Sea Machines Partners With Maine Maritime Academy, MARAD to Include Intelligent Vessel Systems in Curriculum

BOSTON — Boston-based Sea Machines Robotics has partnered with Castine-based Maine Maritime Academy (MMA) and representatives of the U.S. Maritime Administration (MARAD)'s Maritime Environmental and Technical Assistance (META) Program to bring education about autonomous marine systems into the MMA curriculum, the company said in a July 30 release.

The MMA will provide instruction to cadets using the academy's 41-foot U.S. Coast Guard cutter-class workboat R/V Quickwater, which is being outfitted now with Sea Machines' SM300 autonomous control system, and a shoreside command station located on campus.

With education of the next generation of mariners being the primary focus of this partnership, the group will also demonstrate and document autonomous vessel technology's ability to increase at-sea situational awareness, safety, energy efficiency, operational performance and the environmental impact thereof.

MMA students will command and control the autonomous vessel in the Castine Harbor and surrounding areas from the shoreside station. While learning about autonomous systems and their impact on the future of the commercial marine industry, project managers and MMA students will measure the vessel's emissions output to determine the precise efficiencies gained, documenting differences among various engines, equipment and sea states. During these hands-on trials, participants will collect additional data about the vessel's situational

awareness and operational performance, predictability and safety during missions.

"The importance of this partnership extends beyond providing quantitative data for what we already know — that autonomous technology can be leveraged to improve vessels' operational efficiency, productivity and predictability while reducing at-sea navigation incidents. This project is ultimately about preparing future Merchant Marine officers with the training and skills they will need to command the digital, data-driven commercial fleets of the 21st century."

"The goal of this initiative is to expand Maine Maritime's current research portfolio and to provide our students with the opportunity to gain education and training on new smart-vessel technology,'' said MMA's Jennifer Norwood, assistant professor, marine transportation.