

FAIL SAFE

The United States Maritime Resource Center in Middletown is able to place ship's pilots in precarious situations where it's safe to fail while learning to avoid disaster.



Jacqueline Marque | Staff photos

Ken Chapman, above, operates the Full Mission Bridge Simulator on Wednesday at the United States Maritime Resource Center in Middletown. Below, Dale Harper of Newport simulates driving a tractor tugboat in Narragansett Bay.

By Matt Sheley
Staff writer

MIDDLETOWN

From its offices on Aquidneck Avenue, the United States Maritime Resource Center quietly is working to avert the next disaster on the high seas.

The independent nonprofit organization has offered instruction for thousands of jobs across the globe, everything from piloting liquefied natural gas tankers and tugboats to high-level courses in navigation, security and port and waterway design.

This week, the center provided the first class of its kind in the U.S. to a Louisiana-based firm building an LNG facility to power its vessels, an emerging technology center officials said was gaining in popularity because it is cheaper than traditional fuels and more environmentally friendly.

Margaret Doyle, the center's vice president of development, said it is rewarding to be at the cutting edge of the shipping industry, knowing the work done locally would help make a difference around the world.

"Ninety eight percent of the goods that come into the country come in via ship," Doyle said. "Shipping is the lifeblood of a lot of what happens in this country and the safer we can help make it,



the better for everyone."

Walking through the front door of the Maritime Resource Center — across from the ball fields at Aquidneck Elementary School — it looks like many other local office buildings, except for the pictures of tankers and other large ships on the wall.

Further inside, visitors are greeted by four simulators set up to mirror the real-life experience pilots would have on the bridge of a vessel.

Set up in separate rooms, each of the simulators features a number of computer screens designed to mimic the scenery of any major harbor, whether Newport, Boston or beyond.

But the simulator doesn't stop there. Rather, each can give pilots lifelike, real-time data including speed, draft and wind, along with other variables on the water, including other boats. Pilots also speak into a communication system, relaying their instructions and commands to the crew, just as they would aboard a ship that is underway.

There's even a function that can make the simulators seem like they're rocking and rolling in 7-foot seas, made possible using realistic graphics on the large screens.

Equipment and controls for each can be swapped out to give pilots the feel of their own bridge, rather

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than some generic facsimile with which they have no familiarity.

Each of the simulators can speak with the other, meaning the Maritime Resource Center can have four different pilots training and run a full-scale mockup, where each must react to and communicate with the others as they would on the water.

Capt. Rick Comeau, the center's vice president of simulation, training and research, said the firm has many examples of how the training done within its walls has made a difference outside them.

For instance, Comeau said, there was a near-disaster involving a tanker in Maine that had a total rudder failure. During hearings on the incident, Comeau said the pilot cited his training at the center for helping him respond the way he did to avoid something worse.

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“That’s the thing about the simulator. We’d rather have them make a mistake and crash here than out there,” Comeau said. “It’s great too because you can try different techniques and maneuvers to see how they work and take the risk out of using them for the first time on the water.”

“We have a saying around here that the only thing we damage in the simulator is an ego,” Doyle said.

Newport resident Dale Harper, who was going through one of the center’s tugboat training courses, said he was impressed by the entire exercise.

“From everything I’ve seen, it’s the closest experience you can have next to doing it in real life,” Harper said. “It’s been a really unique experience.”

The center does not instruct recreational boaters, but has worked with the Disney Cruise line as well as Shell, Chevron and the National Oceanic and Atmospheric Administration, along with other name-brand companies and agencies around the globe.

Asked about the controversy about LNG — once a hot-button issue locally in the wake of now-withdrawn plans to build a terminal in southeastern Massachusetts — Doyle said the industry has an impressive track record for safety, partially because of all the awareness. Doyle said one thing most people don’t realize is that LNG already is very prevalent.

“(LNG) is out there everyday on our roads and our highways,” Doyle said. “If you pass by a truck that’s labeled ‘liquid methane,’ that’s LNG and no one even

thinks about it.”

And with the rise of fracking, Doyle said the use of LNG to power marine vessels only is going to increase. She said that’s a trend the Maritime Resource Center already is seeing with the classes taught to Harvey Gulf, the New Orleans-based firm that operates America’s first LNG-powered vessels.

“A lot of companies are looking at LNG as a viable alternative because it’s much cheaper than traditional fuels and it takes care of the upcoming emissions standards (going into place in the summer of 2015),” Doyle said. “We’re trying to position ourselves in a way so that we’re at the forefront of the training that goes into piloting an LNG vessel, how to put out a fire should one ever break out and just about anything else.”

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