

United States Navy NSST, US

Multi-channel visualization solution for US home ports



“Barco’s high-definition projection technology will play a significant role in the Navy’s NSST program, generating seamless multi-channel visualization for crucial training.”

The Navy’s NSST program provides seamanship and ship handling training to helmsmen on various platforms. Until recently, the NSST program lacked sufficient simulation technology of its own, and was forced to contract training time from another organization. This proved time consuming and ineffective. In an effort to expedite and improve training in America’s home ports, the Navy decided to purchase a set of maritime simulators.

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Multi-channel visualization solution for US home ports



Meeting the Navy's needs with simulation-specific visualization

Through a strategic partnership with Kongsberg, Barco designed and engineered a seven-channel projection system to match the Navy's simulation objectives. The system was deployed at naval bases in Mayport, Pearl Harbor, and San Diego, with additional systems slated for deployment in Norfolk.

Barco's Sim 5R projector that drives the system is designed specifically for simulation. The system boasts a number of advanced features which integrate seamlessly, to ensure the most accurate and immersive training experience possible. To maintain uniform blending at high brightness levels, Barco's Sim 5R comes equipped with both optical and electronic edge blending technology, so that across the various channels, one continuous image is guaranteed all the time.

The system also features DynaColor inter-channel color matching and optimal multi-channel geometry correction; these features ensure that imagery is projected evenly across the channels without color flaws or frame delays. Similarly, Barco's linked Constant Light Output keeps brightness and contrast variables at uniform levels.

Efficient tools maintain uptime

State-of-the-art peripherals also help to achieve image continuity. Barco's xRACU control system allows users to operate, calibrate, configure and diagnose systems across multiple channels to maintain uniformity, while specially engineered Barco software makes alignment simple and intuitive. In addition, the mechanical structures which house the SIM 5R projector and peripherals were custom-engineered by Barco, ensuring that the entire system functions smoothly and without discrepancies.

Accurate training delivers many benefits

Through the power of Barco's sophisticated visualization technology, the Navy will reap the benefits of high-fidelity maritime simulation. The multi-channel SIM 5R projection system is perfect for advanced, realistic training, while Barco's intelligent peripherals ensure precision and ease of use. American Sailors will have the significant advantage of accurate training in safe harbors. There, they will be able to learn navigation techniques and methods which will prepare them for the challenges which beset them at sea.

"Barco is committed to the on-going development of cutting edge simulation technologies for defense applications," said Dr. Herman. "It is truly a privilege to provide for the safety and effectiveness of the men and women who work tirelessly to keep our nation secure."

Project recapitulation

Company

Name: United States Navy
Location: Mayport, Pearl Harbor, San Diego
Products and services: homeland security
Website: <http://www.navy.mil>

System specifications

Projection system: seven-channel SIM 5R system
Total resolution: 10 megapixel
Optimizations: DynaColor, Constant Light Output, electronic and optical soft-edge matching, and advanced warping
Control and setup tools: xRACU