



Use Case: Synthetic Environment

Every day, the Royal Canadian Navy stands guard to serve our country. To make training more accessible and efficient, we have been working with the crews in Halifax, Quebec, and Ottawa to develop authentic immersive skill-building experiences that simulate high-risk environments or situations that would be otherwise difficult to access or costly and logistically challenging.

Using our technology, StellarX, we created customized Spaces with immersive training scenarios in which individuals and teams can get realistic hands-on training, in an environment that's safe and conducive to team-building.



Client

Royal Canadian Navy

Industry

Military

Technologies

Virtual Reality,
Digital Twin,
Encrypted Multiplayer
Network

Challenge

Accessibility

Solution

Collaborative crew
onboarding

Benefits

- More knowledgeable
- More prepared
- More responsive
- More confident

Our cost-efficient solution not only facilitates the onboarding of new recruits, but its interoperability helps teams collaborate in real-time so they can onboard new recruits easily, manage crisis situations with efficiency, improve day-to-day operations, and navigate the changing tides of life at sea.

Being there... without actually being there

So, to make training for the Royal Canadian Navy more accessible, we created a complex nautical environment as well as custom multiplayer scenarios, meant to help with the onboarding of new recruits and upskilling of the crew. For example, one of the scenarios simulates weighing an anchor, which requires interoperability, procedural knowledge, and sequential ordering of the steps to accomplish in order to succeed.



The simulated environment includes a Digital Twin of a **FFH339 ship**, along with its artillery, anchoring system, and most of its heavy equipment. The life-like replicas provide the learners with a meaningful learning context and a realistic hands-on immersive experience.



The onboarding experience was made available not only in Virtual Reality, but also on **desktop**. This cross-platform approach allowed for better accessibility, eliminating the need for complex and costly equipment; trainees can still collaborate together, whether they are using a VR headset or a simple computer.

The scenario allows students to be more prepared, efficient, and allows them to gain a better understanding of the situation at hand in a context that is relevant, relatable, and safe. As such, readiness and preparedness make training safer as crew members are exposed to the safety risks in a virtual environment before being exposed to the real-life environment in which costly mistakes could occur.



Results

After 18 months, the Royal Canadian Navy found that our immersive skill-building solution improved training accessibility overall. Not only did it allow for the crew to hone their skills in a high-risk environment, but the virtual nature of our solution allowed for each member to get more training time. Prior to adopting StellarX, training was done aboard an actual ship, which was quite costly and logistically challenging to schedule. Since having adopted StellarX as an immersive skill-building solution, the Royal Canadian Navy can increase the number of hours allocated to hands-on training as their Spaces can be customized with their own assets, and shared with as many trainees as they please. Furthermore, training teams in a virtually simulated authentic context that exposes them to the real-world risks has helped prevent accidents.

Testimonials

“ [Practicing using VR is great], especially when you are starting your career [and you’ve] almost never been [on the field]. It gives people the opportunity to familiarize with the environment. ”



- Royal Canadian Navy Crew Member

“ It is a great training tool to familiarize and prepare for when you board a real ship. ”



- Royal Canadian Navy Crew Member

Related links

