



VMT lifeboat simulator

# Keeping it real

Lifeboat simulator training is expanding its reach in the offshore sector, reports **Kathy A Smith**

Lifeboat safety is always a concern, but accidents and deaths during drills, particularly during the launch and recovery process, have severely curtailed live exercises – at least for offshore production platforms and oil rigs in jurisdictions such as those of Canada, the United States, the United Kingdom, and Norway.

Typical lifeboat drills do not allow for real-life emergency situations to be practised and the sheer logistics of performing drills at offshore oil facilities is difficult at best. This renders lifeboat drill simulation even more important.

Canada-based Virtual Marine Technology (VMT) is a lifeboat simulation training manufacturer founded in 2004 that develops high-fidelity simulation systems to augment maritime training for oil and gas operators, defence contractors, maritime training organisations, and shipping companies.

Each simulator is purpose-built and fully customised for every client, outfitted with the exact equipment a coxswain would find on his or her own lifeboat at their particular rig, installation or floating production,

storage and offloading facility. The entire lifeboat is not replicated, only the coxswain’s position. Customers can choose from a full motion or static simulator.

Images are then created that exactly replicate the oil rig or offshore facility.

“The equipment works with our software to make the lifeboat look like it’s fully engaged in emergency exercises while participants sit in a very safe environment and learn to practise using their own equipment and emergency protocols,” said VMT sales and marketing vice-president Alfred Whiffen.

“Even with the radios, trainees are prompted to speak back and forth to the person who is controlling the oil rig or production facility.”

There are two main elements to the simulator. The first is computer-based training (CBT), which introduces the trainee to the simulator, the equipment, how it works and how to interact with it. Tests are done to make sure trainees understand the various safety mechanisms.

A pre-launch inspection training module takes participants through a process for

recognising the safe and unsafe condition of some of the mechanisms onboard. Trainees have to be able to tell the difference between the two before they even get in the simulator and start doing emergency scenarios.

Once participants have successfully completed the CBT portion, they are prompted to get into the simulator for the first emergency scenario. Approximately 12–15 scenarios follow. They are increasingly difficult, from calm conditions to high sea states with limited visibility. Faults are also introduced, to the point where all of the simulator equipment stops working. “This is how participants build muscle memory and become really comfortable with the equipment so they’re not trying to figure it out in a real emergency,” said Whiffen.

VMT provided two simulator systems to Prosafe in the North Sea for its *Safe Boreas* and the *Safe Zephyrus* accommodation vessels in early 2015. The Prosafe simulators use real controls from the Harding Safety FF1 200 freefall lifeboat to replicate the coxswain positions.

According to Whiffen, Prosafe’s training protocols direct personnel to undertake drills following noon and dinner meals. “Many of the people on board have shown significant interest in using the systems because they want to know how to evacuate in an emergency if the need arose and the coxswains were unavailable. That’s the benefit of having the systems on board. The activity can be stressful but it’s a fun activity as well because you know you’re safe.”

Although lifeboat simulation training is not yet an industry requirement, Whiffen believed some entities are recognising the benefits. Regulatory bodies such as the Canadian Association of Petroleum Producers require lifeboat coxswains to complete a training refresher once a year at an approved training facility in lieu of launching boats offshore. In some European countries, it is every other year. Whiffen has found that many oil and gas operators are approaching regulators to adopt this type of training.

“In order for these systems to be recognised, and in order for companies to fully adopt them as a new alternative, oil and gas operators and contractors would insist that regulatory organisations recognise they are legitimate for the purposes that we suggest they are,” said Whiffen. ◀

## Key points

- Danger of live exercises highlights simulator importance
- Offshore crew are seeking out VMT simulators