Annex VI, by ensuring that infringements are subject to effective sanctions, including, in serious cases, criminal sanctions.

As such, environmental crimes can be broadly defined as acts or conducts that breach environmental legislation and cause significant harm or risk to the ocean environment and human health for which criminal sanctions can be prescribed. The most known areas of environmental crime are the illegal emission or discharge of substances into air, water or soil, the illegal trade in wildlife, illegal trade in ozone-depleting substances and the illegal shipment of dumping waste. The United Nations Convention on Laws of Sea (UNCLOS) plays a very significant role in defining and implementing the maritime environmental policies and disputes resolution. UNCLOS also defines and determines the jurisdiction of flag, port and coastal states. Formally codified in 1982, UNCLOS is the basic legal framework that governs international shipping. As noted in Davies et al. (BMT* 2000), states operate in three capacities: as flag, port, and coastal states.

UNCLOS gives flag states the primary authority to impose environmental regulations (including those related to air emissions) on marine sources through their responsibility to enforce international laws.

The roles of other jurisdictions - i.e. port and coastal States - have traditionally been more limited (BMT* 2000). However, the language in UNCLOS suggests that non-flag states do have some authority to regulate marine emissions.

Definition of Pollution in UNCLOS

The definition of pollution in UNCLOS is limited to the marine environment that is, the world's seas, oceans, estuaries, etc. UNCLOS identifies and seeks to prevent or limit pollution from reaching the marine environment through six distinct avenues:

1. **from land based sources**
2. **from seabed sources subject to national jurisdiction**
3. **from activities in the Area**
4. **from vessels**
5. **by dumping**
6. **from and through the atmosphere (UNCLOS Art. 4).**

Air pollution is explicitly mentioned in UNCLOS Article 212, but it is only in relation to the deposition of pollution "from" or "through" the air into the marine environment:

> "States shall adopt laws to control pollution of the marine environment from or through the atmosphere."

While the IMO has focused primarily on those pollutants that pose a risk to the marine environment (i.e. NOX and SOX), it has also departed from the narrow definition in UNCLOS by examining the feasibility of addressing Greenhouse Gas (GHG) emissions.

State environmental agencies typically apply a broader definition that seeks to address adverse public health and environmental consequences from direct exposure to air pollution. That definition often includes not only NOX and SOX, which contribute to the eutrophication or acidification of inland bodies of water as well as to marine environments, but also pollutants such as Particulate Matter (PM) and Greenhouse Gases (GHG).

Jurisdiction of Flag States, Port States and Coastal States in UNCLOS

UNCLOS sought to balance the international shipping community's interest in the free passage of sea-going vessels with the local and national interests of coastal and port states. It did so by adopting a zonal approach, where the legal status of an ocean-going vessel depends on its physical location in three zones:

♦ On the High Seas
♦ Along a Coast
♦ At Port.

High Seas Jurisdiction

On the high seas, flag states hold sole jurisdiction over ocean-going vessels. In other words, ocean-going vessels on the high seas are required only to comply with globally agreed upon standards subject to enforcement by the flag state (Art. 217). With only limited exceptions, such as when a foreign flagged ship enters the territorial waters (e.g. a harbor) of another nation flag state jurisdiction, is the general rule under UNCLOS (BMT* 2000). Over time, the exclusive enforcement jurisdiction of flag states has been pared back by the IMO in order to promote more effective implementation of maritime safety and pollution standards (UN DOALOS – United Nations Division for Ocean Affairs and Law of the Sea 2003). Groups of port states surrounding major seas (e.g. Caribbean, Mediterranean, Black Sea, North Atlantic Basin) have entered into regional agreements (e.g. Paris MOU) to collaborate on inspections and enforcement. Once a regional MOU for the Gulf of Mexico enters into force, there will be a complete network of

regional MOUs covering most of the world's major shipping areas (UN DOALAS 2003).

Coastal State Jurisdiction

Coastal states exercise sovereignty over their territorial sea, which is defined as a band of water 12 nautical miles (22.2 kilometers) beyond the low water mark. Foreign vessels are allowed "innocent passage" through those waters. Activities inconsistent with innocent passage include fishing, spying, launching military devices, or "any willful and serious pollution contrary to this Convention (Art. 19)." Coastal states have the right to claim additional jurisdiction beyond territorial waters: an additional 12 nautical miles (22.2 kilometers) in the Contiguous Zone, and up to 200 nautical miles (370 kilometers) in the Exclusive Economic Zone (EEZ). Coastal states are entitled to enforce pollution control requirements that exceed MARPOL 73/78 standards only in their territorial seas and may not establish regulations that apply to the design, construction, manning, or equipment of foreign ships (Art. 21).

California has adopted sulfur fuel standards for auxiliary and diesel electric engines on ocean-going vessels operating within 24 nautical miles (44.5 kilometers) of the state's coastline 2007.

The regulation states that only marine gas oil or marine diesel oil with a sulfur content limited to 0.5 percent or less can be used in auxiliary engines operated within 24 nautical miles (44.5 kilometers) of the state's coastline. By 2010, only marine gas oil with sulfur content limited to 0.1 percent or less, will be allowed. In general, charges may not be levied on foreign ships travelling through territorial waters. Charges may, however, be levied as payment for "specific services rendered to the ship (Art. 26)" as long as the charges are not discriminatory.

Port State Jurisdiction

As a general rule, foreign ships enjoy no automatic right of access to ports of other nations, except in times of distress when lives are at stake or when another treaty is applicable. States have the right to exclude foreign vessels from their ports and inland waterways, and may apply national laws and regulations to foreign ships when at port (BMT* 2000). As a result, the port state has concurrent jurisdiction with the flag state when a ship is at port. Port state efforts to regulate foreign flagged ships are subject to certain limits. Any regulation must not be an abuse of rights, it must not seek to exercise jurisdiction over matters considered the "internal economy" of the ship, it cannot hamper "innocent passage," and it must not have the practical effect of impacting the "Construction, Design, Equipment or Manning (CDEM)" of ships (Art 21(2)). If any port state requirements run foul of these constraints, they are said to "travel with the ship" onto the high seas, and are likely to be "hotly disputed" (BMT* 2000).

According to one legal treatise on this topic, a standard that can only be met using the Selective Catalytic Reduction (SCR) System, an exhaust after treatment system, is a good example of a

*   British Marine Technology

requirement that would impact ship CDEM - once the technology is paid for and fitted, there is little point in leaving it off when the engines are running except to avoid the added cost of the urea needed to operate the SCR system (BMT* 2000). Nevertheless, the Swedish Environmental Supreme Court ruled in 2006 that "a local environmental board in a harbor city has the right to set requirements for ships that regularly call at the harbor in order to protect people's health" (Environmental Board 2006). The decision forces two ferry companies operating in Helsingborg to install NOX control systems on their new and existing vessels.

Thus the two major limitations affecting port state jurisdictional authority relate to the right of innocent passage and the prohibition on requiring changes in the CDEM of foreign vessels. UNCLOS Part 2, Section 3 guarantees innocent right of passage for foreign flag vessels in the territorial sea without being subject to any charges, except for services received. This restriction is clearly relevant to the control of emissions from shipping, since under a strict reading of this requirement, payments or charges designed to limit emissions from foreign flag vessels would have to be couched in a framework of providing services to those vessels. In addition, one aspect of the right of innocent passage, stated in Article 21 of UNCLOS, precludes coastal states from enforcing any regulations that apply to CDEM of foreign vessels. As already mentioned, this could be interpreted as restricting the ability of coastal states to require pollution abatement equipment or engine modifications on foreign vessels. One reason for considering market based approaches to emissions regulations is that they offer a flexible means of complying with environmental regulations, thereby potentially making it easier to promote the use of low emissions technologies in certain sea areas without impinging upon ships' right of innocent passage.

Conclusion

In general, the primary mechanism for regulating pollution from ocean-going vessels under UNCLOS is through international rules and standards set by the IMO, or in some cases, through other international treaties. States have the authority to subject foreign-flagged vessels to air pollution standards that go above and beyond international minimum requirements as long as certain conditions are met. Those conditions include allowing innocent passage to foreign vessels in territorial waters and refraining from imposing any rules that would have the practical effect of creating additional hardware or staffing obligations that "travel with the ship" into the high seas. In many cases, the legality of state action is inextricably tied to the practical effect of a regulatory policy.

As port and coastal states throughout the world seek to limit the adverse effects of air pollution from ocean-going vessels by enacting various new policy instruments, a new body of international rules and practice will evolve on a case to case basis. It is likely that the existing balance between flag, coastal, and port state authority will be re-shaped over time to better serve the interests of all parties.

How much Internet Bandwidth Should an Educational Institution Have?

Cracking the code on bandwidth and wireless connectivity for virtual learning environments in maritime education and training!

by
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After having written several articles thus far on the use of virtual learning environments (VLE) in maritime education and training—to include goals, the big picture and even information about using mobile devices, there's yet to be one touching on what many consider to be the very critical piece of internet bandwidth and wireless connectivity (IBWC); a potential show stopper for an institution's e-learning plans! Experience has also made it painfully clear that if there's going to be a problem in executing a "well thought out plan or project," it's probably going to have something to do with poor communications! Further, it's practically impossible to lead and manage VLEs successfully without at least excellent communications—in the case of maritime education and training (MET), that means both excellent internet bandwidth and wireless connectivity (IWC).

Most people when they think about IBWC, probably think of a picture something like what's in Figure 1., of wires and seemingly complicated network routing schemes—while that may indeed be a little true, thankfully that part is someone else's job. As much, what this article proposes to do is "crack the code" on the what and the how of bandwidth and let all know what's basically involved with it so as to be able to make reasonably informed decisions about acquiring appropriate internet services for the institution. In the end, however, reading this article still may not mean that the institution will suddenly make any bold capital budgeting expenditure decisions with regard to purchasing ICT system for VLEs—or maybe they will!

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Figure 1 - Network Stack Rack for the institutions routers and network connectivity.

In these high tech times, it goes without saying that ICT is a critical communications pathway between the educational institution's vision, goals and future potential revenue streams. Therefore, all key stakeholders should not take internet communications lightly—i.e., leave this decision for the ICT department alone to make. Case in point, in the recent U.S. Debt Crisis debacle, one of the key programs was the President's Affordable Care Act (or Obamacare as its' called). From the start of its implementation—the internet site for registration reportedly had serious multiple problems and became a big embarrassment at the highest levels of government. As such, to help avoid this kind of thing--this article will discuss how to "crack the code" on internet and wireless connectivity in support of the institution's VLE objectives.

Generally speaking, in the past this kind of discussion might have been left entirely up to ICT personnel—surprising considering a business' longevity, competitiveness, and brand may indeed depend on it! It might even be suggested that the interest of ICT e.g., budget, security and limited access/points—are not necessarily congruent with that of the business' vision as one might initially have thought! Besides, much of the relevant and important technical information required to make a reasonably informed decision is readily available on the net for most people who desire to seek it.

For example, there are numerous websites and mobile applications (apps) these days to assist one in getting to the bottom of connectivity issues like bandwidth and wireless connectivity. At its very core, it usually comes down to capital expenditure (CAPEX) budgets and the vision the organization sees for itself—short and long-term, real or imagined!

First, let's crack the code on internet bandwidth and why one should care. The bandwidth calculator (https://www. bandwidthpool.com/#/bandwidth-calculator), is a good place to start to try and get a handle on the variables involved with the selection of bandwidth and understanding related costs. The entering arguments are **Type of Usage**; **Connection Reliability** [required or desired]; and **Number of Internet Users** [concurrent users]—after which, one clicks the "Calculate" button. It should become quickly evident that Broadband or cable is not ideal for all the institution's needs— but it depends! **Type of usage** refers to : **Light** (Basic E-Mail and Web Browsing); **Moderate** (Some File Downloads, Streaming Music, Streaming Video, Cloud based resources; VOIP); **Multi-media** (Large File Downloads (high volume), Interactive Web Conferencing (video, desktop replication) and **Power User** (High Bandwidth Demand; Intense Internet-based Application Use; Multiple Devices Per User). Whereas, **Connection Reliability** basically refers to whether redundancy is either **Important** (No/<99%) or **Critical** (Yes/>99%); and lastly, enter the **Number of Internet Users** expected (best estimation). There is what's called throughput and load estimators that attempt to discern maximum throughput at peak hours and number of requests— however, this may only tell you at what point one's server begin to degrade vice directly telling you what you need to know (how many people are using the net).

According to *Networkworld News*, "Schools in the U.S. will need broadband speeds of 100 Mbps per 1,000 students and staff members [concurrent usage] by the 2014-15 school year in order to meet a growing demand for Web-based instruction and a skyrocketing number of student-owned Web devices…" (http:// www.networkworld.com/news/2012/052112-education-group-schools-need-100-259508.html). So if we assume a maritime

No.	Type of Usage	Connection Reliability	No. of Users	Calculation
1	Light	Important	50	Between **11 – 16 Mbps** Business DSL, Cable Modem or Ethernet
2	Light	Important	100	Between **21-26 Mbps** Ethernet, OC-3 or FTTx Single Provider
3	Light	Important	300	Between **64 and 89 Mbps** Ethernet, OC-3 or FTTx Single Provider
4	Moderate	Important	300	Between **129 and 154 Mbps** Ethernet, OC-3, FTTx or Gigabit Ethernet Single Provider
5	Moderate	Critical	300	Between **129 and 154 Mbps** Ethernet, OC-3, FTTx or Gigabit Ethernet Redundant and/or Other Providers
6	Multi-media	Important	300	Between **214 and 239 Mbps** FTTx, OC-12 or Gigabit Ethernet Redundant and/or Other Providers
7	Multi-media	Critical	300	Between **214 and 239 Mbps** FTTx, OC-12 or Gigabit Ethernet Single Provider

Table 1 - Estimated bandwidth calculations for an institution, Bandwidth Calculator

education institution's usage to be **Moderate** (believe this really needs to be **Multi-media**), its **Connection Reliability** requirement as **Important** (**Critical** really preferred, but maybe can't afford it) and of a student body of let's say 1,500—assume 300 concurrent student and staff internet users; the suggested calculation is as shown in no. 4.

If we look at the bare minimum just described in Table 1., one can see that 129-154 Mbps is suggested. Even given this estimation, when asked of an ICT expert about the calculations just described—the suggestion was that maybe the aforementioned could be done with 60 Mbps (assumes a lesser concurrent usage). Even so, the point is that the usual Broadband and cable doesn't really work for an educational institution with eyes on the future! Most Internet Providers worldwide provide an average Broadband of about 20 Mbps! One can also see in the calculation column, many new terms for consumption—too many for this article; Business DSL, cable, Ethernet, OC, FTTx, Gigabit Ethernet, etc. Let's take FTTx, where FTT refers to fiber optic cable and the "x" how one deals with the fiber (location), e.g., bring it to node, premise, curb, etc., "fiber to premise (FTTp)" is shown here. On top of an internet structure, the wireless piece is "layered," easy to see why if the underlying internet bandwidth is questionable—that the WIFI will also have significant problems! That being said, according to a reputable ICT expert—something like the aforementioned is estimated to cost maybe something like 5 million USD to implement. The previously mentioned source on education requirements also suggests that institutions should have a 5 year plan for 1 gigabit internet bandwidth connectivity.

Moving on to wireless/WIFI connectivity-- there are many tools on the internet and also some good ones for mobile devices that can help one get a handle on wireless connectivity issues; for example, the mobile device app from WIFI Tuners called WIFI Console. Mobile apps like this one can conduct surveys and such, however, other issues like RF behaviour, coverage areas, interference, moisture, structures, etc., can be quite complicated and require a real professional to get it right! These apps can tell you that you have issues, but diagnosing, placement and tweaking should be done by a real professional!

In conclusion, this article covered a significant amount in the way of requirements for internet bandwidth, connectivity and related variables, recommendations for educational institutions as well as an understanding of how to get started with WIFI or wireless connectivity for the institution.

That being said, delaying getting started on implementing a "coherent e and m-learning plan for learning in the classrooms" for lack of a "perfect plan" won't make the problem go away and on the contrary delaying could end up being detrimental to the institution's future. In as much, competition has a way of sorting these things out! There will be more on these and other very important VLE and internet bandwidth and wireless connectivity concerns, issues and solutions in future issues—until then, if there are questions please don't hesitate to email me at imanfiqrie@alam.edu.my and please endeavour to make ICT terminology part of your working vocabulary!

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Learn, Perform and Assess (LPA)

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Celestial navigation

When I was a second mate in 1991- 1993, the majority had stopped taking sights to determine noon positions. Celestial observation was no longer the trend at that time. It was no longer the 'in-thing'! Satellite navigation has killed one of the traditions at sea.

Today, I suppose people love it so much that they have insisted that it is maintained in the syllabus. Some argue that you need to go to the basics when all systems fail. I would like to believe that the probability for it to occur is extremely low. With the availability of GALILEO for civilian use, we will be able to handle any such breakdown 24/7, 365 days.

Practical navigation constitutes a fourth of the syllabus at Third Mate whilst Principles of Navigation a third at Second Mate levels those days. Celestial navigation forms a huge chunk of the syllabus in the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers (STCW), 1978 and subsequent major amendments in 1995 and 2010.

All deck watch-keepers are required to be competent and able to use celestial bodies to determine the ship's position whilst at management level they are required to determine position and the accuracy of resultant position fix by any means; i.e. including by celestial observations.

Can you name one case where the ship goes aground due to errors or mistakes made during celestial observations? In the open sea, anyone can act like a shipmaster or pretend to be one. The real test of navigation is in restricted waters where the margin of error is small; traffic and the weather are unpredictable. We should focus more on terrestrial rather than celestial navigation.

Nowadays, just point the e-marker telescope towards any celestial bodies, connect it to the computer and it will give you all the information you require. Technology has advanced so fast that what we buy today will be obsolete the next day. The real issue here is investment. Do you want to invest in all these gadgets when it is not legally required?

PlayStation Generation

We need to embrace technology into the syllabus. Information is everywhere. You must know where to look for. However, connectivity is still an issue at sea. If it is due to cost factor, then we need to address it. Someone has to pocket the bills; if need be, a special fund by the International Maritime Organisation (IMO)! Users need to make sure that the information downloaded is relevant and recent. We do not want to make decisions based on obsolete information.

Are we having 21st century classrooms? Are they wired to allow easy access to the net? Hardware and software issues should be the focus of discussions at the IMO level so as to lead the industry in the right directions.

When was the last time you used an overhead projector (OHP)? In this academy, the last career talk using OHP was in year 2003. Slowly, all the classrooms were fitted with LCD projectors. Now, all the trainers have access to individual notebooks. It is to promote a conducive learning environment.

Technology will promote effective learning by leaps and bounds unavailable in the 80's.

Good-bye AUSREP

The move by the Australian Maritime and Safety Agency (AMSA) to introduce Modernised Australian Ship Tracking and Reporting System (MASTREP) should be an eye-opener to other parties to get out of their comfort zones.

MASTREP leverages on Automatic Identification System (AIS) technology hence it has improved the efficiency of the reporting system used.

For many years, students have been complaining about the need to make verbal reports whereas AIS is available such as in Straits of Malacca and Singapore in compliance with mandatory reporting i.e. STRAITREP.

As we say good bye to AUSREP, we also need to move on and say the same to celestial navigation. It is our legacy.

Astronomy club

Celestial navigation belongs to this club! If not for the price of the telescope, I'd have started my very own astronomy club as part of community service. Many schools children are excited at the opportunity to discover the heaven. They would spend hours just to memorize the constellations.

They would throng the observatory stations nationwide to observe moon and sun eclipses. It is all because of love for the subject. Mind you it is not part of their syllabus! Passion will definitely drive people far. How do we develop it?

80/20 rule

Once, a student quipped; "am I in a museum or in a library?" Currently, many text books will last for a duration of about 3 to 5 years only. Sailing directions do not last for 25 years anymore as it used to be. We need to change with time. 80% of the syllabus should deal with competencies issues and the remaining 20% is on new technology. We should not be bogged down with syllabus which was right 30 years ago!

Drones and Robotic Conference (DARC)

Recently, there has been a conference on drones and robotics with a focus on civilian applications in New York, United States of America. It makes me wonder, when will this type of conversation arrive on our shores? It will be amazing to see students spending time on campus exploring on possible solutions rather than regurgitating fact which is easily available on the net.

Learn and Perform

In the new millennium, information is everywhere. The role of the teacher is not so much on the transfer of knowledge but more on shaping the mind/behaviour change. The teacher needs to be the change agent. Say no to violation should be the

mantra at any MET providers. Have you heard of a teacher by the name of Michael Lansberry from Nevada? It makes me wonder, how many will do the same in a similar situation?

Time spent in college is used to condition the behaviour; the right one. Students learn and perform on campus. All activities on campus are geared towards achieving meaningful results. With the right tools, learning curve can be improved further. Students are trained to serve the academy so that once graduated, they will be able to serve the shipping industry better.

Shipboard training is an important phase of the learning process. Students need to be guided and coached properly. Knowledge gained on campus is applied in daily activities on board. Shipping industry is all about compliance to requirements.

Learning is fun. I still believe that it is wrong for a student to curse his or her teacher; no matter what. Those who do not enjoy their time in maritime colleges should go and do something else. Sea-career is definitely not for them.

Assess

We need to assess our students to ensure that learning has taken place. It is to ensure that students are able to demonstrate the competencies required. In a mature environment, an assessment tool will always be fair and just. There should not be any surprises in a valid assessment system.

The simulator is a great asset in developing skills; i.e. ship-handling skills among the watch-keepers. It is also a useful tool for assessment.

Learn, perform and assess is the norm in any Maritime Education and Training (MET) institutions. What we need to do is ensure that people learn the right things and are able to perform their duties safely at all times. Of course, the role of a teacher is never the same as an assessor!

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Maintenance on Deck Cranes

Mahendra Singh

Good quality of system oil and no leakage in the system ensures good crane performance.

1. Daily, when the cranes are used to work cargo, inspect runner wires for wear or damage. Ensure the ventilation of crane motor is kept open to prevent overheating. Working in hot climates, Lub oil cooler air side may need to water wash for cooling and removal of powdery cargo.

2. The filters of the hydraulic system must be regularly cleaned or renewed and system purged.

3. Deck cranes are provided with limit switches to prevent over-hoisting and travelling beyond permitted limits and these must be tested as a routine. The over ride keys for limit switches should be kept safely in custody of a responsible officer or bosun.

4. Heaters for cranes are normally on a separate power circuit to that for driving the cranes. They should remain switched ON throughout the voyage to keep the electrical equipment for the crane warm and dry. The correct operation of cooling fans should be confirmed.

5. High temperature trips and low oil level trips or alarms should be kept tested.

6. The brakes for hoisting winch and for slewing and luffing machinery must be inspected for contamination with oil, for damage to adjustments and for wear. When necessary they must be degreased, say, with electrocleaner to prevent slipping.

7. Wire ropes must be inspected for flattening or kinking or for broken, worn or corroded wires and must be condemned when more than 5% of the wires in any length of ten rope diameter are damaged. Greasing points as per instruction manual must be greased including the slewing gear. Some important pages from instruction manual should be laminated and kept suitably affixed in crane house for ready reference.

8. Emergency exit for the operator, emergency stop and portable fire extinguisher in operator cabin should also be inspected and crane house bottom should be kept wiped clean to remove any water, dirt or oil.

9. If there are mechanical operating cables provided, say between hoisting lever and hoisting hydraulic pump (in attached picture), one cable at least must be kept as spare. Pay attention to other such important spares (including electrical) which may effect crane operation because such spares may not be easily and readily available especially at remote anchorages.

A Third of Seafarers are Burdened by Admin Tasks, Survey Finds

Source: Intermanager

InterManager

PROMOTING FIRST-CLASS SHIPMANAGEMENT

A third of seafarers are burdened by administrative tasks; survey finds Seafarers feel they spend too much time on tasks they consider to be an administrative burden according to the findings of a study by the Danish Maritime Authority, supported by InterManager, the international trade association for ship and crew managers.

A comprehensive survey of international seafarers has revealed that a third of all nationalities are annoyed or frustrated by administrative burdens in the maritime sector. These burdens stem from what the seafarers consider to be unnecessary repetition of tasks and demands for too much paperwork and documentation to be handled. The study also concludes that there is a "significant potential to relocate time to more fruitful tasks" to increase efficiency and quality.

The report states that "many seafarers are frustrated because they feel that the time usages are disproportionate to the gains of many of the tasks" and advises there is "a large potential to rationalise and/or digitalise at least some of the processes".

In addition, the report underlines the fact that "seafarers and shipowners" understand the rationale underlying most procedures and requirements even though these may lead to administrative burdens. They acknowledge that such procedures are not implemented with the aim of being a burden but that they in principle serve higher-end objectives like personal safety and environmental protection."

It points out there is scope for developing "work smart, easy-to-use" digital solutions to reduce paperwork and time consuming manual workflows, particularly in relation to port and pre-arrival procedures. In addition the report recommends a revived focus on seamanship and safety culture with a view to reducing the number of procedures and burdens and advises of a potential for increased co-operation and dialogue between stakeholders in all areas of the maritime sector.

InterManager Secretary General, Captain Kuba Szymanski, said: "InterManager members and their crews were happy to take part in this important survey. The amount of time seafarers report they are spending on administrative tasks is eye-opening and we welcome the report's suggestion for further investigation into how these requirements can be better complied with to enable smarter working."

Few things help an individual more than to place responsibility upon them and to let them know that you trust them.
Booker T. Washington

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