

The MET Network with NGO Observer Status at IMO

GlobalMET NEWSLETTER



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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Articles written on behalf of GlobalMET and by other outside contributors do not necessarily reflect the views or policies of GlobalMET

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Editorial

also be forward leaning towards MET's mission to promote, develop and support ... the common interests... in all matters concerning the development and quality of maritime education and training!

As we begin the new year, let us give recognition for what we have already accomplished; climate change and the environment have been prevalent topics in 2014 and for good reason will continue to be—noting of course Mr. Jai Acharya's tireless work on the Polar Regions, much appreciated; women's issues and concerns in maritime education and training were also discussed in 2014 and will continue to be important in 2015; the work on e-learning has also been more than noteworthy and much needed; as well, there have been articles on labor conventions and concerns, port state control, morals and ethics; and many applications and topics on learning in MET by the distinguished Capt Teo, Dr. Haughton and a few others;

There have also been many topics regarding the Engine Room that needed saying and our very own Engineer, Mr. Mahendra Singh, normally tells it to us straight! Other topics included automation and crewless ships to reviewing important competencies in MET and inspirational visits which took us all around the world and to a number of institutions!

Special mention to GMET Executive Secretary, Capt Short! His tireless dedication and exemplary professionalism were in keeping with the highest traditions of MET, merchant seaman and global citizenship—it's been an honor and privilege to continue to have him at the helm!

Sadly, 2014 has been not been without its tragedies; 304 passengers died after South Korean, MV Sewol capsized; 8 missing after cargo vessel capsizes off the North coast of Scotland; a car transport runs aground off England; 18 missing after a ferry boat catches fire; major oil spill after collision between a tanker and bulk carrier; 2 dead and 4 missing after a another collision; a number of lifeboat tragedies and unsaid other calamities—many lives continue to be lost at sea and committed to the deep! These somber and fitting words from a U.S. Navy hymn below pays homage to those lost at sea. Their sacrifice reminds us just how precious and fleeting life really is—please take a moment to reflect on these words [abridged version, for full lyrics see <http://www.scoutsongs.com/lyrics/thenavyhymn.html>], see also a short rendition of the hymn done properly in this youtube video by The U.S. Navy Band, well worth your time <https://www.youtube.com/watch?v=ic8zMKYwnq8>

Eternal Father: The Navy Hymn **Lyrics by Reverend William Whiting and Music by Reverend John B. Dyke**

Eternal Father, strong to save,
Whose arm hath bound the restless wave,
Who bidd'st the mighty ocean deep,
Its own appointed limits keep.

Oh hear us when we cry to Thee,
For those in peril on the sea! Amen...

Now, realizing that 2015 brings with it many new challenges and a renewed commitment to not only accomplish the goals aspired by the GlobalMET mantra of train, train, retrain and retain; strike The new newsletter cover and facelift is in keeping with these high ideas; Its fresh new look of blue, white and red themes echoes both the calm and turbulent blue nature of the sea present in maritime as well as the safe, pure and bright future white holds; and lastly, indeed red portrays the energy, excitement and promise that this future brings to maritime education and training and those would be mariners who would sail her oceans blue!

The articles in this issue continue to light the way as well as does the debut of the new GlobalMET Blog, <http://globalmetblog.imanfiqrie.com>; forging cooperation and bringing us all into an arena where we can share, cooperate and promote MET common interests not only once a month when the newsletter comes out but express our ongoing concerns between newsletters as well as respond to them anywhere, anytime! This is how it is done, one deed at a time!

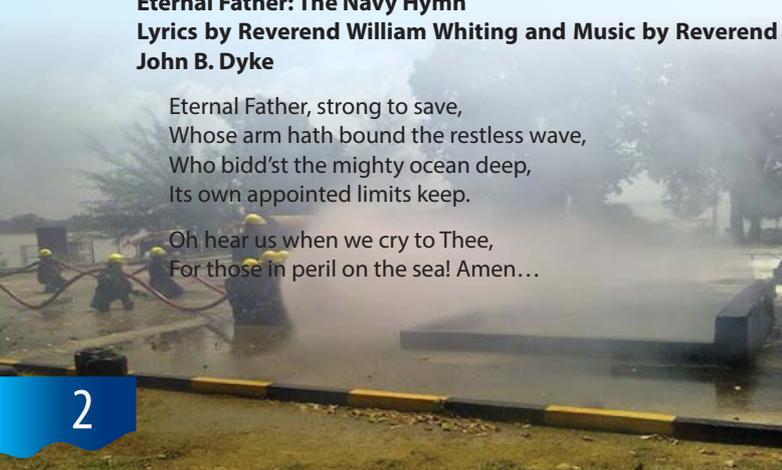
This month's articles find information on the up and coming 2015 BIMCO/ICS Manpower Report, good historical information on what the report is and how to assist in 2015; on Toxic Masters, who's ever been afraid to call the Captain for fear of reprisal? You'll want to read this article!; a good review by Capt Short on the book, *A Mariner's Guide to Preventing Collisions* is included; an article on the most important letter in the alphabet (hint: "I" for Integrity, Intervention, Innovation, etc.); an excellent article and "Call to Action" on Climate Change; and more information, principals and great tips on watch keeping from "the Engineer."

And lastly, we congratulate Maritime Training Institute, Karachi-Pakistan and Magsaysay Maritime Corporation (MMC) for receiving Lloyd's List "HIGHLY COMMENDED TRAINING AWARD"; and finally, we are very pleased to announce Dr. Chris Haughton has agreed to his appointment to join GlobalMET's Advisory Panel!

...fair winds and following seas!

For the Executive Secretary,

By Iman Fiqrie Bin Muhammad (LCDR, USN ret)
Lecturer, Malaysian Maritime Academy



A Call to Action: Concerning the IPCC 40th Session and 5th Assessment Report



Clean waters and sky of the Malacca Straits near Malaysian Maritime Academy, photo by Iman Fiqrie

Last month's highlight was on the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (AR5 IPCC) held 27-31 October, in Denmark. The report reiterated in a non-alarmist manner, but non-the-less important manner that, "Human interference with the climate system is occurring, and climate change poses risks for human and natural systems..." and by the year 2030, food yield projections are predicted to be 30% less than current levels while the percentage range decrease in food production will widen by more than 20%; food shortages and increased population will most certainly, according to the AR5 Assessment Report cause increased poverty at numbers yet before seen and subsequent displacement of global populations. However, according to yet another source, food projections and impact doesn't quite have the meaning one might expect—e.g., while more than 27 countries may experience under nourishment or decrease of 5% calories/day/capita (< 2500 cal/day), other more developed countries may see nil effect in their consumption patterns and per capita nourishment at over 2700 calories/day/capita, (Alexandratos and Bruinsma, 22). As far as population, according to a 2012 Revised UN World Population Report to 2300, "... the world population of 7.2 billion in-2013 is projected to increase by almost one billion people within the next twelve years, reaching 8.1 billion in 2025, and to further increase to 9.6 billion by 2050 and 10.9 billion by 2100" (UN 2012).

To sum it up, the Biosphere (Earth)—Ocean and Terra (land) temperatures has reached unprecedented levels; the highest recorded percentage changes occurring in recent times, thus the melting of glacial ice packs will inevitably help ensue coastal flooding on the order unimaginable further adding to global displacement, water shortages and poverty. If that isn't a 2015 wake up call, read the full report! Again, the IPCC tries not to use alarmist language but the data suggests a serious picture! A picture is worth a thousand words!

I hope this gets the attention and urgency of action as intended as it's about time we all just "rolled up our sleeves," developed local action plans and really try and turn this rather grim Climate Change (CC) picture around and into something more positive; e.g., a legacy for our children and children's children! Sorry to say, however, that many of us from the older generations have been at the forefront as contributors (the so called human intervention as polluters) to CC-- the sad part is that even now we still seem not to give it a second thought about our impact on the Biosphere, as far as any real action is concerned! What's even more unsettling is the seemingly complacent demeanor that the younger generation seems to have towards CC! They need more than a wakeup call to put a halt to their apparent obliviousness on this issue, themselves formulate an action plan and demand action from their leaders; become more actively involved in their own future, destiny and well-being!

Ok, off the "soap-box "; if one needs more convincing, one need only look through less than 10% of the data to come to many of the same conclusions. However, I prefer to spend the rest of this article setting the moral imperative for change and suggest a few solutions thereafter! On the former, morals are amusing things as they are totally dependent on the individuals involved; their education, upbringing, background and environment, etc.; and as yet, there isn't just one global morality clause with reference to CC; but, for starters—how about the following:

According to M. Kamal Hassan in, *World -View Orientation and Ethics: A Muslim Perspective*:

Hassan suggests, "It is my humble submission that at the root of our contemporary ecological crisis lies the mindset which disregards the lordship, sovereignty, power, control and will of God in the universe. Thus man's self-perception is that he is freed from any transcendent authority or higher moral order to behave, vis-a-vis, the natural resources or to his fellow human beings in a utilitarian and selfish manner... as nations realize a common peril in allowing environmental degradation to continue in part of the globe, do they also become conscious of the fact that they are existing on God's earth and are thriving on God's given bounties (normally called natural resources) in the land, air and water... [and] have become [non-remorseful] on account of greedy, materialistic and self-centered behavior..." (1-2). A little hard to hear, but that's what morals are – a kind of a standard or benchmark for human behavior and God knows we could use some standard—right?

So what can we do about it? Design an action plan or "Sustainability Blue Book"/goal book around which the following sustainable environmental principles and framework is put forth:

A Framework of Principles for a Sustainable Environment

- *Design is the 1st sign of intention ~ don't build it without first knowing one's intention and it's impact!(idea from Oprah Winfrey, intention and impact)
- *Leadership; all hands on deck ~ if you're not part of the solution, you're part of the problem!
- *Mass utilization ~ by giving and sharing we actually receive more; blessings, belonging, health, etc.!
- *Renewable infrastructures ~ again stressing intention, designed to get us in the right mindset, on track in a timely manner and with deliverables.
- *Diversified transport systems ~ helps to reduce our carbon footprint and consumption on the Biosphere; consumption now stands at over 1.5 Biospheres! That's right!
- *Buildings shall be energy efficient! ~ "it's time to build better," reduce our global footprint
- *Water needs to be clean! ~ we depend on clean water for health, be proactive keeping it that way!
- *Consider the welfare of all life ~ respect other people and natural resources!
- *Social justice for all~ the have not's should not get the "short end of the stick" or Biosphere!
- *Follow nature's operating instructions ~ concept for thinking about renewable infrastructures
- *Waste free industrial systems ~ being a Developed Nation doesn't have to mean having the biggest footprint as polluters!
- *Get involved! ~ In a big or small way, be Biosphere and Climate Change Active (BACCA), new term!
- *Design capacity to sustain! ~ a blueprint and principal ensuring a sustainable and healthy future.
- *Recycle ~ maybe our one manageable part can be BACCA in recycling?
- *Population controls ~ near or better than 1% and double digit growth per annum, these numbers are unsustainable and detrimental to world peace, security and stability!

This about ends this article, but hopefully not our mission for a sustainable and healthy Biosphere and future. For sure 2015 is our responsible call to action or BACCA. Let's take on a few of these issues and talk about it some more on the new GlobalMET Blog, see you there!

Alexandratos, N. and J. Bruinsma. 2012. World agriculture towards 2030/2050: the 2012 revision. ESA Working paper No. 12-03. Rome, FAO.

M. Kamal Hassan's, *World -View Orientation and Ethics: A Muslim Perspective*, Jurnal IKIM (Institute of Islamic Understanding Malaysia), Vol. 3. No. 1. Jan/June 1995.

World Population Report to 2300. Department of Economic and Social Affairs, 2012. Web. 6 Dec. 2015.

By **Iman Fiqrie Bin Muhammad** (LCDR, USN ret)
Lecturer, Malaysian Maritime Academy



Toxic Masters and the Bully on the Bridge

A member of MAC's LinkedIn maritime accident investigation group provided this account of a close call:

"...we were passing Manila and second mate calls me just after midnight to the bridge were I was informed a vessel was overtaking us but CPA was 0.0 using AIS. We identified the ship and called asking what their intention was. The mate on the overtaking ship advised us that he had strict instructions not to deviate from RED line. When I asked him if he was aware that we will collide in 15 minutes he reiterated that he must stay on the red line and the captain does not like being called to the bridge after midnight. I asked him if he was aware of his obligations under COLREGS as an overtaking vessel. He recited them verbatim but was still not prepared to deviate from the RED line

The vessel in question was a tanker and I am sure this is not an isolated case. MAC enquired further, with the following response: "I remember the conversation clearly. He made a decision to alter course by 2 degrees, I informed him his action will delay the collision by 5 min and unless he alters course by at least 15 degrees until clear, I would make sure the (certification) authorities are made aware of his actions and the masters standing orders. He made the alteration and then preceded to cut across my bow to get back to the red line I assume."

Basically, the chief officer was more afraid of upsetting his vessel's master than he was of a catastrophic collision. When a subordinate is so obedient he'd prefer to be obedient and knowingly risk the vessel and crew than question orders that endanger the ship that's a case of toxic leadership.

One often thinks of 'poor leadership' as weak, ineffectual leadership, a master who does not keep his crew in line, for example. Toxic leadership is, in many ways worse because the toxic masters appear to be, well, masterful, in charge, at least to those that hire them. Toxic leadership is a poison that hides itself in expectations.

Such was the case with the fire, explosion, sinking and loss of life of the Bow Mariner, the subject of this week's podcast.

IMO's model course on leadership and teamwork says: "(toxic leaders) abuse the leader-follower relationship".

Common traits of toxic leadership are:

- ◆ Glibness/superficial charm
- ◆ Grandiose sense of self-worth
- ◆ Pathological lying
- ◆ Cunning/manipulative
- ◆ Lack of remorse or guilt
- ◆ Callous/lack of empathy
- ◆ Shallow emotional affect (genuine emotion is short-lived and egocentric)
- ◆ Failure to accept responsibility for own actions.
- ◆ Many are authoritarian (control freaks) tending to use micro-management, over-management and management by fear.
- ◆ Micromanagers usually dislike a subordinate making decisions without consulting them, regardless of the level of authority or factual correctness.



"A toxic leader can be hypercritical of others in trying to hide their own faults. They can also be both frightening and psychologically stressful to work with."

Toxic masters bully and brag while demolishing team coherence and initiative.

Consider this: "the master was a man with authority and a commanding presence who, on at least two occasions, called someone on the bridge an idiot. Consciously or unconsciously, the Italian master with his authority did obviously not take in the information and knowledge from his officers about the equipment on the bridge."

That was not the master of the Costa Concordia, it was the master of the Maria M.

Toxic leaders are often admired. Capt Fredrik Van Wijnen, the general secretary of the Confederation of European Shipmasters' Associations says of the master of Costa Concordia: "The biggest problem is not his seamanship, it's his personality. He has come over as a bit of a playboy and a joker. He's not. He's a very capable seafarer".

Toxic masters are a personality problem, one that seems largely unaddressed within the industry. When an instructor at a maritime training facility asked a master what he would do if a junior officer challenged a he decision the response was "That would be the last time he'd be on my bridge".

There are a lot of toxic masters out there and they poison every bridge they stand on.

By **Bob Couttie**

BIMCO/ICS Manpower Report 2015



In 1990 the first Manpower Report produced by BIMCO and ISF was published. It was the first ever attempt to quantify the number of seafarers available to man the world merchant fleet and to compare that to the number actually needed to operate the fleet safely. Since then updated Manpower Reports have been published every five years, and the sixth such report is now under preparation for publication in November 2015.

Estimating the current number of seafarers in each country around the world and estimating the number of seafarers needed by the ships in each flag state is not a precise science. Many, if not most, countries do not know precisely how many of their nationals are seafarers. Most flag states do not know how many seafarers serve on their ships. Answers to key questions, such as how the number of new seafarers entering the industry compares to the number who leave for whatever reasons, remain uncertain.

Estimating how many seafarers will be needed to meet the demands of the world fleet in ten years time, as these Reports aim to do, raises even more uncertainties. Economic and political turmoil in certain parts of the world and technical and regulatory developments which could affect manning requirements add to the complexity.

But despite the obvious limitations of the statistics the Reports are a hugely valuable and highly respected “health check” on the industry’s manpower situation. And there is evidence to suggest that industry has responded in the past to concerns raised by BIMCO/ICS in these Reports. For example, trainee recruitment levels have increased immediately after publication of several of the Reports when they indicated that recruitment and training levels were far below those needed to sustain adequate manning for the world fleet.

As in the past, the 2015 research will involve detailed questionnaires being sent to shipping employers, government maritime departments and “crewing experts” respectively. They will ask for various information such as how many seafarers are employed, their nationalities, ranks and ratings, STCW certification, age profiles and so on.

But while the 2015 Report will continue to put the main focus on quantitative data on seafarer supply and demand, for the first

time it will also aim to obtain more qualitative data about the seafaring community. In particular, social media sites will be used to seek the opinions of several specific target groups in the industry who are likely to experience the effect of crew shortages or surpluses at the sharp end. The first such questionnaire, targeted at seafarers, has already been posted on the project website (at www.maritimemanpower.com).

The next of these questionnaires will target MET lecturers and institutions, it will be posted on the website during January 2015 and advice will be circulated to all interested parties once it has been posted. The easy-to-complete questionnaire, limited to a maximum of twelve questions taking five minutes or so to complete, will seek your views on issues such as:

- ◆ whether MET institutions receive enough help or encouragement from other industry bodies
- ◆ problems and benefits of the present STCW regime
- ◆ use of new training techniques and technology, and
- ◆ whether the numbers of new recruits in your country are sufficient to meet demand

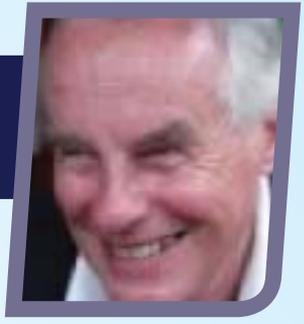
The principal objective of seeking the views of a wider group of industry professionals for the 2015 Manpower Report is to stimulate informed debate about some of the key issues that lie behind the raw statistics, and MET is a fertile ground for such debates. What are the most important issues influencing the ability to train adequate numbers of young people to become competent seafarers: not enough trainees, inadequate facilities, faculty or funding, poor government support, basic faults in the STCW Convention? These questions are where BIMCO and ICS need the help and advice of GlobalMet members and other experts, so use the questionnaire to tell us what you think.

For more information, general comments or questions about the research you can contact me: by email at david@maritimemanpower.com or through the website at www.maritimemanpower.com.

By David Dearsley



A Mariner's Guide to Preventing Collisions



This book is a major effort by a man who clearly has the expertise to make a valuable contribution to the safety of life and property at sea.

Capt Chhabra's book covers the Collision Regulations in 225 pages, then goes on to cover the IALA Buoyage System, Basic Ship Handling – for Preventing Risk of Collision, a Trend Analysis of Maritime Collisions, Leadership and Management in Preventing Collisions, and the STCW Regulation Code A-VIII/2. He concludes with 43 pages of Self Assessment Tests and Answers and then the Bahamas Maritime Authority Bulletin on The Use of ARPA for Collision Avoidance, then provides the Marshall Island Marine Safety Notice on Radar for Collision Avoidance, the Singapore MPA Shipping Circular on Caution on the Use of Radar in Collision Avoidance, and pictures of well-known accidents.

First published in May 2011, it was revised in August 2012. Primarily designed for study, the book uses distance learning methodologies to help achieve a fuller understanding of a subject which is often difficult. More mature level study has been placed in boxes, so that they may be skipped until adequate sea experience is gained.

Students tend to learn the COLREG by rote and then have difficulty in their application when on the bridge. The regulations are at times contentious and the watchkeepers on ships at risk of colliding

with one another may have different understandings of what is required. The author has attempted to provide a full explanation for practical application.

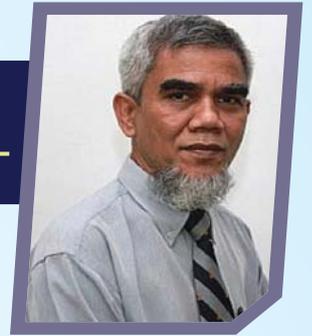
As Capt Chhabra says, 'the learning involves tasks, analysis of several cases amalgamated with watch-keeping requirements from STCW and SOLAS conventions, quiz and self assessments, linked to basic ship handling principles' to assist clarification of core concepts and fundamentals.

In writing this book Capt Chhabra has undertaken a large and difficult task and is to be congratulated on the outcome. He has made a significant contribution to assisting the watch-keeper develop an essential understanding of the collision regulations.

By **Rod Short**
Executive Secretary



“I” is the Most Important Letter in the Alphabet



Be you ever so high the law is above you – Lord Denning

Removing the mask

Integrity comes from the heart, you cannot fake it. It is not so much on how you view yourself, but more on how others view you. More often than not, you are being judged on a daily basis on this aspect. Do you subscribe to the high moral ground? If not, it is just a matter of time before subordinates discover your true colours! Years of investment in building a great team can be shattered in minutes once people discover that you have violated your own values. Once broken, the trust can never really be regained!

In the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, there's a lot of mention about watertight integrity as follows; integrity of sensors, hull and structural and emergency and distress alerting systems.

There is no mention at all about the integrity of a person in the STCW! It is also almost impossible to find this term in any SMS procedures for people. The other side of the same coin is interest, which comes from the head, and so could be personal or perceived as protecting the organisation's interest.

Some point out that the physical distance or gap between the brain and the heart is only one foot, and yet this seems the greatest distance or main source of mankind's miseries-- a "bridge too far" between the heart and mind! Bottom line, many do not do as they preach or walk the talk! This can lead to failed customer expectations and empty promises. Procedures are in place to meet legal policy obligations but not so much daily operations.

Implementing the three “Is”

More rules do not make the world safer, implementation does! Rules are, however, a necessary first step, but we need a system whereby all rules are being enforced at all times; rules help ensure fair play, a level playing field and mainly ensures long term stability and sustainability.

In a mature society, people generally accept implementation systems as an integral and important aspect of daily activities. It is acceptable for people to raise the “red-flag” or take action anytime they see an infraction or violation of rules and regulations; who is enforcing policy in your organisation?

Intervention

Intervention is necessary if we fail the first step of setting rules and implementing them, else we will be doing “fire-fighting” on a regular basis; It is a sign of danger for an organisation if it spends most of its time fighting fires. A lot of effort and energy is wasted unnecessarily. Usually parties will be at odds with each another leading to unnecessary confrontations. And finally, fighting your case in court may be the final stage of a system of poor rules (policy), implementation and intervention!

Innovation

Since much of our focus has been on intervention and getting it right in order to minimise damage, there is not much room left for innovation. Kodak was a good example of an organisation that failed to innovate and seemed to disappear from the market as a consequence.

We need to get the first step right before we are able to venture into the unknown and uncharted territory of innovation; fear is a major hindrance towards innovation.

Only those companies with sound business fundamentals and strategies will be able to embrace innovation and leverage a sound marketing strategy.

We need to be sincere in questioning all the company's practices before we can innovate and improve on the processes.

Incentives for integrity

And finally, unfortunately the shipping industry will most likely see more “Sewol-type” of disasters if there are no major incentives to ensure integrity of both systems and people! Sadly however, seems most people do not want to be seen as “rocking the boat.”

Cover-ups, making false entries in the log-book, destroying evidence, denial and misleading statements are all acts to deceive the authorities or to hide and conceal the truth. People lie because they do not expect to be caught!

Maritime academies seem to be the best place to inculcate and instil integrity into our seafarers, especially amongst the younger generations. Integrity must be the corner-stone of an academy. The very foundation of all great institutions in the world is integrity.

As one solution then, The primary focus and concentration where integrity should be considered is:

- ◆ International Safety Management (ISM) Code
- ◆ International Ship and Port Facility Security (ISPS) Code

We need to stress the importance of complying with mandatory rules and regulations related to the safe operation of ships and protection of the environment- but also on enforcement! Daily activities on a maritime campus are geared towards inculcating habits of compliance amongst students. All the tasks performed on campus should reflect the real environment at sea.

Classroom hours constitute less than 20% of the total time spent on campus. Maritime academies need to have a robust security system in ensuring that the minds do not wander aimlessly in the remaining 80% of the idle time. Productive time spent on campus will reflect well when students go to sea for their shipboard training.

Security is a mindset issue. Students will not be able to adapt to sea-life if they are so use to a laissez-faire attitude with regards to security aspects on campus.

The safety and security codes should be the primary focus of the maritime syllabus. Seafarers should be trained and take pride in safety and security early in their formative years. It is only possible if integrity is blended in their daily life on campus. Integrity is about being honest and upright, so what they see is very Important! Otherwise all the trainings on campus is just for the sake of passing the examinations or an eyewash exercise-- a charade.

How then do we assess integrity? Do we apply “once caught out you go” policy? Usually we deduct 50% of the mark for the question for principle error; do we subscribe to this practise?

We need to introduce some incentives for integrity for it to be taken seriously by all. Integrity is the main part of affective domain.

It is the missing-link in creating a clean, safe and secure environment at sea. We need to seriously consider it in the next STCW revision. “I” is indeed the most important letter in the alphabet.

By **Capt M H Hamzah**, Senior Lecturer,
Advanced Nautical Studies Dept, Malaysian Maritime Academy

Edited by Iman Fiqrie

Engine Room Watchkeeping



Main Engine

Read the chart where normal and alarm limits of CW (HT and LT), LO, FO etc are given and follow them. If you are going towards a hot climate area, make sure that the auxiliary steam condenser is clean, otherwise you cannot cope with the boiler Pr; (more so, if your bunker tanks are not full. Here also max temp 45 DegC).

Clean under piston spaces, drain pipes and economizer. Water wash at least one time in 1000 RH. Be careful of boiler pressure rise after 'Full Away' because after cleaning, economizer pressure will rise rapidly. On new ships you have a dumping valve working on auto, but even then, be watchful.

Main engine and economizer operations are interconnected. Soot blow the exhaust gas economizer at least three times daily.

Pay attention to fuel pumps. Overhaul them as per maker instructions and if lubrication is provided for harbour maneuvering, surely use it. On some makes of M/E fuel pumps, the overhauling period may have to be reduced from 8000Hr to 5000 Hr. Keep the fuel filters clean and fuel injectors well overhauled. For fuel injector nozzles, it is better to send for reconditioning ashore. Regularly ease and grease the fuel linkages.

If your engine is having chain drive, check the chain for abnormal slackness (by hand), because it may effect starting of the engine and also may result in a broken chain.

Always blow through the engine before starting and check if anything is coming out of the indicator cocks. Periodically, overhaul pneumatic valves in starting/reversing system and keep the air free from moisture (please check surely from air bottle to starting air stop valve). If the weather is bad and load is more, reduce RPM because you will burn more fuel and will not get equivalent output in terms of distance over ground. Similarly if pitching too much, check if you have enough ballast in afterpeak tank and reduce RPM to prevent overspeeding.

You must always familiarise the manual starting of the main engine, called emergency maneuvering. Always keep one more engineer or electrician in ECR when making or leaving port, at least till congested area is cleared.

Air starting valves are important. We should overhaul them and fit them carefully and, during maneuvering, measure the starting air pipe temperature using a FLUKE gun or the tape to check if one is much hotter than others. After under piston scavenge space cleaning, check the piston ring gaps and also piston top as much as possible. Check that flaps are not jammed and their hinges not broken. While running the main engine on low load (60%) check that auxiliary blowers are not cutting in or cutting out too frequently otherwise they may be overheated and their starter contacts may also burn. Increase RPM a little bit so that scavenge pressure goes beyond cut in range.

Keep a good check on main engine lub oil and camshaft lub oil so that there are no impurities. From the manual check, for maximum acceptable water content, etc. Conduct on board tests besides sending to the laboratory every three months. Keep exhaust gas pyrometer in good maintenance condition and temperature sensor cables in good condition (not cut) or

terminals loose, otherwise alarm for exhaust gas temp deviation will come and consequent slowdown. Familiarize with bypass switch to keep maneuvering in congested waters but keep good check on local pyrometers. Check if the PCB is not faulty. Keep some spare PCBs.

On some exhaust valve (UEC) makes there is an orifice on top of the exhaust valve which you will need to clean if the exhaust valve starts making noise. When the ship is in port, check cylinder head cooling, water connections and vent cock to ensure they are not getting loose. Similarly check fuel pipes from fuel pump to injector, especially vertical portion which is normally covered (and hence gets unnoticed).

Do not tighten fuel pipes when the engine is running. Do not try to supplement M/E T/C oil when the engine is running. Check the vent line from cylinder head top to expansion tank and send expansion tank water for analysis once in six months. Keep an eye on expansion tank (how much make up water is needed every day). Keep ph of JCW about eight. Also trace steam tracing lines because these will be needed in cold regions.

Study the cylinder lubrication system on your ship and what to do if it is not functioning correctly, lubrication as per load change, broken glass, quill malfunction. Most of the makers are giving maintenance CDs and we should copy them on our laptops and read in free time and discuss with the like minded.

Generators

Generators are the heart of the ship. All three must be in good condition. Do not leave them in charge of an engineer (2nd or 3rd) - everybody should be involved.

Pay attention to governor and fuel linkages for proper lubrication and no looseness. Governor oil should be clean. When carrying out crank case inspection, check the flyweight bolts also. Keep generator lub oil in good condition by onboard tests. Check if rocker arm lubrication is proper. Always perform cylinder head overhauling as per manual and check valve guides also. Avoid running on low load if operating with HFO. Better to keep one governor motor as spare because it is difficult to get in time, similarly some important PCB and relays.

Pay attention to generator turbocharger operation including water washing (if applicable).

Always keep a few fuel high pressure pipes as spare because these cannot be repaired. In case of leak from these pipes, an alarm is provided. Check it and keep it operational.

Generator overhauling is more tedious than the main engine. You need to take care of small parts and small clearances. Develop the habit of reading the manual and discuss among yourselves. Give importance to attached pumps like fresh water pump. Turn by hand, make air run and then start on fuel. By doing it this way, condition of bearings will be good. During hand turning, LO wing pump to develop about 0.5Kg of pressure. On modern engines we have priming pumps and these must be kept in good operational condition. Do not forget to clean the flowmeter filter and diesel oil filter after the service tank.

In very cold climates you may have difficulty in starting the generator so do not keep all engine room blowers running in port. Keep only 2 running. If any steam radiator type heater is provided for the space, keep it on to improve ambient temperature. This is true especially for older vessels.

Keep fuel oil viscosity under control both for main engine and also for generators. Once in a while check crankcase temperatures using FLUKE gun. With the use and after 10 years the turbocharger casing gets corroded. Cleaning and gauging (may be ultrasonic) is desirable. It is prudent to keep one casing as spare (even if second hand but not leaking). That is why maintenance of cooling water quality is important and also keeping the cooling water temperatures within limits.

Incidentally, it is to be remembered that in generator overhauling, fitment of bottom end bearing is very important. Keep torque spanner well calibrated and use carefully. Shift the bearing on pin using a crow bar after tightening. As discussed earlier, if we are careful in starting of the generator (turn by hand, air run and then fuel run making sure that sufficient priming is achieved), most of the bearing problems are avoided. Generally checking and maintenance of alternators is forgotten. Regularly clean alternator filters clean and maintain good ventilation.

Learn with the Electrical Officer the normal maintenance on Alternators. Beware also of the transformers. During vacation, take up a course on Electro Technology and Electronics. These

days all companies are conducting in house training where these courses are available free so why not take advantage of them? This has become a necessity these days because of increased automation.

Acronyms:

Engine Control Room	ECR
Printed Circuit Board	PCB
Uniflow Scavage, Exhaust Turbo Charge, Cross Head	UEC
Main Engine Turbo Charge	M/E T/C
Jacket Cooling Water	JCW
Compact Discs	CDs
Heavy Fuel Oil	HFO
Cooling Water	CW
High Temperature	HT
Low Temperature	LT
Lube Oil	LO
Fuel Oil	FO
Running Hours	RH
Main Engine	M/E

To be continued.

By **Mahendra Singh**
Chief Engineer

The Principled Seafarer

Some thoughts on maintenance program principles.

by
Iman Fiqrie Bin Muhammad
(LCDR, USN ret)
Lecturer, Malaysian Maritime Academy

Behind every highlight is a signal that something needs attention or highlighting for our action or information. This short highlight is no different! Besides the obvious need as demonstrated by numerous Lifeboat tragedies and condition of many maritime assets - - every now and then it's good as the GlobalMET motto suggests to train, train, retrain and retain!

Here are some important maintenance guiding principles;

- ◆ Maintenance is part of a system and not just something a maintenance man does alone!
- ◆ It involves both proactive preventative and corrective maintenance!
- ◆ We do maintenance, but can we prove it with proper maintenance records and qualifications.
- ◆ The system must be regularly audited, assessed, reported and transparent!
- ◆ There must be active involvement from the very top on down; with regular and random checks, the highest percentage occurring at the direct supervisory level.

These are but a few yet important characteristics of a functioning maintenance program, if you don't have it... The old adage, "management by walking around" still applies as well as holding people accountable with both negative and positive consequences!

Highlight

Letter to Rod Short



Preventing Collisions: Construing & Complying, Rule 8(f), "Not to Impede", pt 1



This is in continuation of my previous paper on the subject of preventing collisions published in newsletter 26 of October 2013, I had then shown some of the weak areas about the misunderstandings and incorrect application of the rules with reasons. Since then, as much as I know, the spate of collisions has not reduced and they continue at regular intervals. The usual list of root causes that it was sheer bad luck, poor look out, loss of situational awareness and even inappropriate use or misuse of VHF etc., are perhaps not the real root causes. A prudent watch keeper needs to be fully dedicated and devoted to the task of navigation as the 1st priority, but the execution of the tasks should be built on a solid foundation of knowledge, understanding and core fundamentals so that the concepts are clear for best practical application. The application of the Rules has to be in conjunction with watchkeeping standards from STCW Convention Sections VIII/2, SOLAS Chapter V basic ship handling elements and any requirements incorporated in the Safety Management System of a Company, the last being mandatory under the ISM Code.

A reputed Hull and Machinery underwriter recently commented, there seems no change in the claim trend of maritime collisions pre ISM to post ISM, in effect the benefits of the ISM Code can again be debated, but this article is not on this. As stated by me earlier, the construing element of the rules needs to be addressed first and then better compliance or practical application can be expected.

This article is to explain paragraph 'f' of Rule 8, this paragraph was added to these Rules of 1972 in 1989 primarily to clarify the application of 'shall not impede' and thus making MSC/Circ.320 of 05.04.1982, 'Guidance for the Uniform Application of Certain Rules of the International Regulations for Preventing Collisions at Sea, 1972' redundant as far as it explained the requirements on 'not to impede'. Its placement and cross linkages with other rules makes its understanding and application a little complex.

(i) 'A vessel which, by any of these Rules, is required not to impede the passage or safe passage of another vessel shall, when required

by the circumstances of the case, take early action to allow sufficient sea room for the safe passage of the other vessel'.

(ii) 'A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of collision and shall, when taking action, have full regard to the action which may be required by the Rules of this part'.

(iii) 'A vessel the passage of which is not to be impeded remains fully obliged to comply with the Rules of this part when the two vessels are approaching one another so as to involve risk of collision'.

When is this rule applicable? This is the 1st question. The Answer lies in subparagraph 'f-i' of this Rule itself, 'a vessel which, by any of these Rules, is required not to impede the passage or safe passage of another vessel'. 'Not impede' and similar terms using 'impede' are used in Rules 9 (b), (c), (d), 10 (i), (j), 18 (d-i), (e) and (f-i) of this Part 'B'. As per any of these, when 'not to impede' is activated, its application is in conjunction with and by complying with the requirements of Rule 8(f). Thus Rule 8(f) applies only with these 8 referred paragraphs of the Rules and not with any other, for example Rule 8(f) has nothing to do with the application of say Rule 15 'crossing situation'.

This Rule is placed in section 'I' of Part 'B' and shall 'apply in any condition of visibility', the latter clause equally applies to Rules 9 and 10. However, when applied with Rule 18, this Rule will only 'apply to vessels in sight of one another' as Rule 18 is in section 'II' of Part 'B'.

For vessels 'in sight of one another', 'not to impede' takes precedence over 'give-way' as will be the first obligation whenever required, 'keep her course and speed' will not apply with this rule ever as explained further.

As a quick reference the following chart should explain the basic application of this Rule.

A vessel the passage of which is not to be impeded'	'A vessel required not to impede the passage or safe passage of another vessel'	Rule 8(f)
Keep watch and keep observing, no action required at this stage.	i) Shall 'take early action' so as 'not to impede' or keep clear and 'allow sufficient sea-room', or maintain sufficient 'safe distance' from the path 'of the other vessel'. ii) Should not allow 'risk of collision' to develop. iii) Action shall be initiated whenever required by Rules 9, 10 and 18, irrespective whether 'risk of collision exists' or not. iv) Vessel has full freedom of action.	i
	i) If the situation develops 'to involve risk of collision' with the other vessel, obligation to keep clear as per subparagraph 'i' remains fully applicable and she shall 'take action to avoid collision' in accordance with the Rules of Part 'B'. ii) 'Keep her course and speed' status cannot be applied, even if these vessels are 'in sight of one another'.	ii
i) If the situation develops 'to involve risk of collision' with 'a vessel required not to impede the passage or safe passage', 'take action to avoid collision'. ii) Actions shall 'comply with the Rules of this part' or Part 'B', this may be considered similar to 'action by stand-on vessel' as per Rule 17.		iii

◆ Actually subparagraphs ii and iii get activated together. There is nothing like a stand-on vessel but when in sight of each other and in situations governed by subparagraphs ii and iii, restrictions imposed by Rule 17 would apply.

To be continued in part 2 next month.

By **Capt. Yashwant Chhabra**
Senior Manager, Training & Development, MSI Ship Management Pte Ltd Singapore

Dr Chris Haughton to Advisory Panel

Dr Chris Haughton

EdD MA BA PGCC CertEd QTLS Master Mariner FNI FIFL
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On the appointment of GlobalMET Advisor Chris Haughton, We are very pleased that Chris Haughton has agreed to join the GlobalMET Advisory Panel.



Chris is a facilitator and independent consultant focusing on educational leadership and management, personal and organisational development, and executive coaching.

He went to sea in 1971 and served on numerous ship-types including general cargo, tankers, containers, reefers, bulkers, a livestock carrier, ferries and passenger ships. In 1988 he came ashore into teaching, eventually becoming Head of School at a Nautical College in the UK.

After a time at Videotel, where he still acts as a Consultant, he joined Lancaster University as a teaching fellow before pursuing an independent career in 2007. He is currently involved in the design and delivery of leadership and personal development programmes, organisational diagnostic work, effective presentation skills courses, mentor development programmes and coaching.

Chris is also an external examiner at Southampton Solent University and tutors on distance-learning MSC and MBA programmes at Middlesex and Lancaster Universities.

A qualified teacher and executive coach, Chris holds degrees in education and a doctorate from the University of Birmingham. He's a Fellow of the Nautical Institute; former Chair of their Professional Development Committee; and a Fellow of the UK's Institute for Learning.

Outside work, his passions, apart from family, include making music, theatre, fell-walking, cooking, cycling (slowly) and old Land Rovers.

His driving force is to inspire others to engage in life-long learning, maximise their potential, and in so doing, extend their personal boundaries.

Highlight

Greetings from Maritime Training Institute, Karachi

by
Capt. S. M. Ajmal Mahmoodi
Managing Director & Chief Executive

We are pleased to inform you that another feather in the cap of MARITIME TRAINING INSTITUTE, KARACHI-PAKISTAN, as received

"HIGHLY COMMENDED TRAINING AWARD" at LLOYD'S LIST MIDDLE EAST & INDIAN SUBCONTINENT AWARDS EVENT HELD ON 18TH NOV 2014 AT JW MARRIOTT HOTEL, DUBAI





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