

UM barge to help fight invasive species

New floating lab will test treatment systems for ballast water

By Candus Thomson, The Baltimore Sun

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The first step in stopping invasive species from hitching a ride into the Chesapeake Bay aboard cargo ships is determining how to make massive ballast tanks an inhospitable environment.

Maryland scientists hope they will find the answer aboard a new \$2.7 million floating laboratory that is able to test ballast-water treatment systems under real-time conditions. The 155-foot vessel is part of the research fleet operated by the University of Maryland Center for Environmental Science.

Ballast water is used by ships for stability at sea. Small marine plants and creatures in the water get pumped onboard in one port and discharged in another.

At Tuesday's dedication at the Inner Harbor, Rep. Elijah E. Cummings called the more than 150 invasive species in the bay — many traced to ballast water — "a significant threat."

"This is our watch. We want to leave a better world than the one we found on the day we were born," said the Baltimore Democrat. "We are creating a model for the world right here, right now."

The gray-and-white barge is one of three test platforms in the country able to assess the effectiveness of treatment options, such as ultraviolet light, chlorine and oxygen removers. Scientists can fill one tank on the barge with untreated water while using a second tank to conduct tests, said Janet Barnes, program coordinator. The mobility of the barge allows scientists to travel to ports around the Chesapeake, where salinity and other conditions vary.

Standards for ballast discharge are under administrative review by the Environmental Protection Agency and Coast Guard. In the meantime, companies here and in Germany are ready to have their technology put to the test by the barge, with vendors in China and France making inquiries, Barnes said.

"They realize they must come to the U.S. to test because they must meet the standards being set by the EPA and the Coast Guard," she said.

The ballast testing is one part of the university's Maritime Environmental Resource Center, created with the Maryland Port Administration, to help solve issues related to the international maritime industry.

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ABC 2 NEWS

Research barge to study treatment of ballast water, a key source of invasive species

THE ASSOCIATED PRESS

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BALTIMORE — University of Maryland officials say a new research barge will test treatment systems for ballast water, a key source of invasive species in the Chesapeake Bay.

The 155-foot research barge is to be dedicated Tuesday in Baltimore. The university's Maritime Environmental Research Center says the retrofitted barge will allow ballast water treatment systems to be evaluated in actual working conditions.

The center offers evaluation services for developers and manufacturers of ballast water treatment systems. The systems are designed to prevent the transport of non-native species in ballast water, which ships use for stability after loading and unloading cargo. The water is often pumped onboard in one port and discharged at another.

MARITIMEPROFESSIONAL.COM

The Epicenter of Ballast Water Treatment Technologies (for a Day)

by Joseph Keefe Sep 27, 2011, 8:58PM EST

The dedication of the Maritime Environmental Research Center's (MERC) barge-based Mobile Test Platform coincided perfectly with the latest meeting of the Great Lakes Ballast Water Collaborative Meeting at Baltimore, MD's inner harbor on Tuesday. What transpired there shed new light on both the coming battles and the developing collaboration in the world of BWT technologies.

For about eight hours on Tuesday, the collective world of invasive species and ballast water treatment technology experts, policy makers, classification societies, vendors and (seemingly) about half the PhD's on the planet were gathered in Baltimore's inner harbor for the dual purpose of (a.) dedicating the newest tool in the fight to standardize the effort to eradicate ship-borne invasive species, and (b.) the regular meeting of the Great Lakes Ballast Water Collaborative Meeting. If you missed either event, you also missed the opportunity to come up to speed on the latest in policy, regulatory and scientific progress (?) in the effort to standardize the global battle against invasive species. The dictionary defines the word epicenter as the point of the earth's surface directly above the focus of an earthquake, or, more simply, "a focal point." On Tuesday, both answers were more than appropriate.

In April, Dennis King and Patrick Hagen – two scientists actively studying the issue of invasive species – quantified the estimated cost of outfitting about 68,000 vessels with ballast water treatment systems at about USD \$68 billion, or roughly \$1 million per ship. I've since been told that this estimate is probably a bit high, but you get the general idea. The guesstimate timeline for installation of these systems is expected to spike between 2012 and 2015, with as many as 10,000 ships annually being fitted during that time frame. That's a lot of ships and a lot of money. And, that's why Tuesday was so important.