Coast Guard Uses New Tech for Oil Spill Response

Kirsten Trego talks about the USCG – Oil Spill Response: Tech Effort on the Horizon in the exhibit hall.

When most people think of the U.S. Coast Guard, they envision daring rescues at sea. But the USCG has a variety of lesser-known but equally important duties, said USCG Capt. (Ret.) Kirsten Trego.

During the Monday morning presentation, “USCG Oil Spill Response: Tech Efforts on the Horizon,” Trego discussed how the Coast Guard is the federal on-scene coordinator for oil-discharge cleanup in the coastal zone. That zone not only includes the nation’s shores, but also rivers, waterways, the Great Lakes and more.

“If something happens, we’re the best prepared,” she said.

The USGS has a 30-person team dedicated to oil-spill

responses. One of the team’s focuses is working with the oil and gas industry, state and local governments, federal agencies and academia to research how oil spills are evolving and how best to deal with them.

Trego said these research initiatives include the Great Lakes Oil Center of Expertise, which is dedicated to research, training and testing focused on freshwater and cold-weather conditions during an oil-spill response.

The Coast Guard is also increasingly relying on uncrewed systems to more quickly and safely respond to spills, Trego said. New technology like sub-surface remote sensing uses long-range autonomous underwater vehicles to detect oil under ice in the Great Lakes. There is also an air focus, including remote-sensing unmanned aircraft systems (UAS).

“And where the fun is, is the NOAA MESDIS Marine Pollution Surveillance Program from space,” Trego said. Remote-sensing UAS can see oil spills from space, characterize them and report the data.

Trego anticipates more UAS involvement in oil-spill responses in the future. “In the changing landscape of more oil exploration and more risk, traditional methods are no longer viable,” she said. “When spills happen, we need to be ready and available to handle them.”