



Carcieri seeks 2nd boat for ocean research

URI's Bob Ballard, who is in the Atlantic Ocean exploring hydrothermal vents, joined the governor on screen.

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NARRAGANSETT -- Facing an image of oceanographer Bob Ballard being projected from a vessel in the North Atlantic onto a screen at the University of Rhode Island's Graduate School of Oceanography, Governor Carcieri yesterday launched a campaign to attract a second major research vessel to Rhode Island.

Carcieri told Ballard he had just signed a letter requesting that the National Oceanic and Atmospheric Administration base its exploration vessel Okeanos in Rhode Island.

For many years the research vessel Endeavor has been based at the pier at URI's Bay campus. In the past year the state has approved financial support to help keep the Endeavor here.

Ballard announced yesterday that plans were just firmed up for a 66-day expedition by the Endeavor next May and June to look for artifacts at the bottom of the Mediterranean and Black seas.

"I believe there is more history on the bottom of the oceans than in all the world's museums," Ballard said.

The Okeanos is a former U.S. Navy ship that is to be equipped by 2007 for ocean mapping, deployment of unmanned submersibles, onboard laboratories and real-time transmission of images and data collected during expeditions.

While other states no doubt will appeal to host the Okeanos (the Greek word for oceans), they don't have Bob Ballard, associate dean John Farrell said later.

Ballard, a professor at URI and director of its Institute for Archaeological Oceanography, is a leader at televising ocean explorations and showing the results to students. He is also an innovator in using unmanned submersibles.

Voters in November approved \$14 million for a new Marine Science Library and Undersea Exploration Center that could receive television signals from ocean explorations and pass them on to classrooms across the state.

Ballard was transmitting from the NOAA vessel Ronald H. Brown in the Atlantic Ocean yesterday, sending colorful images taken by unmanned submersibles of the Lost City, a field of vents and tall spires on a stretch of ocean bottom where the water is 200 degrees Fahrenheit and as caustic as a liquid drain cleaner.

He said there were three goals to the voyage: to do more science around the vents, to perfect the broadcasts to students, and to test \$1.5 million in video transmission equipment that will be based at URI.

The equipment is so sophisticated it can send images from the ship to a satellite in an eighth of a second. The satellite sends them to URI at the same speed. So a conversation with Ballard who was thousands of miles away was similar to talking to someone on a cellular phone. But at URI, a wall-sized screen also showed images that were transmitted just as fast.

Carcieri joined URI President Robert Carothers and other top administrators, as well as local students. Ballard's reports also were transmitted to dozens of Boys & Girls Clubs and aquariums and museums across the country.

"This is an extraordinarily exciting day for me," Carcieri said as the video conference got under way. "I always thought the things going on at GSO [Graduate School of Oceanography] had great potential. With Bob's excitement and enthusiasm and promotional capabilities, it is extraordinarily exhilarating to see this happening right here."

Carcieri said when the Inner Space Center that was approved by voters last year is combined with Ballard's efforts, "it opens up possibilities globally. I feel like we're at the beginning of a new era in ocean research."

Ballard, ever the promoter of ocean research and exploration, agreed. "Fifty one percent of the United States is under water, and we don't have a clue what's there," he said. "I see this expedition as a turning point in ocean exploration and I'm very excited it all worked."

For years Ballard has televised explorations to students across the country under the Jason Project.

The current trip is similar, but it is for scientists as well.

Chief scientist Deborah Kelley, an associate professor in the School of Oceanography and Astrobiology at the University of Washington, supervised the exploration from a studio in Washington state and appeared live on the telecast with Ballard.

Kelley appeared with Jeff Karson, a professor of geology at Duke University. The two did earlier studies on the Lost City, where tiny organisms grow in the dark, bathed in hydrogen and methane gas.

Kelley said they have found a number of organisms not previously known to science. During the presentation, a 4-foot-long wreck fish slowly swam by and bumped into one of the spires. It might have been blinded by the television lights, Ballard speculated.

Conditions in the Lost City, with hot rock chemically reacting with seawater, appear to be similar to those during the early formation of the oceans, Kelley said. So scientists hope that studying samples they bring up from the bottom will help them study the evolution of microorganisms.

The public can follow the voyage by going to <http://www.oceanexplorer.noaa.gov>, or <http://www.immersionpresents.org>, or <http://www.jason.org/lostcity>.

Online at: http://www.projo.com/news/content/projo_20050729_ballard.1d6e938a.html