

# Port of Tilbury Upskills Operators Using Vortex Simulator



The Port of Tilbury (London) is the largest of 8 ports owned by Forth Ports. It is London's major port, the largest multi-modal port in the South East, and third largest port in the UK. It also plays a critical role in the community.

As the Port of Tilbury's Learning & Development Manager and Director Tilbury on Thames Trust, Simon Harper's mission is to ensure that everyone working in the port is working safely and competently, through the Port of Tilbury's award-winning Logistics Training Academy.

He also has a particular focus on providing training and support to the veteran community.

CM Labs' Vortex Port Equipment Simulator, running Ship-to-Shore and Straddle Carrier Training Packs supports all aspects of Harper's missions.

Adopted in the context of a new initiative to provide a skills development program for military veterans, the impact of this innovative approach to training was almost immediate.

"In the port sector, safety is paramount," he says. "It is a dangerous environment, and simulators are a great way of reducing training risks. It's safer to train new recruits on a simulator than to let them move capital equipment around a live grid with the potential to hit others — or to get hit themselves."

***"Having the simulator really does ensure that after three weeks, people are getting through the training system. It eliminates the opportunity cost of having a non-skilled operator on site."***

## Eliminating opportunity costs

The Port of Tilbury has a robust training and assessment regime in place, with process reviews, recertification, and retraining taking place any time there is an incident.

### The Organisation

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### The Situation

As with all ports, operational requirements mean equipment is not always available for training, which meant it could take almost 2 months for new recruits to get through a 3-week training program.

### The Solution

With a Vortex simulator the Port of Tilbury has standardized their training program at 3 weeks— and revolutionised their approach to monitoring, measuring, and increasing productivity.

In addition, for new operators, there is an intensive three-week training program, after which they are "buddied up" with more experienced staff. The tremendous benefit of the simulator, says Harper, is that it is always available, in particular when the real equipment or the trainers themselves are tied up by operational requirements.

"Prior to the Vortex simulator, new operators could be seven weeks into a program, and still on basic training. Having the simulator really does ensure that after three weeks, people are getting through the training system. It eliminates the opportunity cost of having a non-skilled operator on site."

Harper adds that the simulator brings the theory portion of training to life for new operators, which in turn means they are much more confident when they get on the real equipment.

"Those who have been trained on the simulator seem to have fewer low-level incidents than those that weren't trained on a simulator. You can make a mistake in a simulator, where of course you can't do that on the real machine. And one of the things we say in the training world, is the best way to learn is through your mistakes."

The other advantage for the Port of Tilbury is that weather no longer interferes with training — the Vortex simulator makes training available at night, or during heavy wind, rain, snow, or icy conditions that would otherwise bring training to a halt.

## Reduction in incidents, accident levels, and costs

The simulator has an impact on reducing incidents and accident levels, says Harper. This reduces the risk to both the trainers and the environment in which they're being trained.

"From the trainee perspective we are definitely seeing improvement through the simulators. The other big thing, is that there's a definite reduction in tire wear and fuel costs as a result of training on the simulator."

Port of Tilbury is also using the Vortex simulator to audit incoming operatives for an assessment of their capabilities and coordination.

***"It improves our training success rate enormously, and it's revolutionized our approach to monitoring, measuring, and increasing productivity."***

"We definitely check them out on the simulator," Harper explains. "You might have people who say 'no problem, I can operate plant equipment, I'm sure I can'. But once you put them on the simulator it's clear that they face challenges in that respect! It's become part of our recruitment process and a very, very valuable one. It improves our training success rate enormously, and it's revolutionized our approach to monitoring, measuring, and increasing productivity."

For the Port of Tilbury, an improved training success rate has significant business value in terms of reduced employment costs as well as recruitment costs. "It makes the training process more efficient. What we've seen is that our people are better equipped when they get on the real machines. You can make mistakes on the simulator, without the stress of suffering the disciplinary repercussions of making that mistake on a real machine. It's just a more effective training environment. The Vortex simulator is based on a scientific approach, and the benefit of that is how realistic it feels."

The other training innovation that is built into the Vortex simulator is a robust reporting system.

"With the Vortex simulator you can generate a reporting graph that shows how many times a trainee pulled back and forth to try and get a box into the guides of the ship. A lot of people like to think 'I was quite smooth on that'.

"But the graphical evidence is a powerful tool for disabusing them of that view! That's the benefit of the assessment capabilities of the simulator. It's objective, whereas clearly humans are subjective."

One thing that is not subjective is the impact the simulator has had on the Port of Tilbury's recruiting processes. "The military are fascinated by what we were doing with simulation," Harper says. "It attracts veterans to our programs, and it's a remarkably effective tool for recruitment."



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