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# Disruptive Times in Maritime Training

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Disruptive events bring possibilities with them. It is up to us all to turn Threats in a SWOT analysis into Opportunities. There are many sad examples in history when opportunity knocked, but no one answered the door. Kodak is of course one infamous example. My favorite Kodak-moment though, is the physician Ignaz Semmelweis (1818 – 1865). Semmelweis introduced the, at the time, revolutionary and outrageous idea that doctors should wash their hands. Between doing autopsies and assisting women give birth! Semmelweis' idea was tested, proven to be effective, but nevertheless rejected! Semmelweis died before his idea was accepted by the larger medical community.

During the 2020's no one would protest against washing their hands, but there might have been other solutions to problems that have been rejected. No doubt the offshore industry has struggled with a new kind of challenges. Just like ship crews all around the globe, the platforms have struggled with the logistics of crew changes. Passing borders, different regulations in different areas and lack of flights have no doubt called for creativity among the crewing departments – not all have been able to meet the challenge. Albeit the grade of seriousness is lower, also training facilities, such as Aboa Mare, have faced challenges during the last year. How have we then tried to turn the threat into an opportunity? How have we been able to take advantage of the disruption at hand?

When physical contact is to be avoided, thoughts automatically go to remote operations, e-learning, virtual reality and so on. We have all seen futuristic images of people wearing helmets that provide the virtual environment and authentic experience for the person wearing it. No doubt such a helmet can create an environment that gives the person a learning experience that is as close to reality as possible – the person is totally immersed in the virtual setting, for example on a navigating bridge. In the future participation in this kind of fully-immersive simulations at Aboa Mare will maybe be done from homes or even vessels, by seafarers who are wearing virtual reality helmets connected to the Aboa Mare simulator environment. Maneuvering will be conducted with for example a virtual tablet.

VR-helmets might be the goal, but we are not there yet. So far, we have worked with what is plausible for the time being. The pandemic has forced people entering a country to stay in quarantine. Aboa Mare, together with ABB Marine & Ports, succeeded in making the most of that time. Remote simulations were used to enable efficient usage of the time in quarantine. The course participants could e.g. familiarize themselves with, and practice using, the equipment relevant for vessels operating with Azipod® propulsion, already before coming to the simulation center. For example, virtual

Sebastian Roschier, Navigational Specialist at ABB doing a maneuvering test during an ABB Azipod® propulsion H883 course.



levers as well as ECDIS-displays and visuals were streamed from Aboa Mare to the hotels. The familiarization with the equipment is a must and has so far been done on site. Remote simulations thus reduce the time course participants must be present in the simulation center, and can reduce time spent away from either home or vessel. Shorter time away reduces the costs for training.

The varying needs of our customers both require and enable different ways of realizing training. In the above-mentioned example with “training at the hotel”, three courses – all important for the customer – were realized during one two-week period, only partly at the training center. The H883-Azipod®propulsion vessel operation course, the H938- Azipod®

propulsion vessel operation in ice - course, and finally the basic level Polar Code training could all be certified to successful participants. By staying a few extra days, also the Polar Code Advanced could have been completed, adding a fourth competence to the same training period. Further onboard experience is of course needed for the Advanced Polar Code certificate.

Another smaller-scale example of using VR is the virtual emergency steering simulator. The bridge team can be navigating on a bridge simulator, but the actual steering is conducted by a person operating the simulated, or virtual, emergency steering. The person operating the steering uses virtual instruments and tools, such as pliers, to carry out the orders from the





bridge. Eventually the steering will be possible to conduct from outside the center, also fully immersed and not only with PCs like today. The emergency steering room can be at Aboa Mare or maybe even onboard! The benefit of this may seem negligible, but it is nevertheless important to practice these procedures. With more functions like the one in the example possible to be remotely simulated, in an environment as close to the real experience as possible, the list of people who needs to gather in the same facilities at the same time gets shorter. All small improvements add to cost-efficient and efficient training.

These developments also support maritime

training on the whole. In Finland maritime students can get a portion of their onboard training covered by simulations. Aboa Mare can also provide simulator training that gives the 30 required days onboard-experience for the Advanced IGF certificate. As the only provider in the world.

Some might argue that simulations are not “the real thing”, but it is also a fact that an OOW gets to experience a lot more e.g. traffic situations in a planned simulated 1-hour scenario than during a 4-hour watch on for example the Atlantic Ocean. And it is not possible to provide navigating in ice, in real ice, for everyone who needs the experience.

Simulations are a safe and efficient alternative.

At Aboa Mare we all feel that virtually anything is possible in virtual training (pun intended). We can not do everything at the same time, but every journey begins with a single ... simulation?

The journey has begun and Aboa Mare wishes you warmly welcome to icy conditions and other challenging maritime experiences!

**Aboa Mare - Maritime Academy and Training Center**

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Port manoeuvre during an ABB Azipod® propulsion H938 course.