

# TRAINING JOURNAL

2020 EDITION



## OPINION

The training vessel:  
an approach that made  
all the difference

## ANALYSIS

Medicine &  
healthcare at sea

## INTERVIEW

Advancing maritime  
training in the  
Philippines

# WELCOME ABOARD!

WELCOME TO REAL  
PARTNERSHIP!

Maritime education and training –  
vital for the future of shipping



Cover: Prospective Deck Officers training  
on board a crew managed vessel; photo  
courtesy of Second Officer, Joe Remil Jurado

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“ People are important and ships need good, competent and motivated seafarers to operate well ”



*Specialised maritime safety training at KMSTC in Ukraine*

# WELCOME MESSAGE

Dear Readers,

We are pleased to present the 2020 edition of the Marlow Navigation *Training Journal*. Each year, this publication covers our most recent news and events in training, presents some of the new equipment and tools installed at our partner training centres in the Philippines, Ukraine and other locations, as well as newly introduced courses.

It also provides some of our Key Performance Indicators to date, which once again reveal continued positive momentum in all areas, including seafarer upgrade training at all major locations, new intakes to our cadet programmes, promotions, and the overall trend of officers on board and active seafarers out of the training programme.

Although this annual publication is in essence a reflection of the activities from the year that passed, it also presents a number of feature articles that focus more on current and upcoming trends and developments in maritime training. As such, we cannot avoid to also mention, at least in part, the impact and possible implications of the COVID-19 pandemic which was already happening at the time of publishing. No doubt, this has been the biggest disrupter to the global economy and even just our way of life for a generation.

Perhaps the main conclusion from it all, as you will also read in the Future Challenges, is that this crisis has accelerated the need to adopt a number of new approaches to training operations. Granted, these were already on the radar since some time, but have now quickly become imperative. For instance, cultivating a new advanced learning and training ecosystem by utilising digital tools and collaboration of various stakeholders. Also, the possibilities, if not the requirement, for more remote and virtual learning environments.

In the *Training Journal*, we also have special contributions from a number of industry experts, including an analysis on the very relevant topic of medicine and healthcare at sea, and a first-hand report of an hour spent in the engine room using virtual reality and augmented reality technologies from MAN Energy Solutions.

Meanwhile, we also share our opinion with regards to how good seamanship must be achieved via practical sea-based training. Specifically, we look at how the introduction of the *Emsstrom* training vessel in 1998 in Leer, Germany was fundamental in responding to this necessity. The experience gained from the *Emsstrom* also later became the foundation for many future successful training initiatives, including the establishment of dedicated training centres in the Philippines and Ukraine.

Finally, in this year's interview we speak to our specialised Training Consultant based in Manila. He gives us his expert view of the state and successes of maritime training in the Philippines and how it should evolve in the years ahead.

Training is central to our company's approach to crew management. Training forms the platform for developing and maintaining highly skilled and proficient marine professionals, thereby further promoting Competence, Quality and Safety. Our training initiatives have been well-established now for over two decades and sustained by industry-leading facilities, faculty and overall standards. However, this all also represents a successful collaboration with our clients, partners and associates in training. We must express our utmost gratitude for their ongoing support over the many years, which has led to great achievements.

As we look ahead towards what is still very much uncharted territory due to the recent pandemic, it is this collaboration, together with the unquestionable courage, strength and commitment of our seafarers, and teams ashore, that will continue to provide the world with the support it needs.

We hope you enjoy this year's *Training Journal* and find the content to be informative and valuable. As always, we are happy to hear your feedback, together with any suggestions for future editorial.

**Marlow Navigation  
Management**

*Ceremony and parade  
of new KSMA cadets*



*“ Every young person has talents to be discovered and with the proper guidance and support, this can be encouraged and developed so that they can become qualified and highly proficient maritime professionals ”*



*General Manager, Marlow Navigation,  
Captain Alfred von der Hoeh and Rector,  
KSMA, Professor Vasyl Cherniavskiy  
signing the annual cooperation  
agreement for the training and  
development of maritime officers*

## MARLOW SUPPORTS UNDERPRIVILEGED CADETS IN UKRAINE

Marlow Navigation continues its close cooperation with KSMA in Ukraine for the education, training and career development of marine professionals.

Marlow Navigation is supporting a number of new social initiatives in Ukraine, including scholarships for cadets from underprivileged families to help cover their annual tuition fees at Kherson State Maritime Academy (KSMA). Financial subsidies are provided to 25 cadets proposed by the student council.

In October 2019, representatives from the company, including General Manager, Captain Alfred von der Hoeh; Training Director, Joern Clodius; and Training Manager, Captain Martin Bankov visited and met with these cadets and presented them with certificates to acknowledge their participation in the scholarship.



*Marlow scholarship programme awarded to 25 cadets at KSMA*

“This is an important initiative, providing a better opportunity for students from disadvantaged backgrounds to access and pursue the education and training they deserve,” explained Captain von der Hoeh.

“Every young person has talents to be discovered and with the proper guidance and support, this can be encouraged and developed so that they can become qualified and highly proficient maritime professionals,” he added.

*Training Director, Joern Clodius awarding cadets from underprivileged families in Ukraine*



# NEWS & EVENTS - YEAR IN REVIEW

The annual official signing of cooperation between KSMA and Marlow Navigation also took place. Marlow has been an industry partner to the Academy for almost two decades, recruiting Ukrainian cadets on board crew managed ships as part of a 'hands-on' approach to training and developing maritime officers.

KSMA students are selected to join the company after their second year as cadets whilst continuing their studies and then return to the company when they have graduated as officers.

Marlow further supports the Academy by helping to upgrade and enhance facilities, as well as sharing industry expertise and knowhow.

To date, Ukraine is the largest provider of deck and engine officers for the company.

During the same visit, Marlow's representatives attended the qualification stage of the school competition Maritime All-Round, a social project aimed at familiarising and encouraging interest in local pupils in Kherson about the international maritime and shipping industry, as well as the wider marine world.

The competition was dedicated to the 185<sup>th</sup> anniversary of KSMA and supported by Marlow. Thirty-six teams and a total of 180 students took part, which included a number of tests of knowledge, skills and drills relating to maritime.



*KSMA cadets inauguration was attended by officials from Ukraine's Ministry of Education and Science*



*General Manager, Marlow Navigation, Captain Alfred von der Hoeh addresses the ceremony and parade of new KSMA cadets*

## CLIENT SEMINARS FOR MARLOW CREW

A number of client seminars for Marlow crew were held in key recruiting locations during 2019, including the Philippines, Ukraine, Russia, Poland and Bulgaria:

- Ahrenkiel Steamship, Hamburg
- ALP Maritime Services, Rotterdam
- Hapag-Lloyd, Hamburg
- Harren & Partner, Bremen
- Held Bereederungs GmbH & Co. KG, Haren
- M/Maritime, Athens
- SCG, Groningen
- Stargate Shipmanagement, Bremen

These seminars always provide an ideal platform to gather seafarers working for the same shipping client to review the year that passed, as well as look ahead. They help update crew on the company's latest news and developments, important industry updates and policies, operational, administrative and training matters, and encourage reflective learning sessions with open discussions on issues and case studies. Moreover, they provide an excellent opportunity for crew to network with each other more personally, and with shore-based staff.

"Working at sea for much of the year does not so much allow seafarers of the same company to get to know each other well if not working on the same vessel, nor

the names ashore behind the e-mails and circulars. Such seminars provide this opportunity, together with many creative team building exercises, workshops, as well as social programmes over and above the learning curriculum. In doing so, promoting a sense of belonging, enhancing team spirit and allowing seafarers to further adapt to the company's culture," commented Joint Managing Director, Marlow Navigation, Jan Meyering.

"We thank our clients for their continued support with these seminars during the year. Special mention should also be given to the staff at our agencies for their dedication and professionalism in helping our clients organise the seminars and making them successful events," added Meyering.



*4<sup>th</sup> Hapag-Lloyd conference in the Philippines for Marlow crew*

*M/Maritime conducts its first seminar for Marlow crew in the Philippines*



# NEWS & EVENTS - YEAR IN REVIEW



*Stargate / KESS seminar for senior officers in Gdańsk, Poland*

## STARGATE SHIPMANAGEMENT SEMINAR IN GDAŃSK, POLAND

During the annual Stargate Shipmanagement seminar in Poland, representatives from the company and from Marlow had the opportunity to visit and tour the specialised Ship Handling Research and Training Center in Ilawa.

This facility is one of only four such training centres in the world and is owned by the non-profit Foundation for Safety of Navigation and Environment Protection, which is a joint venture between the Gdynia Maritime University, the Technical University of Gdańsk and the City of Ilawa.



Newly designed Marlow Senior Officer Seminar taking place in Odessa, Ukraine



“Despite the many technologies and channels for communication available, you simply cannot replace the benefits of direct and personal contact.”

## WORKING CLOSELY WITH OUR LEADERS AT SEA

New seminars for senior officers took place at major recruiting locations.

In 2019, Marlow commenced its newly designed seminars for senior officers to provide information and training on latest company and industry updates, as well as encourage closer and more personal exchange of information and feedback between the sea going and shore-based management teams.

Five seminars were conducted in Ukraine and three in the Philippines, with a total of over 250 participants.

“These seminars create an ideal atmosphere for our senior officers and manning agencies, as well as representatives from the Limassol head office to get together, learn more about each other and promote proactive and valuable interaction in all areas of operations,” explained General Manager, Marlow Navigation, Captain Alfred von der Hoeh. “Despite the many technologies and channels for communication available, you simply cannot replace the benefits of direct and personal contact.”

Crew Operations Manager, Boguslaw Walczak from head office in Cyprus visits Ukraine to conduct the Senior Officer Seminars



*Senior Officer Seminars:  
updating crew and further  
building relationships and trust*



“ These seminars help further enrich the relationship and trust between our people at sea and ashore, which is no doubt pivotal for safer and successful operations ”



*Social hour during a  
Marlow Senior Officer  
Seminar in Ukraine*

# NEWS & EVENTS - YEAR IN REVIEW

## Key topics covered during these seminars include:

- Latest industry and company developments, as well as providing updates on recent policies and current priorities
- General exchange of information and feedback from the vessels - improving connection between seafarers and shore-based staff
- Common problems on board and emphasising areas where improvement is expected
- Incidents at sea and response procedures
- Crew evaluations, requirements and reporting procedures
- Crew training and mentoring
- Maritime resource management, and
- Media and social media awareness and handling.

The Senior Officer Seminar initiative was first introduced in Ukraine in 2007. Due to its success, it was rolled out to other agencies around the world, developing into a well-established and highly responsive event on the Marlow training agenda.

“These seminars help further enrich the relationship and trust between our people at sea and ashore, which is no doubt pivotal for safer and successful operations. They are an investment that further improves our crew management services by streamlining and enhancing efforts of ship and shore-based staff,” concluded Captain von der Hoeh.

## FEEDBACK FROM PARTICIPANTS

“*Interactive, realistic examples. Very good structure and well organised*”

“*Direct contact gives possibility for both sides easy and clear understanding of hidden problems*”

“*Great opportunity for communication with office and colleagues in live informal atmosphere. I received a lot of useful information and answers*”

*Senior Officer Seminars continue in Manila, the Philippines*



# NEWS & EVENTS - YEAR IN REVIEW

## UMTC SUPPORTING MARITIME SCHOOLS IN THE PHILIPPINES

Marlow's partner training centre in the Philippines, United Marine Training Center (UMTC) has recently introduced new consulting services to assist maritime schools with their educational curriculum and further improve student success rates.

This consulting is a first of its kind in the local industry and aims to further develop best teaching methodologies and practices in order to help enhance the standards of maritime education in the country.

This new initiative is primarily made up two key components: firstly, educational content packages to enrich material provided to students, including lesson plans, timetables, equipment framework, presentations, student activities, course handouts,

and high-grade assessment tools; and secondly a train-the-trainer programme, which involves consulting and training school faculty to improve course delivery, with tutorials, coaching and mentoring from UMTC's industry experts.

"Our new consulting service is all about collaboration, designing a learning environment at maritime schools that is closely aligned with latest commercial industry standards," said Training Director, UMTC, Anthony Noakes. "This will no doubt help improve students' chances to be employable in the international shipping sector after they complete their studies and training, as well as of course better prepare them in becoming highly competent seafarers."

## REGULARLY UPDATED: PRE DEPARTURE BRIEFINGS FOR CREW

Marlow's Pre Departure Briefing (PDB) version 6.0 was released in early 2020, updating seafarers and preparing them for their assignment at sea.

Marlow's PDB acts as a learning curriculum for seafarers' daily work. It aims to familiarise crew with latest industry and company insights, procedures and requirements, as well as information on best practices and general guidance.

Classroom based lessons take place at major recruiting locations throughout the network. It is mandatory for all Marlow crew to undergo this pre departure briefing, either via a classroom course, or as self-study at an agency or online via the dedicated Marlow Crew Portal.

"During the course of the year, we review and collect information that we believe will be useful and valuable for seafarers' assignments with Marlow. Each topic is carefully selected based on relevance and

importance. We bring the information across in an understandable, memorable and entertaining manner," explained Crewing Director, Marlow Navigation, Captain Frank Brodersen.

### Some of the main sections of the 2020 version include:

- Implementation of the IMO global sulphur cap, looking at the regulations, requirements, issues, implications and actions required for compliance
- Analyses on recent Port State Control reports
- Guidance for handling encounters with the press, as well as best social media practices
- Presentation on seafarer health and wellbeing aspects
- Important company milestones, namely the release of our new unique mobile application for Marlow Seafarers "CrewCompanion", and
- A new set of case studies based on real incidents at sea, which is a crucial way of learning and improving.

"The PDB, however, is not a one-sided conversation. We strongly encourage participation from seafarers in order to get the most out of the course, such as with open discussions, questions and feedback regarding any of the topics covered," added Brodersen.



*PDB 2020 training taking place for crew in Odessa at Marlow Ukraine*

CrewCompanion App for seafarers  
launched by Marlow Navigation

“ This new App has been created specifically for our seafarers to help make their working experience while ashore and at sea more dynamic and easier ”

## MARLOW LAUNCHES NEW APP CREWCOMPANION FOR SEAFARERS



At the end of March this year, Marlow Navigation officially launched its new mobile application for seafarers called CrewCompanion, available on both the iOS and Android platforms.

As part of the first release, this new mobile App offers a range of features that helps make a big part of the administration process between Company and Crew much easier and more efficient.

For instance, information and material is synchronized with a seafarer's device when connected to the Internet. Important alerts and notifications can also be enabled to keep a seafarer reminded and updated, such as with regards to new assignments, flight details, payslips and expiring documentation, amongst others.

This has already proven to be a valuable extra feature for reaching out to crew in a proactive and immediate manner during the recent novel coronavirus (Covid-19) outbreak, keeping everyone well informed and connected, whilst helping to further drive operational and safety outcomes.

For added convenience and in order to improve communications, important worldwide contact information relevant for each seafarer's assignment is also available via the App. Other key features include a vessel tracker, latest company press releases and the official newsletter.

Additionally, the App boasts a new innovative social tool called 'Who's Around', encouraging seafarers to locate, connect and chat with other fellow crewmembers in their vicinity.

"We are very pleased to have CrewCompanion up and running. This new App has been created specifically for our seafarers to help make their working experience while ashore and at sea more dynamic and easier. The technology has indeed already proven its worth during these globally challenging times," stated Joint Managing Director, Marlow Navigation, Jan Meyering. "The App provides a wealth of information and practical services digitally for our crew, as needed for their assignment at sea," added Meyering.

CrewCompanion is being further developed by Marlow's inhouse IT and software development team, with more useful and time saving features to come in later versions.

The App is exclusively accessible for seafarers engaged with Marlow Navigation, with secure login and is free of charge.

For more information and to download visit:  
[marlow-navigation.com/en/crewcompanion](https://marlow-navigation.com/en/crewcompanion)

## THE TRAINING VESSEL: AN APPROACH THAT MADE ALL THE DIFFERENCE

Last year, we presented an opinion piece on the importance of seamanship and why it must remain central to maritime training and development. The bottom line was that seafarers can only truly acquire this most crucial trait through real work experience at sea. This year, we continue this notion, looking at how the training vessel was fundamental here at Marlow in responding to this necessity for practical work-based learning.

### From head-hunters to planters

As one of the most globalised of all contemporary industries, one of the main challenges for the modern maritime industry is to recruit and blend officers from all parts of the world.

In the 80s and 90s, the number of European officers entering the maritime industry increasingly became insufficient to maintain the demand. The shortage was and indeed still is most acute among senior officers, but of course maintaining the skills base requires a continuous flow of talent, from cadets to operational level officers and then reaching management level.

Seeking new sources for talent to be the future officers, inevitably resulted in a shift away from the traditional OECD maritime nations such as Germany, Norway, the United Kingdom, the Netherlands, the USA and Japan to emerging maritime labour states, such as the Philippines, Ukraine, Russia and many other crew supplying countries. These countries provided an attractive and in fact vital option for many shipping and crew management companies, including for us here at Marlow.

However, our mission was to bridge the gap and harmonise standards across the board, so to ensure smoother interaction later on board between the different cultures and professional backgrounds. The solution was plain and simply to invest in recruiting and training talent from within our own structured programme. Essentially, passing on the same standards of maritime education and training, as well as wider knowhow and experience gained in a Northern European context to these new labour markets. The benefits would be significant.

We would be fostering our own talent from vast and high potential markets, as opposed to say 'hunting' for experienced seafarers from an already small and depleting supply. This also meant seafarers would be more surely embedded into the company's culture and that of our clients and at the same time, becoming far more dedicated and loyal. In turn, this significantly increased crew retention rates, making seafarers more skilled, proficient and experienced, whilst further ensuring performance quality and safety.

The concept that made all the difference in preparing this new talent for the job ahead and provided cadets the opportunity to develop their careers was the **training vessel**.



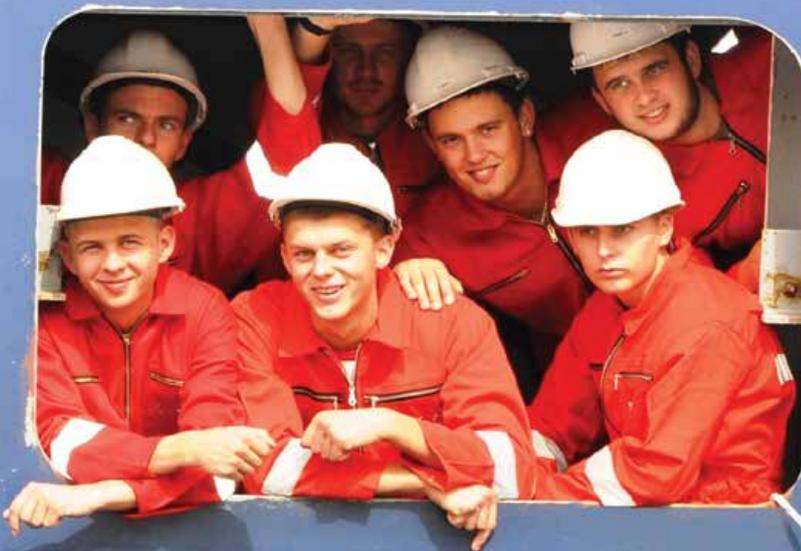
*Marlow's crew managed vessels provide cadets  
the vital training they need at sea -  
Photo courtesy of Second Officer, Yurii Savkov*



*The Emsstrom training vessel launched in Leer, Germany in 1998 to train prospective deck and engine officers, as well as ships' cooks*



The experience gained from the *Emsstrom* training vessel in Leer, Germany later became the foundation for many future successful training initiatives at Marlow, including the establishment of dedicated training centres in the Philippines and Ukraine, as well as future training vessels in the fleet for both Filipino and Ukrainian cadets.



*Marlow Training programme establishes bonds and camaraderie, whilst promoting teamwork, hard work and seamanship*

## Industry comes together to create a solution

In 1998, we launched the *Emsstrom* training vessel in Leer, Germany, together with 96 of our partner ship-owning and ship managing companies, as well as several external training clients and government organisations. The vision was to educate and train prospective deck and engine officers, as well as cooks from the Philippines, providing them both theoretical and practical onboard training in a Northern European environment.

Deck and engine cadet programmes were structured in three blocks, including three to four months maritime studies ashore and practical training on board the training vessel, followed by three assignments of six to seven months on board a ship within Marlow's crew management fleet. At the end of the third block, cadets underwent a final examination.

Cook trainees had only one block of dedicated training before deployment as a ship's cook, since they already had prior experience in restaurants or other hospitality establishments. Their training was very specific and practical, focusing on preparing them for working independently on a ship.

Over the many years, this programme proved to successfully improve the quality of maritime knowledge and prepare competent prospective Filipino officers for the challenges at sea. The empirical evidence for this success was the exceptional success rate of *Emsstrom* programme graduates.

The experience gained from the *Emsstrom* training vessel in Leer later became the foundation for many future successful training initiatives at Marlow, including the establishment of dedicated training centres in the Philippines and Ukraine, as well as future training vessels in the fleet for both Filipino and Ukrainian cadets.

## Supporting seafarers on their career journeys

The concept, and essentialness of the training vessel is rather unique to shipping. All trainees take on a lot of responsibility in their job, requiring highly specialised knowhow, skills and experience – areas that are not easily, or even at all possible to teach in a classroom.

Such learning must be done in a way that is very practical, rigours and hands-on, as well as in a working environment that provides the opportunity to tackle real-life situations. The training vessel offered this, helping young aspiring seafarers/cadets develop professional and personal attributes, as well as act as a springboard for careers at sea.

This type of training allows cadets to learn and build invaluable soft and interpersonal skills, including independence and taking on responsibility. No doubt, living and working far from home is perhaps a daunting challenge at first, both physically and emotionally, but it is precisely one's ability to overcome this and strive to succeed that builds character and maturity.

Meanwhile, together with their batchmates, they establish bonds, camaraderie and a sense of belonging, to each other, their mentors and to the company.

It is an irreplaceable experience; a true apprenticeship. It is this connection which is very much central to maintaining the everlasting tradition of good teamwork, hard work and seamanship. Simply put, the fellowship at sea.

## Real-life benefits of the training vessel

- Prepares cadets for the demands and expectations of the working life at sea
- Improves maturity and confidence and teaches valuable soft skills, such as self-discipline and reliance, perseverance, teamwork, leadership, communication, organisational and problem-solving abilities
- Acts as a link between college, maritime training, and the maritime industry
- Provides an opportunity to put the knowledge and skills gained in class into practice
- Offers a kick-start in experience, something hard for anyone to attain when starting out in a profession

# EQUIPMENT & FACILITIES

## LNG BUNKERING & FUEL GAS SUPPLY SIMULATOR

Sulphur Cap 2020 regulations have entered into force and the use of alternative fuels for ships and methods for environmental pollution prevention on board are full steam ahead.

Although there are still few ships with dual fuel engines, demand for training crew on dry ships in IGF code requirements exists. So that our crew are thoroughly and expertly trained on handling such systems, we have invested in new tools, including simulator software installations at our training centres in both Manila and Kherson. Both installations were sponsored by the International Maritime Training Fund (IMTF).

The LNG Bunkering & Fuel Gas Supply Simulator is based on the LCHS 5000 TechSim platform of Wärtsilä Voyage Limited. This new simulator is designed to raise training levels on LNG bunkering and supply systems and therefore also raise onboard safety levels.

The scope of simulation includes operations related to the use of LNG fuel, from bunkering to gas fuel supply and engine operations, as well as troubleshooting. It provides a realistic representation of the user interface for remote and local operating posts, animated 3D visualisation to facilitate situational awareness training, as well as the possibility of a set of scenarios for tutorials and assessments.

The simulator is designed for use in basic and advanced IGF code training with the following objectives:

- Familiarisation with LNG Bunkering and Gas Supply system
- System layout and flow diagrams
- Taking fuel tanks in and out of service
- LNG bunkering procedures
- LNG fuel storage and securing
- LNG fuel delivery to the engines, and
- Emergency Response.

The LNG Bunkering model includes a Bunkering Station, Tank Connection Space with the fuel gas preparation equipment, Dual Fuel Engines with Gas Valve Unit, Nitrogen system, Ventilation system, Gas and Fire detection systems, Process Control Automation System and Safety System.

The model is certified by ClassNK for usage in basic and advanced IGF code training according to STCW 2010 Manila amendments Code A/ Table A-V/3-1 and A-V/3-2.



*Animated 3D visualisation  
of the LNG Bunkering Station*



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# TRAINING COURSES & SEMINARS

Each *Training Journal* edition, we present some of our newly introduced courses at both our partner training centres, Kherson Maritime Specialized Training Centre (KMSTC) in Ukraine and United Marine Training Center (UMTC) in the Philippines.

The new courses we select to highlight here are essentially developed in response to industry demands. Together with crewing operations, Marlow's training department examines and identifies what areas in particular need addressing, such as root causes to incidents, lack of competence, skills or knowhow, but also of course due to the introduction of new technologies and regulations. These courses then help upgrade seafarers accordingly and enhance their proficiency. Similarly, new courses are also designed on request and in close cooperation with our clients.

Of course, all these training courses listed here are priority/required by the Company, and over and above the mandatory requirements as stipulated by the STCW convention.

In addition, there are also a good deal of new and revised pre-sea training courses introduced each year as part of the curriculum for the various structured Marlow cadet programmes, including deck, engine and electrical, as well as ship's cooks.



*Work Permit, Enclosed Space Entry & Rescue at KMSTC, Ukraine*

## NEWLY INTRODUCED COURSES AT KMSTC

| COURSE NAME   | PILOT DATE    |
|---|---------------|
| Bulk Carrier including Draught Survey and Stability Course (upgrading training) | JANUARY 2019  |
| Work Permit, Enclosed Space Entry & Rescue                                      | JANUARY 2019  |
| Port State Control Awareness  | FEBRUARY 2019 |
| Basic H2S (offshore safety training)  | OCTOBER 2019  |
| Senior Officers Evaluation Program  | OCTOBER 2019  |
| Voyage planning using ECDIS   | MARCH 2020    |
| ECDIS ChartWorld Type Specific Training   | MARCH 2020    |
| Marine Fuel Management  | JUNE 2020     |

## NEWLY INTRODUCED COURSES AT UMTC

| COURSE NAME  | PILOT DATE     |
|--|----------------|
| Rope Inspection  | JANUARY 2019   |
| Bridge Watchkeeping Refresher Training for Management Level Deck Officers  | JANUARY 2019   |
| Bridge Watchkeeping Refresher Training for Operational Level Deck Officers | JANUARY 2019   |
| Practical Engine Skills  | JANUARY 2019   |
| Engine Room Watchkeeping Refresher Training for Operational Level          | FEBRUARY 2019  |
| Voyage Planning using ECDIS  | MARCH 2019     |
| Engine Room Watchkeeping Refresher Training for Management Level           | MARCH 2019     |
| MEG 4 Mooring Course   | JUNE 2019      |
| Work Permit, Enclosed Space Entry & Rescue                                 | AUGUST 2019    |
| Offshore Crane Operator Stage 1, 2, 3                                      | AUGUST 2019    |
| Mooring Winch Testing and Operational Maintenance                          | SEPTEMBER 2019 |
| Ship Fitters Course  | SEPTEMBER 2019 |
| Knuckle Boom Crane   | OCTOBER 2019   |
| Hydro Blasting Safety Awareness and Operation                              | NOVEMBER 2019  |
| ECDIS ChartWorld Type Specific Training                                    | FEBRUARY 2020  |

*Bridge watchkeeper refresher training at UMTC Manila*



# TRAINING COURSES & SEMINARS

## TRAINING FOR SULPHUR CAP 2020

The Global Sulphur Cap entered into force on 1 January, 2020. This has been a drastic change to shipping, necessitating a great deal of preparations and actions, even if there are still lots of uncertainties and ongoing debates with what solutions are best now for the short term, and for the longer term.

What has not been a matter of debate, however, is the need to enhance crew training in whatever approach is taken. Seafarers must receive special consideration, as ship owners and managers, and the wider industry largely rely on their skills for managing the change and ensuring smooth implementation, such as with handling new compliant fuels on board vessels and scrubber technologies.

At Marlow, we have developed a 2-day classroom-based training course for marine engineers called "Marine Fuel Management", together with the Institute of Professional Development (IPD) to the Admiral Ushakov Maritime State University (AUMSU) in Novorossiysk, Russia.

This course has been running since September 2019 for engineers in the South of Russia in the Krasnodar region, as well as the Rostov-On-Don area. Course instructors are active Chief Engineers from the international tanker fleet and part time tutors at AUMSU.

### The course covers all major topics, including:

- International fuel standards for maritime industry; Sulphur content limits, NOx, SOx reductions
- Low Sulphur fuels: features, the effects of using LS fuel; Fuel refining principles

- Changeover procedures
- Fuel bunkering systems and the bunkering procedures
- Fuel cleaning and conditioning systems: design principals, features and operations
- Oil record book - requirements, responsibilities, procedures, and
- Interpretation of fuel oil analysis reports, among other subjects.

This fuel management training course is taking place at major recruiting locations in Europe, namely Ukraine and Russia. In preparation for this and to continue the training thereafter, a number of prospective instructors from Marlow Ukraine attended the train-the-trainer course in October at IPD AUMSU in Novorossiysk.

At the company's other major recruiting location, the Philippines, marine fuel management training has already been in place for some time now at partner training centre, United Marine Training Center (UMTC) in Manila. The course is provided by RJH Consultancy, Alfa Laval's authorised training provider on Alfa Laval installations.

An E-Learning version of the course has also been developed and will be uploaded on the common LMS platform in order to be accessible by all engineers in remote locations who cannot attend the classroom training, as well as by crew in other countries, such as Poland, Romania and Bulgaria. Additionally, Marlow is part of the International Maritime Employers' Council (IMEC) working group, developing a generic e-learning course with Virtual Reality (VR) modules on scrubbers.



*Marine Fuel Management classroom-based training for Russian engineers at IPD AUMSU in Novorossiysk*

New cook training course in the Philippines,  
Nutritional Balanced Healthy Menu



“A nutritional, well-balanced diet is absolutely vital for the wellbeing of a ship’s crew, promoting a healthy lifestyle and helping to reduce lifestyle-related illness”

## TRAINING TO ENHANCE CREW HEALTH & WELLBEING

A new training course has been introduced for Marlow’s Filipino cooks to upgrade their knowledge and skills in preparing and serving healthier meals for crew.

This 3-day course, called Nutritional Balanced Healthy Calendar Menu is added to the standard training matrix for existing ships’ cooks, as well as cook trainees.

Approximately 1,000 active Filipino cooks within the Marlow fleet will undergo the training. This training will take place at Marlow’s partner training school in Manila, United Marine Training Center (UMTC), which provides ideal culinary facilities, including a variety of fully-equipped kitchen environments, baking areas, and a mess hall for serving meals.

“A nutritional, well-balanced diet is absolutely vital for the wellbeing of a ship’s crew, promoting a healthy lifestyle and helping to reduce lifestyle-related illness,” said Training Director, Marlow Navigation, Joern Clodius.

“It all begins with creating awareness on the importance and impact of nutrition and healthy eating,

together with the right education and training, so to provide cooks with the necessary knowhow, abilities and experience to prepare the best meals,” added Clodius.

Creating an environment of healthy eating, as well as fitness on board, is in the best interest of all seafarers and should be encouraged by the ship’s command.

Eating a balanced diet is an important part of maintaining good health, and helps improve quality of life. Organs and tissues need proper nutrition to work effectively. Without good nutrition, the body is more prone to disease, infection, fatigue, and poor performance.

At the core of a balanced diet are foods that are low in unnecessary fats and sugars and high in vitamins, minerals and other nutrients.



## CONSIDERING WHAT COUNTS - MEDICINE & HEALTHCARE AT SEA

This year, healthcare and medical information very quickly came to the forefront for all industries around the world. The outbreak of the Coronavirus (COVID-19) demonstrated the fragility of many aspects we normally took for granted and the entire world was faced with significant challenges. In the maritime industry, ships were quarantined, ports closed, and crew changes restricted. **CEO and Founder, Marine Medical Solutions Dr Jens Tülsner, MD** provides us with an analysis on the current state of medicine in the industry and the new possibilities with smart digital solutions, written amid this global pandemic.



For some time now in shipping, 'Digitalisation' has been on everyone's lips. Whilst many technical and nautical aspects are already using such technologies, this is rarely the case in medical related areas.

Ashore, digital technologies have been providing extensive possibilities for medical care for some time. This includes monitoring one's daily physical strain, sleep and movement, Big Data and Artificial Intelligence to support reliable diagnosis, and precision medicine for individualising treatments based on genetic and life-environment data... the list goes on.

These standards should now be made more readily available at sea, organised in collaboration with shore-based medical expertise and delivered via a dedicated platform, as offered, for example, by Marine Medical Solutions and Tritan Software. This is an enterprise solution specifically designed for the maritime industry. It allows companies to centralise and optimise medical information and reporting, whilst also gaining critical real-time insights to help better monitor and take action where needed.

### Medical training and education

To put it into perspective, medical care on board is the Captain's responsibility – actually one of the few positions in international law which is entitled to perform a diagnosis and intervention without a medical license.

As part of nautical training, there are various mandatory medical courses that officers must complete and update at regular intervals. This provides basic knowledge and training in medical care whilst at sea. However, experience has shown us that the knowledge curve flattens out over time, all the more so if the area in question is beyond the scope of one's own expertise or has been rarely been put to practice.

To help keep seafarers up-to-date, the new edition of the Medical Handbook at Sea, for example, has QR codes that provide direct access to the necessary forms and legal basis, whilst instructional videos explain medical measures step-by-step and in a way that is easily understandable. It would be a relatively easy task to have this further streamlined on a digital platform, where it can remain dynamic and updated, engaging and always available on board.

### Telemedicine

Currently, medical consultations via radio or e-mail are common practice at sea, however do have their obvious limitations. These can be overcome with the assistance of new digital tools.

Together with appropriate devices on board, vital data can be transmitted online with minimal bandwidth and IT support, and done so in a highly secure/private environment. Crucially, such medical teleconsultations are supported by audio and visual, thereby bringing the doctor on board, or at least much closer.

For instance, allowing a medical expert to better observe the situation, ask questions and interact:

- Suspected stroke: how can the extremities be moved?
- Burn: what is the extent of the injury?
- Procedures to be performed - online instructions, video switching, chat or telephony

With this, one can achieve more sound and efficient medical care on board, thereby also allowing ships to maintain their course more often when seafarers fall ill, such as not needing re-routing, accelerated travel, repatriation, or medical disembarkation.

Marine medical solutions now highly advanced; interactive, secure and more beneficial for shipping companies



“ Digital smart solutions allow shipping companies to manage their medical operations while connecting and collaborating with information across their entire fleet of ships, crewmembers and medical providers ”

### Case management and reporting

The basis of every good diagnosis and treatment, apart from the examination, is personal medical history, such as prior symptoms, previous diagnostic findings and treatments. Particularly in maritime, where medical consultations or requirements are mostly done virtually, access to such data can be tremendously important for a more precise and quick response, especially vital in an emergency.

It can also form the basis for good and standardised documentation for other important operational matters, such as with legalities, further case processing, status and treatment of chronic diseases (such as arterial hypertension), traceability of infection chains, among other.

In the past, this information was seldom available on board. It can now be maintained and delivered securely via digital channels, for instance, integrated in a company's crew portal or other application and made accessible only when needed, of course in strict compliance with data privacy regulations.

Likewise, a ship's **Medicine Chest** can also be handled remotely, with added control from ashore, such as for procurement and in providing clear and updated instructions for formulary and the use of each medicine.

Overall, together with the assistance of medical professionals, such digital smart solutions allow shipping companies to manage their medical operations while connecting and collaborating with information across their entire fleet of ships, crewmembers and medical providers. This means more efficient processes and improved management visibility and control at all levels of an organisation, while mitigating the high risks involved with overseeing medical operations.

*Telemedicine at sea - brining the doctor on board, or at least much closer!*



# FACTS & FIGURES

## TRAINING KPIs MAINTAIN MOMENTUM

As always, hereafter we present some key performance indicators (KPI) in training and development for the year that passed. On the whole, figures remain relatively consistent compared with the previous year/s, which certainly illustrates the ongoing commitment and tangible realisations of our company's training initiatives.

Essentially, Marlow Training is made up of two main pillars, both of which are pivotal in supporting our company's crew management operations.

The first being training which covers present necessities, assuring existing crew continue to upgrade their proficiency in technical skills, knowledge and expertise. Each year, a significant number of total course attendances are recorded at all our major recruiting locations, namely the Philippines, Ukraine, Russia and other countries, as well as those done via distance learning. In 2019, this totalled over 176,000 and included mandatory training, priority/required by the company, and those that are recommended (see **figure 1.1**).

Indeed, training not only helps to produce competent seafarers, but also to advance careers and in turn build crew confidence and loyalty in their company and profession. Importantly for our clients, this also

means their ships are managed by dedicated, more experienced and dependable seafarers, enhancing overall quality and safety.

The second pillar is a more longer-term investment that secures a steady flow of new talent entering the stream and develops them into the next generation mariners. These recent figures also remain resolute, with over 700 new intakes into the training programme, including sponsored and non-sponsored for deck, engine, electro-technical and culinary (**figure 1.2**).

Perhaps most decisively – at least as also identified by the wider industry and official organisations as one of the areas with greatest challenges – is the expected mid- to long-term high demand yet shortfall of manpower in deck, engine and electro-technical officers. As a company, we also directly respond to this challenge via our well-established training and career development programmes. The success rate of trainees and crew, in other words, following through their set career path in good time is reflected in the number of promotions. Last year alone, there were almost 200 operational level officers promoted to management level, 568 prospective officers promoted to operational level, and 74 culinary trainees to cooks.

## UPGRADING TRAINING ALL MAJOR WORLDWIDE LOCATIONS

Fig. 1.1



# 176,042

TOTAL COURSE ATTENDANCES IN 2019

# 677

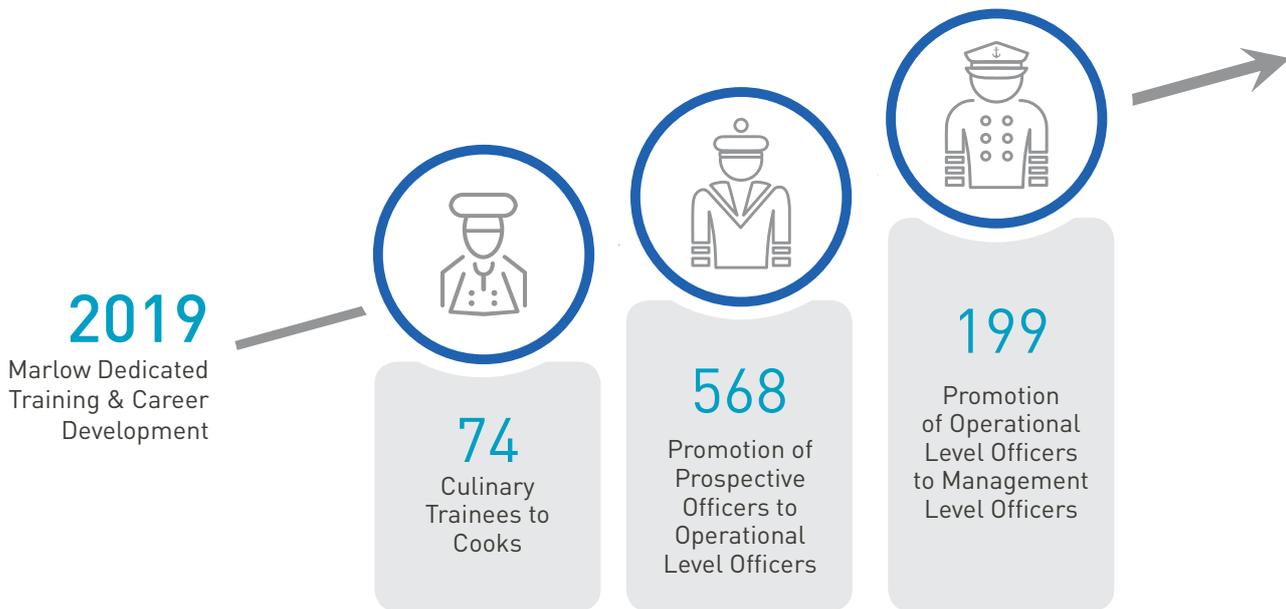
AVERAGE ATTENDEES PER DAY

## TRAINING INITIATIVES INVESTING IN HUMAN CAPITAL

Fig. 1.2

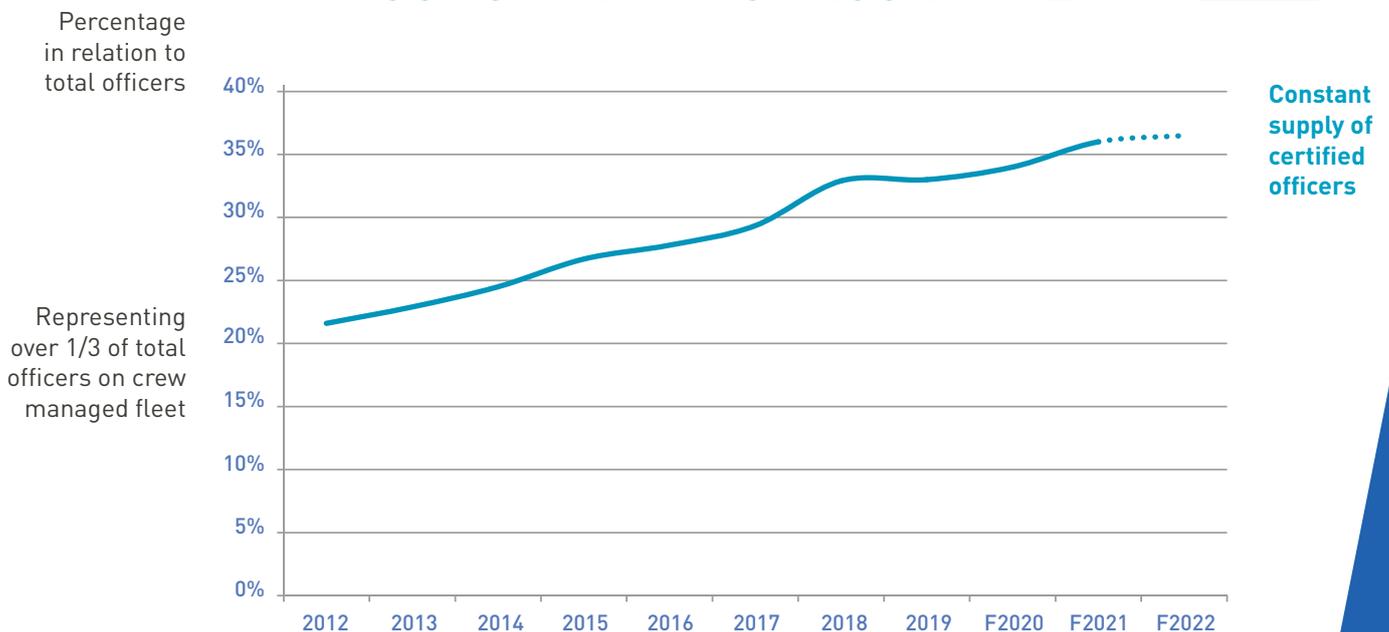
### 716 Total New Intakes

Sponsored & non sponsored, including deck, engine, electro-technical & culinary entering the Marlow training programme



## OFFICERS ON BOARD OUT OF TRAINING PROGRAMME

Fig. 1.3



# FACTS & FIGURES

More specifically, we can also see the long-term success reflected in the KPI of officers on board out of the training programme (fig. 1.3), where the trendline has been consistently growing over the last decade and more. Since some time, well over one third of all Marlow officers currently on board come from within the training programme, and this trend continues its organic move upwards. This ensures that as a company, we can continue to produce our own officers from within a specifically designed and controlled system, thereby also remaining self-sufficient in this important need.

Overall, active seafarers out of the training programme reached just over 5,100 at the beginning of 2020 (fig. 1.4). The consistency of this KPI throughout the years, together with high crew retentions rates in general, can also be largely attributed to the success of training initiatives - which is of course an investment in human capital.

The Philippines continues to represent the majority of these seafarers, making up around 57% of total active seafarers out of the training programme. As a crew management and training company, we are well established here in one of the world's largest market for producing seafarers. The Marlow brand is synonymous as a well-respected and preferred employer, not least due to its devotion to training and development,

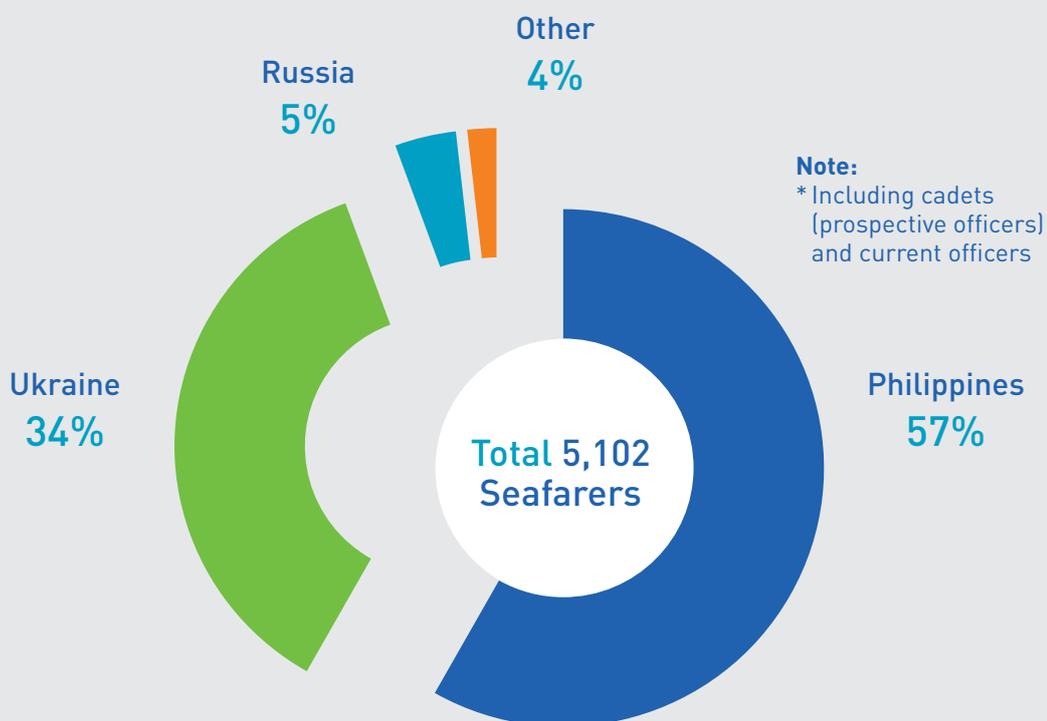
but also more widely for its focus and care on people and their communities. Our training activities here in the Philippines are strong and vast, backed by a close partnership with the highly acclaimed United Marine Training Center (UMTC) in Manila, as well as longstanding relationships with some of the top Maritime Education and Training colleges throughout the country.

Ukraine follows at 34% share, remaining stable compared to the previous year. Similarly to the Philippines, our presence here in this other vital seafaring country is second to none, reinforced by our long-established affiliation with training partners Kherson State Maritime Academy (KSMA) and Kherson Maritime Specialized Training Centre (KMSTC). For many years now, Ukraine has been the largest supplier of deck and engine officers for the Marlow Group, and so our training here also very much caters to this demand, being a lot more geared towards higher-end and specialised training courses for officers.

A growth of active seafarers out of training programmes also comes from Russia, since our fairly new cooperation with Admiral Ushakov Maritime State University (AUMSU) in Novorossiysk continues. This collaboration is mainly for the training of cadet and marine engineer officers.

## ACTIVE SEAFARERS OUT OF TRAINING PROGRAMME BREAKDOWN BY NATIONALITY (AT JANUARY 2020)

Fig. 1.4





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A VR training solution to operate and maintain ship engines



© Aaron McKenzie Fraser

“If you’ve never been involved in virtual reality before, it’s quite an immersive experience”



© Aaron McKenzie Fraser

Rob Gair, Head of Government Services at MAN PrimeServ Canada, presenting the MAN 32/44 CR engine in the virtual space.

## PRACTICE MAKES PERFECT IN VIRTUAL SPACE, TOO

A first-hand report of an hour spent in the engine room of a Royal Canadian Navy patrol ship – in the virtual world. Testing a first-of-its-kind virtual reality training solution in the marine sector reveals a thoroughly immersive experience that comes as close to reality as one can get. The author tried not to trip over the virtual tool box.

### ***About the Author:***

*Roman Elsener is a North America correspondent for international news media since 1996. He is based in New York.*

### **More than basic training**

MAN Energy Solutions has been contracted by the Royal Canadian Navy (RCN) not only to provide power generation and propulsion systems for the RCN's new Joint Support Ships (JSS), but also to come up with a VR training solution for sailors who will handle the engines onboard the Arctic Offshore Patrol Ships (AOPS) under construction at Halifax Irving Shipyard.

I meet with Rob Gair, Head of Government Services at MAN PrimeServ Canada, to test the solution that will train the men and women of the RCN to operate and maintain the ships' engines. Rob is the main man behind this project and he will guide me through my virtual experience. "If you've never been involved in virtual reality before, it's quite an immersive experience. As you move through the virtual world, you forget all external realities," Rob says and promises: "We've really ramped it up."

# TRAINING OPPORTUNITIES

## Testing the engines

I am handed the gear, put on the wireless VR glasses, and pick up the controller. Upon the start of the training, I find myself in the middle of an endless plain. A pale light at the rim on the horizon suggests a sunrise. A flash, and I stand on a stairway leading into the engine room of an AOPS, equipped with two MAN 32/44 CR engines.

Rob directs me to the engine control interface, a virtual computer, used to operate the engine, as well as providing information on how the engine is performing. I start up the engine as prompted, and for now, everything seems to run smoothly. By pointing and clicking the controller to a point on the walkway, I can get to any location in the room – and beyond: While checking out the very real looking metal casing of the engine in the VR space, Rob encourages me to “just poke my head through it” and take a peek into the inner workings of the engine.

The first instinct is to resist banging my head on the metal – then some part of my brain manages to deliver the message to the neural centres that I am in a virtual space. I get on my knees and poke my head through the casing and look at the beautiful inner workings of the engine, a sight you could never get in a real environment.

I hear a change in the sound of the engine, and hurry back to the dashboard to see and hear alarms and witness the engine shutting down. The lube oil pressure is dangerously low, and Rob tells me, in an effort to move forward, that I have to replace the pump. Now, that involves a wrench and unscrewing quite a few nuts and bolts. It takes this writer, used to a keyboard and a two-dimensional screen, a few minutes to adapt to the new environment, but with the help of Rob’s comments from the real world, even I figure out how get the engine running again.

Judging by the faces I see when I take off the VR goggles and come back to the real world conference room in Halifax, it becomes evident that by no means I would make a good candidate for sailor on an AOPS in the Royal Canadian Navy, though. Was it the moment when even my friendly instructor Rob couldn’t understand why I just wouldn’t step over the imaginary VR toolbox? Or when I just wouldn’t see that a rag I forgot after cleaning the turbo charger was catching fire?

For me, those rather embarrassing moments in the virtual AOPS engine room taught me the crucial lessons of the training experience: While not everybody is suited to it from the get-go, practice makes perfect, in virtual reality, too.





© Aaron McKenzie Fraser

“As you move through the virtual world,  
you forget all external realities”

## VR and AR technologies at MAN Energy Solutions

Digitalization plays a key role in future shipping and energy generation enabling completely new business models and technologies.

Pioneering next generation VR and AR technologies for the maritime and energy industry, MAN Energy Solutions has set up a specialist department that is taking care of target-oriented multimedia, augmented and virtual reality solutions.

“Virtual Reality opens new doors and offers a broad application spectrum for further optimizing processes and increasing efficiencies. We will make virtual as well as augmented reality to an essential part of our product development, presentation, production and use,” says Tobias Knödler, Head of 3D Multimedia, Augmented & Virtual Reality, MAN Energy Solutions.

# FUTURE CHALLENGES

## REDEFINING TRAINING TODAY AND FOR THE FUTURE

COVID-19 could have a great impact on the future of maritime education and training. To be more precise, the global pandemic has ignited major changes in all business routines, and fast-tracked many areas from being simply an additional assistance or in trial stage to an absolute necessity. In other words, technologies that were non-essential quickly became indispensable.

Even if the pandemic is short-lived, as we all hope, such ways will in any case need to continue to some extent, remaining functional and up-to-date so to act as a strong contingency plan for possible future disruptions, but also for genuinely exploring new approaches in providing training for the modern seafarer. More specifically, blended learning and communication tools have the ability to continue training and assessment of seafarers remotely. This applies to both upgrading training for seafarers and as part of the curriculum for cadets in our structured training programmes.

Fortunately, at Marlow such methods have been in practice since some time, whilst we've also always taken a proactive position, continually looking for new ways, technologies and systems, for doing things and staying ahead of the curve. For instance, developing customised E-Learning content, integrating various online communication tools, including video conferencing and collaboration platforms for sharing information and workflows. These are in addition to our portals for crewing and training, as well as our recently launched mobile application for seafarers, CrewCompanion.

Certainly all this must go further and herein lie the critical future challenges and opportunities for the immediate term – that is, the provisional substitution and perhaps longer-term transition of instructor-led

training (ILT) in classrooms to more online, dynamic and virtual solutions. Of course, certain areas which demand more physical skill development must continue to use simulators, workshops and practical exercises as much as possible. However even with this, the seafarer's physical presence in the classroom can still be greatly reduced by the option of having theoretical parts of the ILT presented online, thereby avoiding unnecessary travel and accommodation expenses, as well as enhancing efficiency.

### Prepping instructors & learners for online tools

The technology for online lessons and training already exists and are even rather advanced. As such, a great deal of the short-term challenges will essentially be focussed on ensuring instructors and learners adapt well to the new virtual classroom environment.

Firstly, we must define what skills both must have to conduct these online lessons and prepare them for it – for instance, which platforms, necessary device resources, how to use instructions, troubleshooting and support, updates, security, etc. Both will also need to understand the advantages and drawbacks of this type of training.

The first and main advantage is that online learning can be done from anywhere, obviously crucial during times of lockdown requirements or even just restricted travel. Furthermore, it can save time, allow the user to repeat a lesson so to better digest, there is consistency in lessons, scalability in growth, possibilities for personalisation, and data-driven analytics, such as with more sophisticated tracking and reporting.

Meanwhile, traditional classroom instructors will have to become just as good facilitators online. This means developing new skills for addressing the key drawbacks of such technology. For instance, being able to deliver the lesson whilst also moderating feedback with live chat and encouraging learners to get involved and interact with the instructor and peers virtually. Other important areas include taking a different approach with online class assessments so to prevent cheating and substituting the lack of face-to-face communication with other innovative techniques suited for the digital world.

Such skills will no doubt come in handy even after the pandemic and when things return to 'normal', since some amount of education and training will still be done remotely.



## Designing courses to suit the 'new order'

Another challenge will be for course designers to create more engaging E-Learning material, including content that is more dynamic and better suited for mobile devices, as well as localised for different nationalities.

Multimedia and in particular streaming video courses on demand should play a central role, as should microlearning courses, interactivity, gaming and testing modules. Further ahead, machine learning technology could be better harnessed to adapt courses and make the overall experience a lot more targeted for each seafarer/cadet.

The same holds true for creating courses and making them available for self-study. This allows both seafarers at sea and those based in more remote locations ashore with limited connectivity, the possibility to maintain some level of their training, updates or even just added learning when offline.

By the same token, advancement in artificial intelligence (AI), augmented reality (AR) and virtual reality (VR) will continue to transform maritime education and training. Training content producers and course instructors will also need to be well-versed on using this technology themselves so to create and deliver the most suitable and best experiences.

## Cultivating a Learning and Training Ecosystem

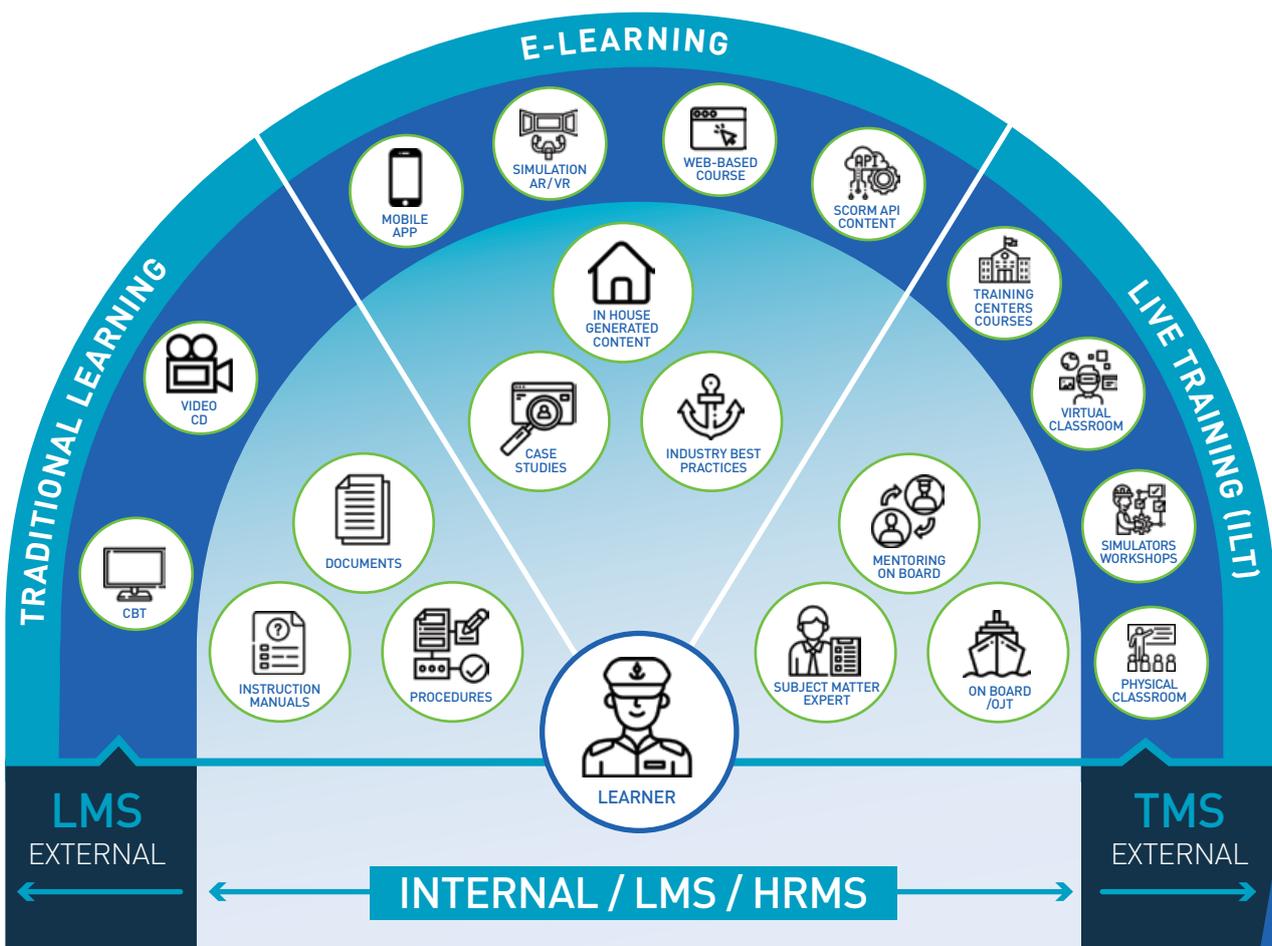
Finally, we are in the process of further exploring the possibilities of a dedicated initiative for facilitating a learning and training ecosystem. Essentially this is a system of people, content, technology, culture, and strategy, existing both within and outside the company, that supports both formal and informal learning and training. Just as a living ecosystem has many interacting species, environments, and the complex relationships among them, a learning and training ecosystem has many people and pieces of content, in different roles and learning contexts, and complex relationships.

The people, culture, initial content and even a good deal of the technological capabilities already exist at Marlow, and at our partner training centres. What we must define is the strategy for streamlining these assets as part of the ecosystem and ultimately on to a feature-rich, user-friendly and intuitive Learning Management System (LMS). At the same time, we also need to implement a comprehensive Training Management System for automating administrative aspects and enabling real-time monitoring and processing, from order to invoice, thereby increasing all-round efficiency.

Another interesting aspect to such an ecosystem is leveraging social learning networks, offering additional access to knowledge and skills, as well as the opportunity to interact with peers virtually in a learning context.

# SEAFARER LEARNING ECOSYSTEM

Learning & teaching methods which work best for seafarer training





*Captain Grunau, helping to lead the way with maritime education and training in the Philippines*

“ It has been an incredibly exciting time in maritime training over the last decade, having made great strides forward in both technology and teaching methodologies ”



*Understanding your class and encouraging their feedback and engagement is critical for their learning*

## ADVANCING MARITIME TRAINING IN THE PHILIPPINES

### **Training Consultant, Marlow Navigation, Captain Peter Grunau.**

Peter began his career in 1978 as an AB and Bosun whilst completing studies in Maritime Science, majoring in Maritime Transportation from the University of Applied Science in Emden. He then sailed as Officer on various types of vessels and later as Chief Officer and Master for almost a decade. In 1999, he was appointed Managing Director of *Emsstrom* training centre in Leer, with a special focus on Filipino Prospective Officers whilst also completing studies in Meteorology at Friederich Wilhelm University in Bonn. Since 2013, Peter has been Marlow's special Training Consultant in the Philippines, as well as offering counsel and support to training centres in other locations.



### ***What are some of the major successes and steps forward with the training of Filipino cadets in recent years?***

There have been many advancements with cadet training here in the Philippines, very much in line with global maritime industry standards.

For instance, implementing more hands-on and problem-solving orientated lessons, as opposed to say strictly textbook theory and multiple choices. This is over and above the base of applied sciences for technical lessons, namely mathematics and physics. The general approach of education and training has also been focussed on building on cadets' existing knowledge, but of course in a lot more depth and as per industry requirements.

A big impact in maritime education and training over recent years is the availability and use of analytics and insights. If you cannot measure it, then you cannot manage it. Today, we have highly sophisticated tools and methodologies for analysing data and being in a much better position to respond accordingly. For instance, evaluating and addressing certain areas of a particular cadet's weaknesses, or strengths for that matter.

Overall, it has been an incredibly exciting time in maritime training over the last decade, having made great strides forward in both technology and teaching methodologies. Looking ahead, the remarkable arsenal of tools available and expected to be deployed in the short- to mid-term will greatly benefit training and safety in our industry.

### ***How about some of the present challenges surrounding the training of Filipino cadets?***

Globally, one of the biggest challenges in our industry is perhaps the harmonisation of maritime education and assessment at the grassroots level across all nationalities. Considering each country's wider educational system and infrastructure, as well as other complex reasons, this is a major target. However, the closer standards can be aligned worldwide, the better the outcomes, or rather the greater the efficiency in achieving these outcomes.

At Marlow, we respond to this challenge and continually bridge the gap by bringing our extensive professional expertise in maritime training from Europe and integrating this with the existing setup here in the Far East. From close cooperation with local stakeholders, namely Maritime Education and Training colleges, transitional and ongoing development programmes, to maintaining state-of-the-art training facilities.

Importantly, our ability to closely assimilate cadets' class and workshop-based learning with critical real-world experience on board diverse vessel types is also a major advantage in helping to progress their training in good time. For instance, this is especially beneficial in the training of many practical aspects of a mariner's job, such as working effectively with Electronic Charts, Radars, Automatic Identification Systems (AIS), Fuel Oil Management, Reefer Technology, and Ship's Mooring Operations, among other, as well as working well with other crew.

# INTERVIEW



*Over the years, Captain Grunau has supported hundreds of Filipino cadets successfully graduate and progress in their careers*

***Based on your experience, could you highlight any noteworthy differences in education and training for the different generational groups over the years?***

Generations differ in their learning abilities and interests, so naturally maritime training must also adapt to this.

When I started 42 years ago, the main focus was on scientific approaches to solving problems, applications and using tables and diagrams, and focusing on analytical abilities. Also, most of my generation sailed already as an AB for a couple of years prior to starting any academic studies, which you could argue helped seafarers learn the hard craft of seamanship first and foremost. Older generations seemed to be a lot more content, perhaps even somewhat limited to exploring new areas in their career, so training was also rather reactionary and more conservative.

In contrast, younger generations are far more eager to diversify their skillsets, very tech savvy, and extremely comfortable with multitasking and processing a lot of digital information. They also want to see and do a lot more in much shorter time. All this means they crave and even need varied learning methodologies. Otherwise known as blended learning, which essentially means using more than one technique for delivery.

Education and training should be proactive, interactive and highly engaging, as well as of course evolving as tools and applications also advance.

***In what way do you believe training needs to evolve then in order to keep up with the industry's dynamic environment, and the future seafarer?***

No doubt maritime training and education must and does continue to re-invent itself to keep up with the rapidly changing shipping environment, as driven by technological advancements and new regulations, as well as a new generation of learners.

Training will become more targeted, as needed for different vessel types and different equipment for the various departments, e.g. automations, specialised engine training for main and auxiliary engines, fuel management, and ballast water management. Further to this, adaptive learning will continue to be a key approach, where training programmes are automatically tailored to each individual trainee. This can apply in both the delivery of educational content, online or in class, as well as in the enhancement of skills, such as with special scenarios in simulator and virtual reality training.

Overall, this targeted and adaptive learning approach, together with the array of tools available today and that will be in the years ahead, will allow shipping companies to train their seafarers more exclusively and in a way that gets the best out of each individual.

***Behind all of the highly sophisticated maritime equipment and technologies is the most important element of all – the human element. What are the more traditional aspects and/or essential soft skills that must also be embedded into the training curriculum in order to produce highly proficient and professional mariners?***

The individual behind all these equipment and technologies – the seafarer – is still the most important aspect, as they are the ones making the decisions. The skills of present and future seafarers must go beyond what machines are capable of, so to ensure safer and more efficient operations. Such soft skills are also crucial in many other areas of a mariner's profession.

Measuring and enhancing soft skills is a fundamental component to maritime training, ensuring seafarers can be fully ready and highly proficient. Some key areas we focus on include:

- Communication skills
- Leadership
- Team management and versatility
- Critical thinking, authority and assertiveness
- Emotional intelligence, such as keeping calm in difficult situations and the ability to think under pressure, and
- Organisation and planning.

***How do you keep cadets and seafarers motivated and focussed during their studies and training?***

Very good and important question. The best training lessons, books, materials and even technology won't get students excited about learning and willing to work hard if they're not motivated. So for sure motivation is a key factor for their success, and we as instructors can play a decisive role in providing and encouraging this.

Motivating cadets and more experienced seafarers for that matter, is not as easy as it sounds, particularly since all people are motivated differently. Therefore, getting to know your people well, their limits, strengths and weaknesses, and harnessing what interests them is a big step forward. This puts the instructor in a better position to be able to relate and reach out to each individual. Being a role model and mentor is also important in the learning process. Guiding and being there for them, answering their questions and concerns, and showing them that you are aware and care.

In terms of teaching, it is important to clearly define objectives and goals – all students want and need to know what is expected of them in order to stay motivated and aim for this. Meanwhile, not all students will respond to lessons in the same way, therefore using a variety of blended and active teaching techniques provides the opportunity to reach out to all in the class. More specifically, lessons that are engaging and interactive are fundamental for learning nowadays.

Although guidance and rules from an instructor is important to keeping trainees on track, and for discipline, also giving them responsibility and a sense of control as well as creating an open environment that encourages positive contribution, is one of the best ways to keep them engaged and motivated.

***Many mariners seek to become trainers themselves. Generally, what standout qualities and experiences would you say makes one into a good teacher, and what else is required for them to reach an excellent professional teaching standard?***

Without wanting to sound discouraging, the truth is not every mariner can be a good instructor or trainer.

To be a good instructor and reach top-quality professional teaching standards you must have good didactic abilities, meaning good teaching methodology, paired with good administration and organisational skills, such as for preparing courses, designing documentation, grading and making qualitative comments on assignments/assessments.

It goes without saying that you should be an expert in your subject matter, with both strong theoretical and practical foundations. In maritime education and training it is recommended that instructors who are teaching high level courses have experience in rank for the subject. For example, an operational level officer cannot teach management level officers in admiralty law. But being a good teacher goes far beyond this. You must have the ability to work well with young students as well as with adults. This means excellent communication skills, empathy, and the ability to connect.

Finally, it is important to highlight that to become an instructor, one needs to undergo specific training. Initially this lasts for about 13 months, but of course one must always continue to learn and improve. At Marlow, we have many company initiatives that concentrate on exactly this, developing and raising the skill levels of our trainers, so to refine and further enhance the quality of their teaching.



**THE A-Z OF SHIP MANAGEMENT**



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# FOR TRAINING

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