

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.



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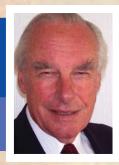
TRAIN, TRAIN, RETRAIN, RETAIN:





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Editorial

MMS 2013: The Dawn of a New Maritime Seascape

he Stamford Ballroom in Raffles City Convention Centre in Singapore was filled on 6 September with participants in the Maritime Manpower Singapore 2013 Conference, organised by the Singapore Maritime Officers Union, including a very welcome number of uniformed trainees.

This was a conference addressing Maritime Labour Convention issues on a tripartite partnership basis - with leaders in each of three key organisations – ILO, ITF and IMEC – expressing strong calls for the maritime transport industry to ensure the MLC is supported and the objectives of this new convention fully realised.

- Keynote Speaker Dr Cleopatra Doumbia-Henry, Director, International Labour Standards, International Labour Office spoke about implementing the MLC.
- General Secretary Simon Cotton of the International Transport Workers' Federation spoke about ITF policies in a New Maritime Landscape.
- Chief Executive Giles Heimann of the International Maritime Employers' Council spoke about the IMEC Collective Agreement and the Way Forward.

The general tone of the 15 presentations and three panel dialogues emphasised that no matter how advanced the technology, it is a human hand at the helm, a new level of quality seafarer is required and global shipping must be manned by skilled professionals. There is need for the industry to think 'outside the box' and make seafaring a more pleasant occupation. 'We' - as represented by the tripartite approach has never been as united as at present and the global bargaining body is a trail blazer. Now, as the fourth pillar - together with SOLAS, MARPOL and STCW - MLC is a major factor in ensuring quality ships and seafarers. It was heartening to listen to the positive approach.

While positive comment dominated the one day of very worthwhile discussion, concern was expressed about inconsistencies in MLC and the need for clarity of terms; eg of 'seafarer', 'ship', 'competent authority'. About the need to deal with widely differing interpretations. How effectively can the provisions of MLC be implemented with fatigued crews on tightly scheduled ships? And will MLC bring yet more paperwork? Also, the very nature of some sectors of the industry make it difficult to apply MLC provisions.

After listening to the presentations during the morning, the writer decided to put his prepared presentation to one side and instead used his 15 minute slot during the afternoon to address 'The Next Step: Establishing a Long Line of Skilled Officers from Asia Pacific, in which GlobalMET's approach to the proposed Asian Development Bank Project 'Human Resource Development in the Maritime Sector in Asia and the Pacific' was described and a call made for industry support. Subsequent comment was very encouraging.

Now there is need to ensure a convincing submission is on the table at a meeting with the ADB on 31 October – the day following the 14th Asia Pacific Manning & Training Conference – which advises in no uncertain terms what needs to be done to develop MET that meets the needs of maritime transport, now and into the foreseeable future. And in doing so, convinces the ADB to provide the financial resources to do so. We have a lot

Last, but definitely not least, it is very encouraging that half of the articles in this issue are voluntarily contributed by individual MET providers. Does this indicate that at last we are developing as a 'voice' for MET? Let's make that so - more contributions please - and heartfelt thanks to those already contributing.

> Rod Short **Executive Secretary**













The 4th Pillar



he "fourth pillar" of maritime regulation – the Maritime Labour Convention (MLC) – is now in place and along with high hopes for trouble-free implementation, will be soon making its mark. Will it really make a difference?

It is worth noting the level of consensus between the parties, which worked hard to modernise and rationalise the numerous International Labour Organization (ILO) ILO documents and produce a convention appropriate to 21st century shipping. It has arrived at its present stage with the enthusiastic assent of ship owners, governments and seafarers' organisations and, it has to be said, with a great deal of goodwill. It is global in scope and ambition and is designed to provide the "level playing field" in which all parts of the international shipping industry are able to operate and flourish.

It is also designed for uniformity of enforcement, so that the internationally trading merchant ship will not face different standards and ambiguous interpretations as it moves from port to port around the world. It has a clear reporting system to keep track of progress, something that is particularly important in the early years of implementation. Its authors would seem to have covered every eventuality and of course it is supported by BIMCO, whose practical members have contributed greatly to this.

But like the SOLAS, MARPOL and STCW conventions which have preceded it, the success of the MLC will depend heavily upon the sincerity and professionalism of both the regulators and those in the industry itself. It might be suggested that the "human element", in the shape of the MLC inspectors and indeed those being inspected, will be crucial if the new convention is to come up to its expectations.

It is clear that well-organised shipping companies, which have engaged with the processes in good time and whose processes are aligned with the convention, will have little to fear (as will those seafarers who work for them). All within this responsible and professional part of this industry will hope that the convention's impact will be positive in that it will force the less responsible and less professional elements to improve their ways, or leave the business.

It is idle to suppose that for all the high hopes, there are no worries about its implementation. There is concern about both sincerity and professionalism in those countries in which corruption is a fact of maritime life. There are worries about certificates being issued by corrupt or incompetent flag state authorities, and the possibility of inspection regimes in these places treating the MLC as just another source of income from visiting ships, with masters being harassed and ships being delayed.



There is some residual concern about some administrations "gold-plating" the convention's regulations or causing problems over their interpretation aboard special ships, or where the status of people aboard might appear ambiguous. There may be problems which will initially arise on account of the number of flag states which are still to ratify the MLC, but whose ships will, of course, be subject to inspection.

It is fair to say that the industry and the ILO have anticipated these issues, with its provisions for monitoring the convention and requirements for annual "audits" of its effectiveness. Those flag states which are experiencing problems do have the opportunity to solicit advice and technical assistance from the ILO.

But the MLC is in being and all sides are hoping that its introduction will be smooth and that it will really make a difference. Sincerity and professionalism are the keys to this desirable object.

Articles written by the Watchkeeper and other outside contributors do not necessarily reflect the views or policy of BIMCO.

Bimco.org

Maritime Operations in Arctic Ocean Region

Future Challenges and Opportunities

Ву

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Arctic Marine Geography

Our earth has two Polar Regions – Antarctica and the Arctic, each with a large marine environment, that are vital to the well being of the planet. Unlike Antactica, though, which is a continent surrounded by an Ocean, the Arctic is an Ocean surrounded by continents. The Arctic Ocean, at 14,056 million km², is the smallest of world's five oceans. It is mostly an enclosed sea that has limited exchange of deep water with other oceans.

When compared with Mediterranean Sea, the Arctic has a greater exchange of water, and it is more that 5.6 times larger. Consequently, the International Hydrographic Organization (IHO) with the International Maritime Organization (IMO) recognizes the Arctic Ocean as one of the five major components of the world ocean that covers almost 71% of the Earths' surface. More importantly, the Arctic Ocean is the least sampled of the worlds' oceans and many has areas remain where few, if any, soundings have been recorded.

The implications of this lack of marine information are profound for charting hydrography and basic Arctic Navigation.

Greenland Sea, Norwegian Sea, Barents Sea, White Sea, Kara Sea, Laptev Sea, East Siberian Sea and Chukchi Sea - all fronting on the Eurasia continental land mass. The Bering Sea, the Beaufort Sea,

the waters within the Canadian Archipelago including those of the Northwest Passage, Hudson Bay and Hudson Strait, Lincoln Sea, Baffin Bay, Davis Strait and Labrador Sea are all bordering on the North American continent. Most Arctic marine activity, such as fishing, offshore hydrocarbon development and ship transits takes place in these coastal seas.

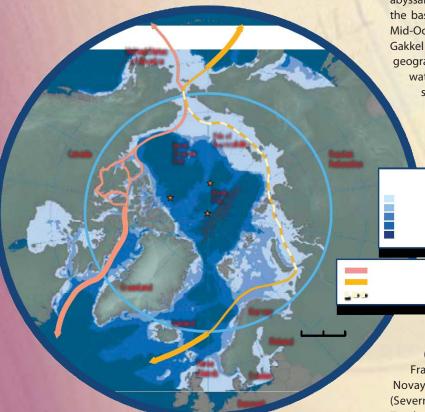
Bathymetrically, the Arctic marine area is relatively shallow (As shown in Map) with broad continental shelves. The shelf extends 100 to 200 kilometers from the United States and Canada and more than 1,000 kilometers in places extending north from the Russian Federation. Depths over the shelves average between 100 and 200 meters but are variable, especially as the continental landmasses and islands are approached. At the continental slopes, the break between the shelf and the deep ocean basin, depths are between 300 and 500 meters.

There are two major deep basins - the Eurasia and Amerasia separated by the Lomonosov Ridge stretching from the East Siberian Sea to the Lincoln Sea. The ridge is an underwater mountain chain rising, on average, 3,000 meters above the abyssal plain. On the Eurasian side of the Lomonosov Ridge, the basin is again split into two by the Nansen-Gakkel Arctic Mid-Ocean Ridge. Between the Lomonosov and Nansen-Gakkel Ridges lies the Pole Abyssal Plain in which is found the geographical North Pole at 90 degrees north. The depth of water at the pole is well over 4,000 meters. On the Amerasia side of the Lomonosov Ridge there are also two basins - the Makarov and Canada - separated by the Alpha and

Mendeleev ridges. Of the two basins, the Canada Basin is the largest.

Major islands and island archipelagos fringe the Arctic marine area and they help frame the marine routes, legal regimes and navigational options in the Arctic Ocean. The largest island is Greenland at 2,166,086 km². The largest archipelago is the Canadian Archipelago with more than 36,000 islands including Baffin (507,451 km²), Victoria (217,291 km²) and Ellesmere (196,236 km²), which are among the world's largest 10 islands. The next largest single island fringing on the Arctic marine area is Iceland (103,000 km²).

On the west, the Arctic Ocean is bounded by Svalbard (Norway) of which Spitsbergen is the largest island; Franz Josef Land (Russian Federation) with 191 islands; Novaya Zemlya (Russian Federation) with two major islands (Severny at 47,079 km² and Yuzhny at 33,246 km²); Severnaya Zemlya (Russian Federation) consisting of four major islands and 70 smaller ones; and New Siberian Islands (Russian Federation) with the Anzhu Islands and the Lyakhovskiye Islands. Between New Siberian Islands group and the Bering Strait lies Wrangel Islands group and the Bering Strait lies Wrangel Island (7300 m²).



The Arctic Marine Area (Source – AMSA)

The Arctic is bordered by numerous coastal seas, all of which are seasonally covered with sea ice. Working from Greenland eastwards, the waters adjacent to the Arctic basin itself are

Ocean	Size (million km²)	Percentage of Earth's Total Surface	Greatest Depth (m)	Average Depth (m)
Pacific	155.557	30.5	10,911	4,300
Atlantic	76.762	20.8	8,605	3,300
Indian	65.556	14.4	7,258	3,900
Southern (Antartic)	20.327	4.00	7,235	4,000 - 5,000
Arctic	14.056	2.80	5,160	1,050

Arctic Ocean compared to other oceans. [Source: AMSA]

Country	Closest Point to the North Pole	Distance to Pole (km)
Greenland (Denmark)	Kaffeklubben Island, Perry Land	707
Iceland	Kolbeinsey, Eyjafjorour	2552
Norway	Rossoya Sjuoyane, Svalbard	1024
Russian Federation	Cape Fligely, Rudolf Island, Franz Josef Land	911
USA	Point Barrow, Alaska	2078
Canada	Cape Columbia, Ellesmere Island	769

Distances from the nearest land of Arctic States to the North Pole. [Source: AMSA]

Given these fringing islands, the distance from the nearest land to the North Pole is as little as 707 kilometers (382 nautical miles), but this distance is different for each Arctic nation. Of interest to the Marine world is the approximate 2,100 nautical mile distance (direct) from the Bering Strait to the North Pole to Fram Strait (between Greenland and Svalbard). All other distances along the coastal routes within the Arctic basin are longer. Although technically not on the edge of the Arctic Ocean, the Aleutian Islands in the Pacific Ocean provide the southern

limit of the Bering Sea, which links through the Bering Strait into the Chukchi Sea and the Arctic Ocean. A global maritime trade route - the North Pacific's Great Circle Route - intersects with the Aleutian Islands and thousands of large ships pass north and south of these islands on voyages between the west coast of North America and Asian ports each year.

Part III of Jai Acharya's interesting article will be included in the next Newsletter.



Delegation, Trust, the Communication Revolution and the Education of the Seafarer

Ву

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Dr Chris Haughton in his article entitled 'Communication: Always a Power for Good?' asks if it is an undesired and unexpected consequence of the communication revolution, that the locus of decision making has shifted. I believe that it is not totally unexpected but definitely not very desired. With the passage of time, it would seem that seafarers are seen as a bunch of people incapable of making educated decisions. Could it also seem to some, that seafarers of today are not up to the mark as far as 'thinking critically' is concerned? Reports world over concerning education of youth seem to suggest so. Hence, decision making is left to people who have some paper qualification that indicates that the holder is one with superior thinking capacity. If this truly is their assumption, it is very degrading.

Education has now moved into a phase where technocrats have too much say. Psychologist have engaged themselves in education and have introduced measures that involve a lot of documentation but; it lacks substance. For example, documents such as the lesson plan, require the teacher to state how long he or she will dwell on a particular topic or sub topic. It is very robotic and it lacks the heart's touch. Why? Because it does not consider the different types of students that you will have in a class. The premise on which these documents are developed is that humans are nothing more than a 'response apparatus'. Nothing can be further from the truth. When humans are considered mere 'response apparatuses', it means that there are only a select few e.g. technocrats of education, the so called smarter ones in society, who will dictate what is to be learnt -'We will tell you what your reaction or response should be to a given scenario'. So then what happens is that individuals cannot or will not express themselves even if they have an inspiration that comes from outside of what is considered the normal sources of inspiration.

Why do we micromanage? Because there is no trust. Why is there no trust? Because Masters know that the junior officers of today have been exposed to the type of education mentioned above and the experience gained at sea prior to certification has not been sufficient. Quoting Dr.Chris:

"one example is how (some) navigating OOWs now automatically call the master if they see a light while they're on watch. You might expect this to have been in restricted waters, low visibility or tricky conditions. But alas, we're talking about routine, deep sea, clear weather and on first sighting".

We simply can't replace sea going experience with theoretical knowledge. Students are coming back to school from sea without properly learning and understanding why they do what they do. Are superintendents acutely aware of this, that micromanagement has become so necessary in every aspect of ship operations? I think they are! There is no other way to explain micromanagement. In my time at sea, checklists and procedure manuals were fewer. Why? Because we were tried & tested for a longer periods of time and not 1 year. The communication revolution is great but it should not be used to micromanage.

At the time of writing this article there was a debate raging in the U.S.A. about the decline of American education. If one were to properly research the cause of this, he will find that a lot of blame has been laid on Mastery Learning / Outcomes Based Education / Problems Based learning. The three of these are connected to one another. While it has been considered a failure in

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the U.S., many institutions world-wide are getting into this form of education before properly checking on its impact in countries that have already tried and failed using the system. Many educational institutions in countries such as South Africa & Australia have abandoned it. What these education systems have produced are the opposite to what they claim to want to produce – students who can 'think critically'. One other problem is that there is no room for revelation, innateness and character building. It does not recognise such vital elements and that is irresponsible. In some parts of the world, OBE is a tool for indoctrinating people with ideas that might be considered by some as questioning their moral principles.

The Training and Record Book (TARB) is comprehensive in terms of indicating what is to be learnt by cadets during their time on board. 20 to 30 years ago, with additional sea-time, many struggled to complete tasks in the training book but with painful experiences and strict supervision from officers, cadets manage to complete a majority of the tasks. What's changed now? With shorter time, increased paper work (a result of people in a state of paranoia), the periods available for the mentoring process has reduced drastically. We then end up with seafarers who are ill prepared to do the job.

When one can't trust another's ability, what he will do is harass the person by making multiple calls; and what the communication revolution has done is to make it simpler but more annoying.

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MOOCs

nline education has existed for a while now, but has really taken off in the past year. Massive Open Online Courses, or MOOCs, as they are referred to, have refueled an interest in higher education like never before, with some courses attracting hundreds of thousands of students of all ages from all over the world.

The term MOOC was first coined in the "Connectivism and Connective Knowledge" course offered by the University of Manitoba in 2008. It was taken by 25 students enrolled from within the University, and 2300 students from outside. That is a small number compared to today, as a single MOOC can have over 100,000 students. Just ask Dr. Sebastian Thrun, a Stanford Computer Science professor who taught "Introduction to Artificial Intelligence" in Fall 2011 with a class enrollment of over 160,000 from 190 countries. It led him to establish an online higher education company named Udacity in early 2012.

MOOCs are now offered by academic institutions or organizations working with universities, and provide the

convenience of a free, world class education in the privacy of one's home. They have already benefited a large number of people, including students who cannot afford to pay for higher education. They have also assisted working professionals who want to further their skills and enhance their resumes.

Udacity

Udacity is an educational organization founded in February 2012 by Sebastian Thrun, David Stavens, and Mike Sokolsky. As of July 2013, they offer 28 MOOCs in topics such as Computer Science, Mathematics, Business, Science and Design.

Check out some classes at: http://www.udacity.com

By Kannan Sankaran, Epoch Times



New & Free Bunkering Training Video Available

or the first time nearly 20 years, a new video on best practices for bunkering operations (the transfer of fuel to a vessel) has been released.

The 14-minute training video is the result of cooperative efforts from members of the Pacific States/British Columbia Oil Spill Task Force in conjunction with GlobalMET member Maritime Training Services in Seattle (www.maritimetraining.com).

The new bunkering video presents the steps of a safe oil transfer procedure, the components of a pre-loading plan and inspections, and includes interviews with government officials, tug and barge operators, and tanker men.

The full length video is free and can be downloaded here: http://www.oilspilltaskforce.org/bunker/index.htm

There are no restrictions on usage so you can upload it to a USB stick, company intranet, Learning Management System, or burn your own copies of the program.







World's Most Dangerous Cargo Eyed in Bulker Sinking Near Hong Kong

By Mike Schuler on August 16, 2013



he 190-meter bulk carrier which sank off the coast of Hong Kong during Typhoon Utor earlier this week has been reported to have been carrying nickel ore, widely regarded as the world's most dangerous cargo.

As we reported, the Hong Kongflagged Trans Summer sank Wednesday approximately 45 nautical mile southwest of the city after battling 15-meter waves and strong winds generated by Typhoon Utor. All 21 crewmembers were rescued mostly by helicopter after abandoning the heavily listing ship in liferafts. The Trans Summer

eventually rolled over completely and sank some time later.

The sinking of the Trans Summer is typical of a slew of recent casualties involving nickel ore shipments, only this time nobody was killed. That particular maritime activity – shipping nickel ore primarily from Indonesia to China – has quickly become one of the most dangerous jobs in the world and the deadliest activity in modern shipping.

The liquefaction of nickel ore cargoes has been cited as the cause of at least four vessel casualties and the loss of 66 seafarers from October 2010 to December of 2011. In all four incidents, it was determined that too much moisture transformed the otherwise sandy ore into an unstable, muddy substance that caused the ships to list and roll over.

THAILAND
BURMA

CAMBODIA

Earlier this year, the Harita Bauxite sank in similar fashion off Cape Balinao in the South China Sea while carrying 47,450 metric tons of nickel ore in her holds. Fifteen of her 24 were crewmembers were killed.

As a result, INTERCARGO, which represents the interests of more than 160 dry cargo ship owners and operators, has since named nickel ore "the world's most dangerous cargo" and efforts are underway at the IMO to strengthen the International Maritime Solid Bulk Code (IMSBC), which regulates the loading and transport of bulk cargoes.

China's official Xinhua News Agency said that the Trans Summer was carrying 57,000 tons of nickel ore when she sank, according to a report by the Associated Press.

Dr Swapan Das Sarma

wapan Das Sarma received his Ph.D. Degree from Chancellor Mitropoulos of AMET University during the last graduation convocation on September 4th at Chennai. The research named **Application of e-learning in maritime education and training (MET)** took Dr Sarma five years to complete under two research guides, Dr V Balasubramanian, the Dean of Research at AMET University and Dr Anush Ramachandran, CEO Agnite Education, from New York. The Thesis was reviewed and passed by 3 PhD examiners; Dr S Dasgupta, Director of Technical Higher Education, West Bengal; Capt Rodney F Short, ex-Principal, Australian Maritime College and the current Executive Secretary of the Global Maritime Education & Training Association (GlobalMET); and Dr M. Bina Celine Dorothy from School of Business Management at the AMET University.

Dr Sarma defended his research hypothesis that "e-learning will improve quality and reduce cost in MET" in a public viva chaired by the external examiner Dr K Duraipandian, Principal of Agarsen College, Chennai and impressed the forum with his findings and recommendations that would help implementation of e-learning in MET globally. The research

proposed the application of **CP-LTSP Model** as the way forward for the MET schools as a strategy for implementing e-learning. This was developed based on his field study of projects undertaken, stakeholder surveys and secondary data sources that highlighted the potholes to avoid and best practices to follow. This model suggests collaboration of MET with e-learning service providers toward sharing costs, capabilities and commercial benefits.

Known as the "father of e-learning in MET", Dr Sarma has spent a decade in developing online learning, mostly in collaboration with prominent MET institutions worldwide; a graduate of MERI (1968), an M.B.A. from Warwick U (1995), a sea career as Chief Engineer on Motor and Steam ships, a long stretch as maritime teacher, 10 years at the helm of Singapore Maritime Academy (SMA) as its Director and a founding director of GlobalMET Ltd, this research is yet another example of his leadership and dedication to the profession.

At 65, he says, there is more to come!



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

Booker T. Washington

Maritime Education & Training in the Virtual World: Vision Quest 22nd Century

by

William E. Hamilton @ Iman Figrie

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Figure 1 below is a picture of the turbulent rapids in Niagara Falls, NY, USA, where I grew up and symbolizes beauty, power and change. Most people don't seem to like change. I suppose even when one of the greatest inventions there ever was came along- the wheel - there were those who opposed it and change; I also suppose it was so when old ships of sail transitioned to mechanical power; and so it has been said before, the only sure thing – is change itself.

The maritime sector today sits again at an important historical crossroads involving change, technology and safety. According to Tanker Shipping & Trade (2013), "The next 10 years will see more changes than the past several decades combined... In the process we must not lose focus on operational issues or crewing... the need to react to an unprecedented combination of low freight rates, stringent environmental legislation and soaring operational costs is driving innovation and invention..." (1).

Around ninety per cent of international world trade is carried by the international shipping industry and as of October 2010, "...the world fleet was made up of 50,054 ships" (2). And, according to the same source, "In 2008, ...it



was estimated that the industry transported over 7.7 thousand million tonnes of cargo, equivalent to a total volume of world trade by sea of over 32 thousand billion tonne-miles." (2). In May 2011, then Secretary-General, Mr. Mitropulos, stated, "...that although the economic outlook for shipping may, in the prevailing circumstances, be uncertain, the march towards technology seems inexorable... kites and delta wings harness the wind in a modern day nod to a bygone era; the use of liquefied natural gas as a fuel... one company is reported to be taking delivery of two LNG-powered ro-ro cargo vessels later this year... air lubrication aimed at reducing the friction between hull and sea water to reduce fuel consumption... on the bridge integrated systems... have become the norm..." (3).

It is in this light of change, more and more complex shipping and increasingly new technology, that the call for going beyond just compliance with safety and a call for more visionary distance



Figure 1 - Turbulent Rapids, Niagara Falls, NY, USA, Copyright by Digital Eye, LLC

learning strategies for seafarers have been echoed. Going further—an effective global maritime competency management system (CMS) that ensures when a Certificate of Competency (COC) is issued in one country—there's full confidence it's good world-wide, is also something sorely needed.

Today, one can see future systems in figure 2a and 2b, like "Ulstein Bridge Vision, whose operation is based on intuitive touch commands and gestures...offers the user a focused bridge window, a system that automatically adapts to the individual user's preferred setup..." (4).

shown that relentless focus on 'what's wrong' is not sustainable, invokes blame and creates fatigue and resistance... instead discovering the best of what is... imagining what might be... talking about what should be... and creating what will be" is what is needed (5).

It seems technology always leads real change by years—even decades; however, with the kind of leap ahead technology and myriad of virtual systems available for learning, operations, and 3D virtual environments—distance learning and virtual environment efforts encompassing e-learning and m-learning



Figure 2a - Front bridge view. Copyright by AHO ULSTEIN GROUP



Figure 2b - Aft bridge view. Copyright by AHO ULSTEIN GROUP

The training of the future must also be bold, visionary and forward thinking. Institutions are already experimenting and implementing virtual systems—albeit slowly and cautiously. Bold and decisive action acquiring a global CMS means more than just changing the way we think, but also our behaviour and attitude. We cannot be literally stuck in the past, this will not stand. We must get out of our "comfort zone"!

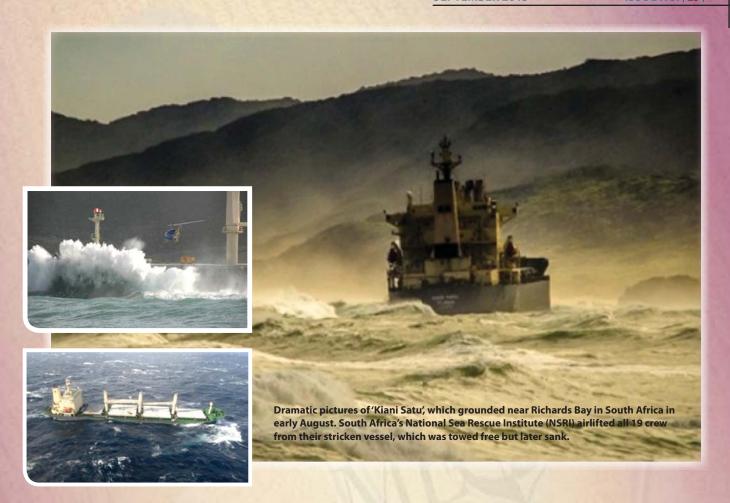
In the article, "The Inconvenient Truth About Change Management", the author suggested that "Research has

can help bolster maritime education and training and facilitate revolutionizing the maritime industry in ways never before imagined. But there must be forged partnerships, funding, common goals, visions and a commitment to the hard work ahead in meeting the challenges of a global maritime environment of inexorable technological changes.

Lastly, acquiring and utilizing such high-tech systems are just the kind of edge needed in MET and the maritime industry to help transform shipping towards the 22nd Century!

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