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The Maritime Education and Training (MET) Network with NGO Status at IMO

GlobalMET

NEWSLETTER



Cadets from the Maritime Academy of Asia and the Pacific (MAAP), a member of GlobalMET.



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Articles in this newsletter represent the views of the authors. They need not reflect the views or policies of their employers or GlobalMET.

Editorial Board:

Sriram Rajagopal
Hong Kong

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.

www.globalmet.org

Message from the Chairman

Capt. Pradeep Chawla



Dear Members,

Happy New Year 2022. It has been an eventful turbulent year for GlobalMET. In November 2021, we received the sudden tragic news of the passing away of our long-time colleague, board member and guide, Richard Teo. Richard had been associated with GlobalMET since its inception and we will all miss him. We thank all of you for the touching 'In Memoriam' messages that you sent.

We have also completed the move of GlobalMET from its erstwhile location in Tasmania, Australia where it had been located for more than ten years, to Hong Kong where it will be closer to all its members. This shift entailed a good amount of paperwork, legwork, reincorporation, and re-registrations. Mr. Jagmeet Makkar, our newest board member helped us to a large extent in this and we thank him for his efforts. Now, with most of this work done, we can focus on the activities for 2022.

Our newsletter too has a new format and a new editorial team, headed by Capt. Sriram Rajagopal. They have since been busy going through your submissions, working on new articles and content themselves, and making them ready for publication on time. We plan to make the newsletter even more regular, and welcome submissions from all members.

Please send your articles to him and the secretariat directly - you will find their email addresses on the back cover of this issue.

Our Secretariat has been busy along with our member Core Competency in re-designing the newsletter, and improving the website. We appreciate the efforts that they have made. If you have any suggestions on either, please do send them directly to the secretariat.

In February 2022, we will again be representing our members' interests at the IMO at HTW 8 (7 to 11 February). Members who would like to contribute their expertise to the working groups are welcome to contact our secretariat, Capt. Sriram Rajagopal and Capt. Vinayak Mohla, who will only be too happy to have you on board.

Finally, I wish you all a Happy New Year 2022.

May this year bring fulfillment to all your aspirations.

Capt. Pradeep Chawla

Chairman, GlobalMET

Group MD, QHSE & Training,

Anglo Eastern Ship Management

Editorial

Capt. Sriram Rajagopal



Dear Readers,

Warm wishes for a Happy New Year 2022.

Much has happened in 2021 and one hopes that 2022 has a more relaxed tempo. In November, we suddenly lost our erstwhile editor Richard Teo. Richard had planned to hand over the task of editing of the newsletter from December 2021 onwards to the new editorial team. His demise was naturally a shock to all of us, and we are trying to fill in his large boots – a difficult task, given the dedication with which Richard used to do this exercise. I must admit that we are just about coping with his absence. We will all miss him.

With this issue, we usher in a new format to the newsletter, thanks to the contributions from members, the editorial team and with the support of the secretariat and the board of directors. We hope that this variety of articles will be of interest to all members. If you would like to contribute to future newsletters or have any suggestions regarding our format or choice of articles, please do send me an email.

Upcoming IMO meetings

From this issue onwards, we will be updating members in each issue of the dates of various meetings of the International Maritime Organization (IMO) for the year. This will help members stay abreast of the happenings at the IMO. Members are welcome to send in their points of interest related to any of the meetings, and we will put them forth at the relevant IMO platform. Please see the email addresses on the back cover for our contact details. We will of course be representing our member interests at the upcoming 8th session of the Sub-Committee Human Element, Training and Watch Keeping (HTW8) which will be held from 7 to 11 February 2022. We plan to participate in the deliberations and to help the IMO in the review of model courses. We will naturally keep our members posted on the decisions taken therein, through this newsletter.

AMSA Safety alert 02/2021 – Hydrostatic Release Units (HRUs)

The correct fitting of hydrostatic release units has been subject of numerous deficiencies identified by PSC, surveyors, classification societies and internal auditors. At such a time, Safety Alert 02/2021 is topical. Issued by the Australian

Maritime Safety Authority (AMSA), it describes best practices for fitting and servicing them. We hope members find this article useful, and convey its lessons to their students and seafarers, especially in their courses for deck officers.

Teaching the COLREGS and Horizontal Sectors – an experience sharing article

Capt. Yashwant Chhabra has been teaching the subject of the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS) for nearly three decades. In this article, he shares with us techniques that he has developed over the years to keep seafarers and students interested, while they learn and master the regular and trickier parts of COLREGS. He especially focusses in this article on the relevance of horizontal sectors of lights, teaching COLREGS, using case studies and investigation reports and linking them to practical experiences at sea. Deck department teachers will especially find this article most interesting, though it also contains 'Easter eggs' that will be of interest to all teachers and trainers.

Classroom seating arrangements

In the final article for this issue, we explore the benefits and limitations of various classroom seating arrangements. These include the six prominent types: Traditional, Roundtable, Horseshoe or semicircle, Double Horseshoe, Group Pods and Pair Pods. We also showcase photos from various university classrooms that use these arrangements, and often go beyond them. We then comment on the real life scenarios encountered by teachers, our profession's training needs and the limits that institutes to have within which they have to perform. Finally, we give a set of 'tips' for teachers, trainers and maritime education and training establishments to make the most of their classroom seating arrangements.

We hope you will enjoy this selection of articles. Please do give us your feedback on rajagopals@angloeastern.com

Happy Reading.

Capt. Sriram Rajagopal

Editor, GlobalMET Newsletter
Head of Outreach Activities (GlobalMET)

Upcoming IMO Meetings - 2022



The Editorial Team, GlobalMET Newsletter. Source: IMO.

Members please note: There are no IMO meetings currently scheduled for the month of August 2022. HTW 8 will be held from 7 to 11 February and GlobalMET will represent its members in it. Members wishing to participate in and contribute to the

review of model courses – please send an email to Capt. Sriram Rajagopal and Capt. Vinayak Mohla on the addresses on the back cover. They will be most happy to include you in the team.

PROGRAMME OF MEETINGS FOR 2022

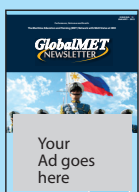
17 – 21 January	SUB-COMMITTEE ON SHIP DESIGN AND CONSTRUCTION (SDC) – 8th session	Remote meeting
7 – 11 February	SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING (HTW) – 8th session	Remote meeting
28 February – 4 March	SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT (SSE) – 8th session	Remote meeting
7 – 11 March	<i>36th meeting of the Editorial and Technical (E&T) Group (IMSBC Code)*</i>	Remote meeting
7 – 11 March	<i>IMSO TMLA WG-1</i>	Remote meeting
14 – 18 March	<i>The eleventh meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 11)*</i>	Remote meeting
21 – 25 March	LEGAL COMMITTEE (LEG) – 109th session	Remote meeting
28 March – 1 April	IOPC FUNDS	Remote meeting
28 March – 1 April	<i>Forty-fifth meeting of the Scientific Group under the London Convention and the sixteenth meeting of the Scientific Group under the London Protocol (LC/SG 45)*</i>	Remote meeting
4 – 8 April	SUB-COMMITTEE ON POLLUTION PREVENTION AND RESPONSE (PPR) – 9th session	Remote meeting
20 – 29 April	MARITIME SAFETY COMMITTEE (MSC) – 105th session	TBC
9 – 13 May	FACILITATION COMMITTEE (FAL) – 46th session	TBC
16 – 20 May	<i>6th meeting of the Expert Group on Data Harmonization*</i>	TBC
16 – 20 May	<i>The twelfth meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 12)*</i>	TBC
[25 – 27 May]	<i>First Intersessional Working Group on Relations with Non-Governmental Organizations</i>	TBC
6 – 10 June	MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) – 78th session	TBC
13 – 17 June	IMSO ADVISORY COMMITTEE – 47th session	TBC
13 – 17 June	<i>Experts Group on Ships' Routing*</i>	TBC
21 – 30 June	SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE (NCSR) – 9th session	TBC
11 – 15 July	COUNCIL – 127th session	TBC
18 – 22 July	<i>IMSO TMLA WG-2*</i>	TBC

25 – 29 July	SUB-COMMITTEE ON IMPLEMENTATION OF IMO INSTRUMENTS (III) – 8th session	TBC
12 – 16 September	IMSO SES Conference (15-16)	TBC
19 – 23 September	SUB-COMMITTEE ON CARRIAGE OF CARGOES AND CONTAINERS (CCC) – 8th session	TBC
26 – 30 September	<i>37th meeting of the Editorial and Technical (E&T) Group (IMSBC Code)*</i>	TBC
26 – 30 September	IMSO Assembly 28th session	TBC
29 – 30 September	14th meeting of the LP Compliance Group*	TBC
3 – 7 October	44th CONSULTATIVE MEETING OF CONTRACTING PARTIES (LONDON CONVENTION 1972) 17th MEETING OF CONTRACTING PARTIES (LONDON PROTOCOL 1996)	TBC
17 – 21 October	TECHNICAL COOPERATION COMMITTEE (TC) – 72nd session	TBC
17 – 21 October	<i>29th meeting of the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue*</i>	Outside IMO HQ
24 – 28 October	IOPC FUNDS	TBC
2 – 11 November	MARITIME SAFETY COMMITTEE (MSC) – 106th session	TBC
28 November – 2 December	COUNCIL – 128th session	TBC
5 – 9 December	<i>18th meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters*</i>	TBC
12 – 16 December	MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) – 79th session	TBC

OTHER EVENTS

	Orientation seminar for IMO delegates	TBC
25 June	Day of the Seafarer	TBC
29 September	World Maritime Day	TBC
TBC	World Maritime Day Parallel Event	TBC

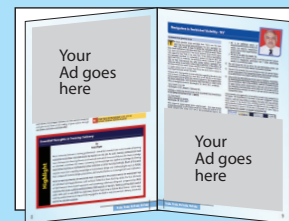
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Correct Use of Hydrostatic Release Units (HRUs)

The Editorial Team, GlobalMET Newsletter

The incorrect connection and fitting of Hydrostatic Release Units (HRUs) has been subject of numerous Port State Control (PSC) deficiencies, internal ISM audit findings, Classification society surveys and flag state inspections. To help address these, the Australian Maritime Safety Authority (AMSA) issued Safety Alert 02/2021 regarding the correct fitting, and thus, the correct use of HRUs on board ships. We reproduce the salient points of this safety alert here.

Members might find this article useful for conveying the lessons contained therein to their students and seafarers, especially in their safety and PSC related courses, since HRUs and liferafts are often checked by PSC officers and internal ISM auditors, not just in Australia, but also around the world. Do remember that HRUs are fitted not just to liferafts – they are also fitted to the emergency position indicating radio beacon (EPIRB) and voyage data recorder (VDR).

Compiled by: The Editorial Team, GlobalMET Newsletter

Hydrostatic release units



The Hydrostatic Release Unit (HRU) is designed and approved to automatically deploy a life raft or EPIRB in the event of a vessel sinking.

HRUs operate between 1.5 and 4 metres of water depth, to release the securing mechanism for the life raft or EPIRB.

AMSA inspectors often identify circumstances where HRUs are incorrectly fitted. In 2021, AMSA has issued over 100 deficiencies in relation to deficient HRU arrangements on life-rafts and float-free EPIRBs.

Life raft HRUs

The HRU that is used on life raft securing devices cuts through a cord that fastens the securing straps. The life raft container has enough inherent buoyancy to float free from its cradle and in doing so, pulls out the life raft painter to inflate the raft.



The painter is attached to a weak link that is designed to break once the raft has inflated.

It is important that the HRU and weak link are correctly installed. If the painter is not attached to the weak link correctly, the raft may not inflate, or may not release from the sinking vessel.

HRUs are designed to operate with specific equipment. The HRU for a life-raft must be suitable for the size of life-raft secured. Multiple life-rafts must not be secured by a single HRU unless approved by the manufacturer.

Over tensioning of the securing straps can lead to failure of the HRU to operate. Similar problems can occur when there is insufficient load on the HRU. Securing straps should be taut but not over tight.

Care must be taken to ensure the securing straps on a life-raft canister will release when the HRU activates, and that the life-raft painter is attached to the HRU weak-link.

A short video showing the operation of a life raft HRU can be found on the website of the popular HRU manufacturer Hammar.

EPIRB HRUs

The HRU that is used for a float-free EPIRB operates in the same way, but usually cuts through the mechanism securing the EPIRB container. Once the container is opened, the EPIRB will float free and activate.

The HRU on a float-free EPIRB should be checked to ensure it is installed correctly. No additional lashings should be used on the EPIRB housing – this can prevent the housing cover from releasing when the HRU activates, stopping the EPIRB from floating free.

Servicing and expiry

HRUs can be serviceable or disposable.

Re-useable HRUs must be serviced annually to ensure they will work when required. The HRU must be serviced by the manufacturers authorised service agent.

Disposable HRUs have a service life once installed and must be replaced once they reach their expiry date. The service life of the HRU is determined by the manufacturer. Most disposable HRUs have a service life of two years after they have been installed on the vessel. The date of installation or expiry is marked on the HRU.



Reminder

- Check that you have the right HRU for your safety equipment
- Check that hydrostatic release units are correctly installed
- Check that life-raft painters are connected to the HRU weak link
- Ensure HRUs are serviced or replaced by their due date.



Capt. Yashwant Chhabra

Teaching COLREGS

Horizontal sectors of lights – usual “In sight of one another” situations

1. Introduction

It is always a challenge for maritime educators, teachers, and trainers to make the Rules and Annexes from the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS), as amended, an interesting subject to the audience. Some think it is a purely theoretical exercise and some others feel it must be learnt ‘by heart’ or committed to memory, an undoubtedly tedious task even for the best of us. The ‘evils of rote learning’ have been discussed by many educators including Melton (1964), Baines and Stanley (2000) and more recently in the GlobalMET Newsletter 77 (Sule, 2021). When applied to how COLREGS should be taught and learnt, we trainers too have different opinions based on individual experiences and perceptions, which may even change with time and experience. Some advocate rote learning, others see such ‘by heart learning’ as unnecessary, there is a third category which feels that rote learning coupled with understanding is a good idea, and a fourth category, though extremely minuscule, also exists which considers it all unnecessary, since ‘most ships anyway do not follow the rules’ and act by their gut feeling.

One common underlying fact in most maritime training institutes and examination centres is that despite the best of everyone’s intentions, there is an unintended lack of importance or ‘low status’ given to this subject. In open book surveys of just over a thousand qualified officers conducted by me over a stretch of time showed the correct results achieved as just 54.6%, (Seaways, September 2015).

2. COLREGS

The International Regulations for Preventing Collisions at Sea, 1972, as amended, are referred to in the maritime community by different phrases and acronyms. These include COLREGS (the term preferred by the IMO) and surprisingly when expanded is stated as Collision Regulations, most widely used. Rules of the Road or ROR (a term used extensively in commonwealth nations or those influenced by the UK), or IRPCS (a term that I now prefer to use). Though these are and remain exclusively for “Preventing Collisions”, except Annex IV on distress signals, which for reasons unknown, remains a part of these Regulations.

The subject is of extreme important for everyone who forms a part of the bridge navigational watchkeeping team as an OOW, master or pilot. It is also part of STCW competency courses on navigation. It forms the foundation of what every deck officer must do for eight hours each day at sea for preventing collisions. It surely deserves better respect and importance in nautical colleges, training centers and examinations alike, if we see the regularity of maritime vessel collisions and related losses.

Whereas all educators would, I believe, like to make the topic interesting, relevant, and fun while highlighting its extreme importance, we are often at a loss as to how to do so. The contents are generally rather dry, often shrouded in an overdose of ‘legalese’. I too face this difficulty and can safely admit this, even after writing an exclusive guide on the subject and conducting scores of classes and workshops.

3. Ideas for teaching

Teachers should, ideally, interpret the subject contents well to establish clarity of their core concepts and understanding. And very importantly link it all to practical application by amalgamating with real-life experiences, investigation reports, and garnish them with anecdotes. All this would make it easy for the participants too and kindle interest in the details and application (Syms, 1992). This can admittedly make us wonder whether core concepts should precede understanding, or whether they should follow it, or whether the two should proceed in tandem. This is akin to the question of whether the chicken came first or the egg, and each approach has its merits.

3.1 The importance of Quizzes

Nothing gets participants more excited than a quiz, for starting a session it works best as an opening activity for the experienced. The first few minutes consists of a few questions, open book, nothing fancy. In this case, just questions about the extent, starting, termination points and overlap of the sectors of the masthead light, sidelights and sternlight and the situations they represent. Invariably, many do not get these fully correct, but quickly gets them interested in finding the correct answers.

Quizzes on the subject are great as long its not just a right/wrong marking activity but invokes a discussion on the subject which should delve on what was the reason for anyone to not get the correct answer. The quiz and related discussion process work in all sections of any training, before during or after.

3.2 Never embarrass the participants

I learnt early on, that it is not the role of the teacher to always judge students, they can evaluate their performance themselves. Hence, all quizzes in the training sessions are corrected and marked by the participants themselves. Each day, they do a few, in person or as post-session tasks (homework). The aim is to help them discover something new. The marks that they score are not important. It is just a starter to pique their interest. If they get the answers right a day later, they have learnt, and that is all that matters. I only verify the final answers, if needed for internal reporting purposes. Participants should neither be asked their marks publicly nor their weak areas highlighted. Though I do try to get a general idea of where the group stands by quickly sifting through the answer sheets; the idea being to identify the weak areas of a group and to enable address them better in subsequent activities. At the end, we celebrate our learnings.

3.3 Ask them to use their hands

No, serious, I do mean this. Learning becomes boring when a person is static. This is especially true for seafarers, as they tend to work in a non-office-based environment on ships where they are always on the move. Moreover, the same topic becomes interesting and relevant when you ask people to animate, and use their hands, feet, or bodies. The topic of horizontal sectors is custom-made for such exercises. I ask the participants to show the horizontal sectors, with their hands, even get up and draw on the board with assistance from the group, so it becomes a group activity.

I have discovered with time that seafarers remember lessons learnt by these methods far better than by static one-way lectures or even presentations. It also prevents any miscommunication

and makes it easy for me to correct them. The topic suddenly comes alive from the pages of the book, as if by magic!

In one of my recent on-board training exercises, I asked a young officer cadet the sectors at which a vessel would be deemed crossing. He made a common error of showing it from right ahead to the starboard beam. I asked him to check the COLREGS book close at hand. He saw his mistake, and promptly extended his right hand by a further 22.5 degrees abaft the beam. We discussed how this sector is linked to the limits of a side light too. Learning accomplished. The next day, I asked him the same question. He smiled, and with a flourish, spread his hands over 112.5 degrees from right ahead to 22.5 degrees abaft his beam! He certainly made me proud, and we had a good laugh.

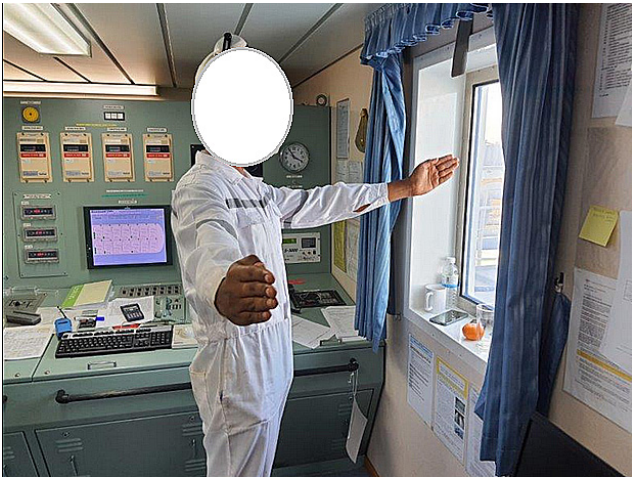


Image 1: A smart young officer cadet on board a ship, learning the horizontal sectors of lights. (Photo taken by the author during a shipboard assignment)



Author's note:

Using the hands is, in my opinion, an excellent way to learn the horizontal sectors of lights. If you feel there is something amiss in this photo, read on! Ten minutes later, after checking the relevant pages of his well-worn book, the bright officer cadet got the crossing sector perfectly right and was able to link it with the sector of the starboard sidelight; I don't think he will ever forget this.

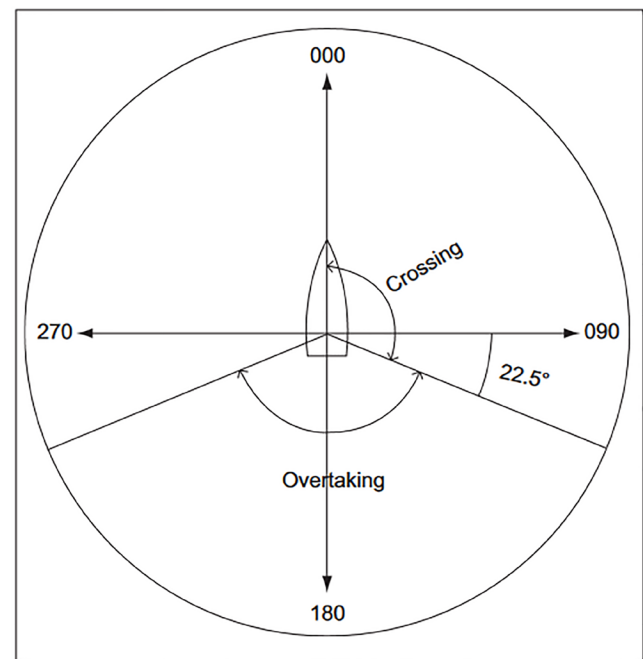
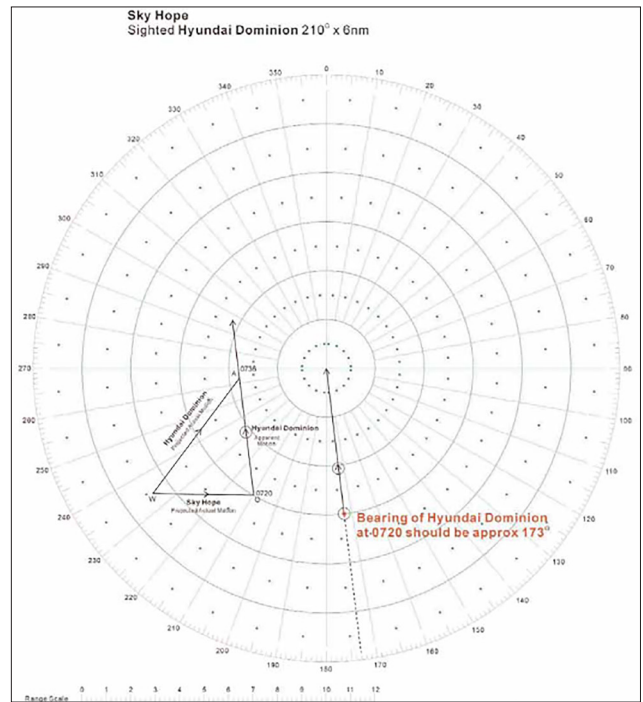
3.4 Connect the dots - Narrate lots of real-life incidents and case studies

Once the above have been done, connect the lessons learnt to real-world scenarios. Show two ships and flip over multiple situations. I find a whiteboard and quickly draw basic diagrams for this, it needs no preparation and is fast, even two pens on a table work well. We make oodles of such situations and it quickly becomes fun for all officers. The results rest very well in the minds of the navigating officers, including experienced masters. All officers like real world lessons.

One of my favorite case studies for this topic is the *Hyundai Dominion - Sky Hope* collision. It occurred in June 2004 in the East China Sea, yet the lessons are as relevant today as they were when the incident occurred. The official investigation found several contributing factors, some of which related to failures in inter-ship communication, best navigation practices and COLREGS. And it makes an excellent case study to delve into the inner workings of Rules 8 (Action to avoid collision), 13 (Overtaking), 15 (Crossing situation), 16 (Action by give-way vessel) and 17 (Action by stand-on vessel).

In this incident, the OOW's on each ship differed in their analysis of the situation. The OOW on one ship judged correctly that the other was a crossing vessel, while the other incorrectly perceived it to be an overtaking situation. Such errors of judgement do

occur commonly, especially when a ship is coming up from a relative direction on the beam or just abaft the beam, and even up to 22.5 degrees abaft the beam. Such ships may be assessed as overtaking, even though they are clearly crossing as per the Rules. A sound understanding of the Rules will help prevent incorrect assessments supported by proper use of ARPA vectors and trails.



Representation of Rules 13 and 15 (COLREGS)

Image 2: Excerpts from the *Hyundai Dominion - Sky Hope* investigation report showing the tracks of both vessels (MARDEP, MAIB, 2004).

4. An example quiz

Taking a cue from this case, I use the below exercise to explain the three key Rules/situations and the corresponding horizontal sectors and lights. This is an open book quiz exercise, with a few sample answers filled in before. Each participant fills in the rest of the blank boxes while referring to a copy of the COLREGS. Once answered by the participants, each question and rule is discussed individually, one row at a time.

RULE NO	The Rule applies to which vessels and how many?	Does the rule use the term 'involve risk of collision'?	Does the rule use the term 'doubt'?	Is the relative approach sector directly defined, defined by implication or may be determined by elimination – what are the sector angles?	Is there a corresponding light sector associated with the horizontal limits of the sector applicable to the rule / situation? Please elaborate.
13 OVERTAKING		No			The overtaking vessel can see only the sternlight of the vessel being overtaken.
14 HEAD-ON SITUATION	Only to power-driven vessels, 2 vessels as stated.	Yes			
15 CROSSING SITUATION			No		

We then compare answers. The correct answers finally look like shown below, but are done row by row in the discussions to get clarity of each rule and the phrases within.

RULE NO	The Rule applies to which vessels and how many?	Does the rule use the term 'involve risk of collision'?	Does the rule use the term 'doubt'?	Is the relative approach sector directly defined, defined by implication or may be determined by elimination – what are the sector angles?	Is there a corresponding light sector associated with the horizontal limits of the sector applicable to the rule / situation? Please elaborate.
13	All vessels, the Rule implies 2 vessels	No	Yes	Defined, overtaking vessel approaching from more than 22.5 degrees abaft the beam of the one being overtaken	The overtaking vessel can see only the sternlight of the vessel being overtaken.
14	Only to 2 power-driven vessels, as stated	Yes	Yes	Defined, both vessels should be able to see both the sidelights of each other, that is a maximum of 3 degrees on each side of the right ahead.	Refer MSC.A/Circ. 1427 of 28-05-2012
15	Only to 2 power-driven vessels, as stated	Yes	No	Not defined: whatever is not 'head on' or 'overtaking' is to be considered 'crossing'.	A stand-on vessel would see the green side light sector of the give-way vessel

Rather than discuss the horizontal sectors of light separately, we include them in the above discussion. This exercise is continued to explain the light sectors and common situations encountered when vessels are in sight of one another.

FINAL CONCLUSION

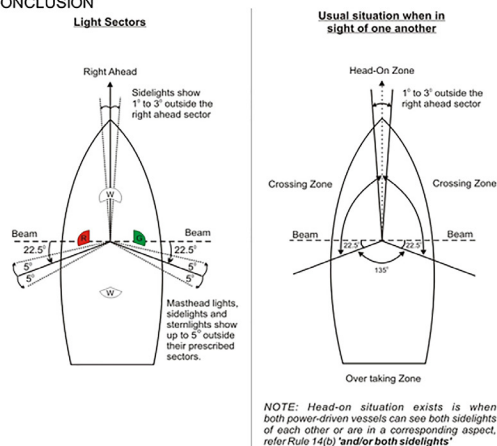


Image 3: Extract from "A Mariners Guide to Preventing Collisions" by the author.

5. Conclusion

Good navigation and sound collision avoidance practice requires a good understanding of the COLREGS. It is left to us educators to help our students and officers understand these for best practical application, by interpreting them step by step.

The views expressed in this article are purely of the author and need not necessarily reflect those of his employer. How did you find this article? What did you think of the ideas suggested in this article? Do you have similar or different views? Please send your feedback and comments to the editor at: Sriram.rajagopal@globalmet.org, with a cc to Rajagopals@angloeastern.com

I sincerely believe that we should give this topic more attention at nautical schools during pre and post sea competency courses, for all ranks from cadets to masters, in value-added courses at training centers, and finally in any examinations. More focus should be on analyzing situations and taking action to avoid collision, in present day context, where lights are used less, shapes even lesser, and the ARPA used a lot more with AIS, especially in restricted visibility and ultra-dense traffic areas.

Seafarers value learning something, if they feel that it will be of use to them in their real life working. They prefer to learn from real life experiences and case studies – especially those of their teachers and peers. Let us help them in this endeavor.

In this article, I have shared some ideas, thoughts, and personal learnings which I hope will invoke thinking amongst other trainers in their endeavors. The views and ideas discussed are based on my experiences of having taught the subject for nearly thirty years. Nothing is perfect and as they say, there is more than one way to skin a cat. I have primarily addressed only "horizontal sectors of lights" and corresponding situations here. The principles shared can be used anywhere.

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About the author

Capt. Yashwant Chhabra started his sea career on the training ship *Rajendra* in 1976, rising to a master in mid-1990. He stepped ashore in early 1993 as a pilot in Mumbai port, and entered maritime education the next year. He is currently Senior QHSE Superintendent in Anglo-Eastern Ship Management Ltd.

Prior to this, he served as Senior Manager (Training and Development) at MSI Singapore, (2014 to 2016), Manager – Training Standards at Anglo-Eastern Ship Management Ltd, (2010 to 2014), Lead Performance and Development Officer at BP Singapore (2007), General Manager – Crewing Operations at V.Ships-MSI Singapore (2006 to 2007) and had headed the Wallem Maritime Training Centre in Mumbai, India from its inception in 1994 up to 2004.

Even while working ashore, he sailed at regular intervals to keep himself abreast of current shipboard practices. He last sailed from October to December 2020, when he was suddenly asked to fill in as OOW for a new yard delivery VLGC where he had gone to train the officers, as the original OOW could not join due to COVID-19 related issues. He also sailed as Master on various tankers MR product/chemical tankers, large gas and ammonia tankers from 2016 to 2018.

He is the author of two popular books on navigation, "A Mariner's Guide to Preventing Collisions" and "A Mariner's Guide to Navigational Watches", published in 2011 and 2018 respectively and which are available as Kindle e-books.



Classroom Seating Arrangements and Their Importance

Capt. Sriram Rajagopal

1. Introduction

It is always interesting to enter a classroom for the first time for both, the teacher as well as the student. What is the seating arrangement like? How are the seats arranged? Does the class look inviting? For the teacher, curiosity makes her or him explore the location of the white board (or the black or green board), the projector and its screen. How are the students chairs arranged? How will the slides which you made with so much effort look to the participants, especially those sitting in the last row? Are there any blind spots? Each teacher makes a mental plan, unconsciously or consciously, of where they plan to stand or sit during their session, and how they plan to organize the teaching activities. Where are the windows? Where are the light switches? Can we organize activities around the current seating arrangement?

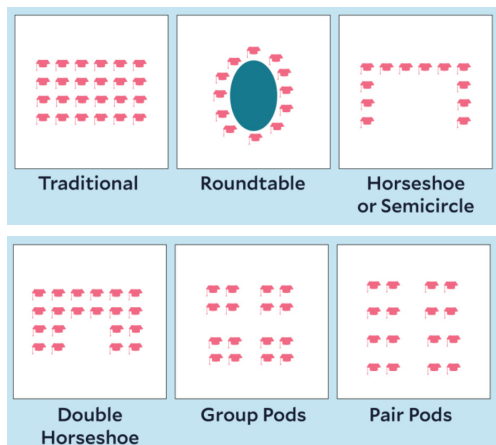
The student or participant on the other hand surveys the chairs and tables, quickly noting their relative advantages. First line? No, it is too close to the teacher. Last line? No, cannot see the slides clearly. Where is the air conditioning best? If the classroom has a window, shall I sit near it or away from it? Near the door or away from it? Those first few minutes are filled with curiosity, possibilities, planning and decision making.

But do classroom arrangements matter? Or rather, how much do they matter?

In this article, we attempt to examine the current theories and practices on the subject, describing the most popular classroom seating arrangements, their benefits and limitations and discuss their relevance to the practical realities of Maritime Education and Training (MET). To do so, we first explore common, and some not-so-common classroom seating arrangements and then dwell on the benefits and limitations of each of them. While doing so, we also present photos of classrooms at various institutions across the world that portray practical applications of these arrangements. Some even go beyond these text book examples, experimenting in interesting ways.

2. Six common classroom seating arrangements

The six most commonly used classroom seating arrangements are Traditional, Roundtable, Horseshoe or Semicircle, Double Horseshoe, Group Pods and Pair Pods. After taking a quick look at each of them, we also list some variations, with photos of how they might look in real life.

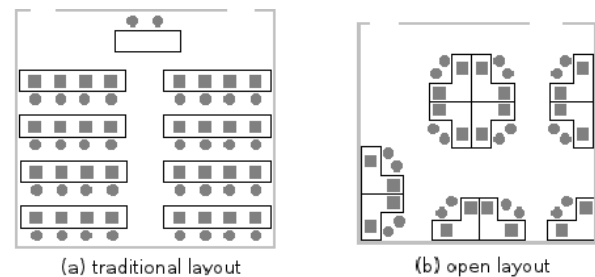


2.1 Traditional

The most common arrangement found in most MET centers, the 'traditional arrangement', has tables and chairs wherein students sit in straight lines, facing the lecturer who stands in front of them. Some places have a raised podium and most of my colleagues are wary of them, as it requires them to constantly watch their step, lest the class turns into an unplanned spectacle, near miss or worse. While the traditional arrangement is best suited for lectures, some educators are of the opinion that other arrangements suit discussion, engagement and team exercises better. The former also prevents the teacher from moving around much, though some sincere lecturers and presenters do pace the length and breadth of large traditional seating halls in a bid to keep their students engaged.



Figure 1: A traditional classroom seating arrangement.



2.2 Roundtable arrangement

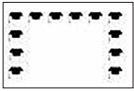


Roundtable

Roundtables are well suited for small interactive classes like MRM courses. Many maritime simulator institutes use this arrangement for their debriefing sessions. It especially helps the teacher to gently slide into the role of facilitator, and give each students a lot more talk time.

However, it can be difficult if a large number of students need to attend the class or if it is combined with slides or movies. In the latter, the neck gets good exercise, and a swivel chair is necessary. Every teacher and student has their own share of anecdotes of chairs discovered to have broken down during the class. Roundtable arrangements are best for groups of 6-12 participants.

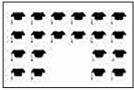
2.3 Horseshoe or Semicircle



Horseshoe or Semicircle

'Horseshoe' arrangements combine the benefits of the above two, and are especially common in MBA courses and teachers who want to replicate the same environment. Also called 'U shape' or 'semi-circle' arrangement, they are especially useful if your class has a lot of senior engineers and officers, and you want to foster discussion among them (referred to in teaching as 'intentional engagement').

2.4 Double horseshoe arrangement



Double horseshoe

The double horseshoe arrangement is more appropriate for larger classes. It is less encountered less frequently in maritime institutes, but is especially suited when one wants all the participants to participate in the classroom discussions. It especially makes sense when discussing maritime accident investigations and in classes with mature seafarers. The modified double horseshoe is the 'teaching industry's' answer to MBA classrooms with more than 25 students. Many of them today combine double, triple and even quadruple horseshoe arrangements, with a theater style teaching that rises slowly and 'looks down' on the teacher from the last rows!

2.5 Group Pods



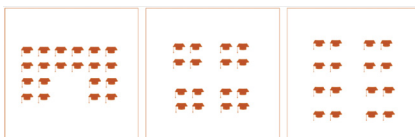
Group Pods

'Group pods' and 'pair pods' are great for team activities, also known as 'active learning' and lend themselves to great flexibility. Group Pods are especially popular in seafarer seminars, where one wants seafarers to have a lot of 'peer learning', discuss and analyse maritime incidents. However,

it may not be possible in all MET centers, especially those with fixed chairs and tables. It would be useful for training institutes that plan to conduct such courses to have flexible arrangements in their classrooms, with a flat flooring, chairs that can easily be moved, and tables that can be moved and joined if needed. Naturally, Group Pods do have a minimum number of students needed, good combinations being 3-4 participants per pod, and anywhere from 3-6 such pods. If the teacher has a microphone and a remote control for the power point slides (if used), it is even possible to have larger pods of 6-8 participants per pod, and 10 such pods. The latter is effectively practiced, with anywhere from 30-60 participants per class at the Department of Labor and Employment Safety officer course trainings in Manila (Philippines), with lots of group exercises to captivate everyone's interest. Group Pods arrangements can be used with rectangular, square and circular tables, and are a great way to maintain interest and engagement in large classrooms.

2.6 Pair pods arrangement

The Pair Pods arrangement uses smaller groups of students in pairs of two each. This helps ensure that no participant is left out in the larger pods.

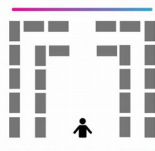


Double Horseshoe

Group Pods

Pair Pods

MODIFIED DOUBLE HORSESHOE



Other seating arrangements

The above are simply broad categories and further improvisations exist. For example, the 'Stadium seating arrangement' is a cross between the traditional and face-to-face arrangements.



Stadium

3. Real life examples

The following photos portray real life examples of classrooms from across the world. While some 'fit' into the above categories, others use a mix of the salient features of the above broad categories. Can you see which of these arrangements best suits your classes and subjects?



A classroom with a double horseshoe arrangement.

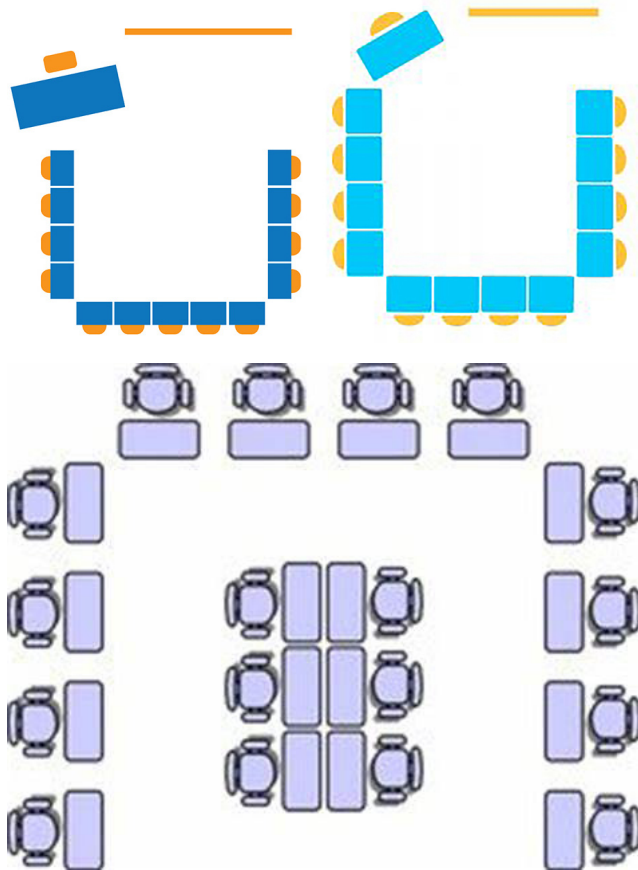


A Social distancing equipped classroom at the Istanbul Maritime University.



Fixed tables and traditional arrangement need not prevent a teacher from engaging the class. A class in progress at the Beijing language and culture university. Notice the teacher supervising the class from the back, as students stay engaged in exercises.

Horseshoe/U-Shape Horseshoe/Semicircle



4. IMO model course 6.09 and practical realities

The documentation for the 5-day IMO Training Course for Instructors (Model course 6.09), sometimes referred to as 'Train the Trainer Course' describes most of the above arrangements. However, they are not discussed much in detail during the actual courses. Neither is 5 days sufficient to cover such a vast range of topics. In some countries, the above course is followed with a 5 day assessor training, however the topics that it focusses on are different. Our non-maritime teaching counterparts normally learn these, over the course of a minimum of 12 months of a structured Teaching related Diploma or a three or four yearlong Bachelors of Education teachers training program.

Furthermore, in most maritime institutes, the teacher has little control over classroom seating arrangements. That is decided by the people who designed the classroom. Rarely do institutes ask teachers to participate in this planning and construction. Some MET centers employ portable chairs, combined with a folding table. This has both, merits and limitations. The table is invariably too small to hold books and papers, but this arrangement suits many participants who are mature, have many years of experience tucked under their arms, and are less interested in reading and note-taking, and more interested in the discussions and the learnings that they hold. In other words, such chairs are well suited for officers and crew, but ill-suited for cadets and new entrants.

4.1 Flexibility

Given the above benefits of each seating arrangement, and the constraints that we as trainers and heads of maritime institutes function under, it behooves us to be flexible. Perhaps it is a necessity. Furthermore, many maritime topics are not exactly suited for the above arrangements. For example, teaching knots and splices requires handling ropes, closer to the students eye

level. It may require everyone coming close to pipes and rails, for example when demonstrating a clove hitch. Many topics are best taught hands-on in workshops, for example: welding, gas cutting, lathe, mooring, donning of SCBA and enclosed space entry. A colleague of mine would routinely improvise in such situations, asking the participants to simply sit comfortably on the floor if he had to speak for more than four minutes in a workshop setting. MET itself is highly diverse. The same classroom arrangement may not suit a first year cadet classroom and a navigation safety campaign classroom for experienced deck officers. It would be useful to keep these differences in mind when deciding implementation strategies.

5. Some practical tips

Here are nine tips and suggestions to make the most of our classroom arrangements. They are mostly based on my own and my friends' experiences of teaching in classrooms for many decades:

1. Do involve your teachers and trainers when deciding the layout of a classroom, especially the chairs and tables. Involve them in the design and procurement.
2. Be aware of the benefits and limitations of each of the above arrangements.
3. There are many more benefits and limitations that *you* will experience, as you try out each of them. Feel free to experiment. It is important for the teacher to be ready to learn.
4. One size does not fit all. Remember that, and decide what arrangement suits your specific class and subject best.
5. There are benefits of using movable small size tables and chairs, given the needs of MET, as compared to fixed arrangements.
6. At the end of the day, the teacher is far more important and valuable than the seating arrangement.
7. A good teacher can compensate for a mediocre or even bad classroom arrangement. However, a class with an excellent classroom arrangement with a mediocre teacher may not be as interesting. Of course, a good teacher and a good classroom arrangement help make the class memorable.
8. If you have a medium or large classroom and need to spend more than three hours daily in the class, do your vocal chords a favour. Use a portable hook-on microphone. The training institute should provide this to each teacher. Don't make your teachers buy them for themselves – provide them with it. We owe it to our teachers. In today's world, they are easy to obtain, cheap and do not require any elaborate permanent wiring or speakers. I have used one for the last five years, it has travelled with me to eight cities and is among the best investments one can make.
9. Be receptive to feedback from students. If they prefer a particular classroom arrangement and it is easy to achieve, go with it.

6. Conclusions

Each of the six classroom arrangements described in this article have their own benefits and limitations. At the end of the day, it is only the teacher and students who can decide which arrangement suits their purpose best. Let us empower our teachers, trainers, people who design our MET classrooms and those who run our training centers with all the tools and resources they need to make the best of the above. We owe it to them.

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Capt. Sriram Rajagopal is a maritime expert with more than thirty years of experience in the maritime sector. He has been a seafarer, shipboard Captain, internal auditor, accident investigator, shipyard supervisor, university lecturer and maritime trainer. He is currently Senior QHSE and Training Superintendent in Anglo Eastern Ship Management. He has authored a number of journal articles and co-authored four chapters for the Nautical Institute book "A guide to bulk carrier operations" with Capt. Deepak Gupta. His latest book "A guide to loading steel coils" describes steel coil loading calculations and presents practical case studies on how to minimize cargo damages. He can be contacted on LinkedIn and by email on - "rajagopals@angloeastern.com" and sriramrajagopal@hotmail.com.

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