

Naval Reserve Officer Training Corps Mariner Skills Simulator

NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION
ORLANDO FLORIDA

EXHIBIT FACT SHEET



Naval Reserve Officer Training Corps Mariner Skills Simulator

The Naval Reserve Officer Training Corps (NROTC) Mariner Skills Simulator (MSS) training system provides a configurable, scalable system to support Naval Service Training Command's requirements for NROTC midshipmen located at universities throughout the United States.

The MSS system provides interactive basic and advanced navigation training to students, allowing significant skills training before ever setting foot on a vessel. Rather than attempting to teach students theoretical aspects of navigation and ship handling, the MSS system provides them the opportunity for hands-on navigation operations. This prepares them to immediately function in the modern shipboard environment once they receive their commissions as Navy ensigns.

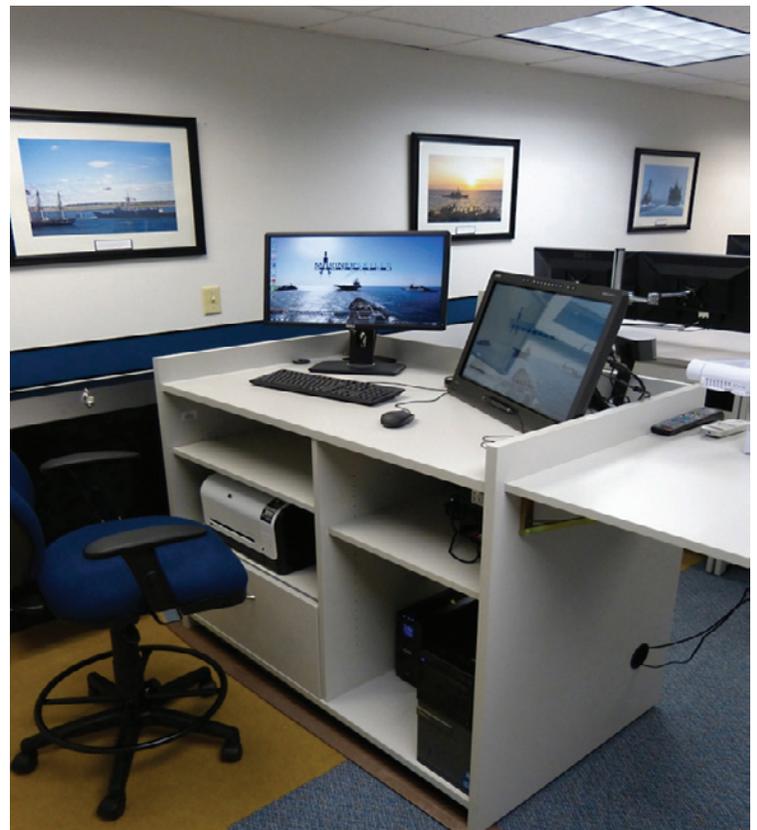
Each MSS classroom has linked computer stations. Each station has two monitors where a midshipman can see a digital navigation map that is similar to what they will see on radars and monitors on a bridge of a ship. The other monitor is an officer's view of a harbor, for example, from the ship's bridge.

Any harbor or port in the world that is used by U.S. Navy ships can be programmed into a training scenario. Additionally, weather conditions like fog or rain can also be used to challenge student skills.

At the heart of the system is the MSS navigation simulation software. The MSS software was built by leveraging an existing application, Submarine Skills Training Network (SUBSKILLSNET), which was designed and developed by the Naval Air Warfare Center Training Systems Division (NAWCTSD).



Instructors use MSS applications to design, save, load, and run maritime navigation scenarios. These scenarios provide NROTC students the opportunity to observe and participate in simulated demonstrations and exercises exhibiting specific learning objectives, knowledge, skills, and abilities. Scenarios are developed by instructors and consist of pre-selected parameters specifically identified as representative of a Navigation or Naval Operations learning objective. Some on-board simulation





applications provided with MSS include radars, GPS, and Helm Controls. This application creates experiential opportunities for students to focus on navigation, ship handling, and basic seamanship skills. All of these objectives are facilitated through the use of real-time navigation simulation and modeling.

Currently, 31 of 59 NROTC host universities have had the MSS system installed in their classrooms.