EXPLORE

Introduction to Deep East 2001: Voyage of Discovery to Deep Sea Frontiers off the U.S. East Coast

By Captain Craig N. McLean
Director, Office of Ocean Exploration
National Oceanic and Atmospheric Administration (NOAA)

In the fall of 2000, the President's Panel on Ocean Exploration developed recommendations for a national Ocean Exploration strategy in which discovery and the spirit of challenge were the cornerstones. Global in scope, and initially concentrated in U.S. jurisdiction, the results of the program would be scientifically documented and widely disseminated. The report recognizes that within the last few decades, advances in undersea technologies have revolutionized the way we think about the oceans and the life within them. One of the four key objectives articulated in the President's Ocean Exploration Panel report is "reaching out in new ways to stakeholders to improve the literacy of learners of all ages with respect to ocean issues." (NOAA, 2000).

With the recent establishment of the Ocean Exploration Program within NOAA, there exists an unprecedented opportunity to focus literally millions of eyes on our essentially unexplored world of water that may hold clues to the origin(s) of life on Earth, novel energy sources, as yet undiscovered cures for human diseases, and previously unknown metabolic pathways. NOAA's ocean exploration initiative recognizes that the first step to understanding the oceans is the process of discovery. NOAA will embark on a voyage of discovery this fall using the Woods Hole Oceanographic Institution research vessel ATLANTIS and the nation's deepest diving manned submersible, ALVIN.

The Deep East 2001 Voyage of Discovery, scheduled for September 2001, will characterize deep-sea ecosystems located in three targeted areas from New England to Georgia. Deepwater coral communities inhabiting the submarine canyons off Georges

Bank and Bear Seamount will be characterized through video imaging, core sampling, and measurement studies. In Hudson Canyon, explorers will measure deep-sea biodiversity; assess the role of gas hydrates in continental slope stability; search for new organisms; and evaluate the role of sediment and pollutant transport on the canyon ecosystem that lies just offshore of New York City. Lastly, the team will, for the first time, study organisms on Blake Ridge that live on or near gas hydrate beds, an ice-like substance that occurs in much of the world's oceans under great pressure. Some estimates suggest that there is three times more fossil fuel locked up in gas hydrates than all other petroleum sources in Earth combined.

The Deep East 2001 Voyage of Discovery has great potential for generating exciting outreach and education opportunities and serving as a national model for the development of materials and related programs for all of NOAA's Ocean Exploration Program education efforts. Related objectives include:

- Producing materials that can be incorporated into school ocean studies curricula;
- Providing opportunities for teachers and students to participate in ocean exploration activities;
- Generating positive, accurate media coverage of the expedition and ocean exploration activities; and
- Increasing public awareness of NOAA's role as a leader in ocean exploration, the need for deep-sea exploration and science, and the value of deep-sea ocean resources and environments.

The Deep East team will include students, scientists and educators. Results will be posted daily on the Ocean Exploration web site at http://oceanexplorer.noaa.gov as Deep East Schools of Discovery around the country participate in lessons designed to convey both the excitement and benefits of ocean exploration. I hope you can join us in the exploration of new frontiers with new technologies to enable the discovery of ocean secrets previously unknown to mankind.

Acknowledgments

Many dedicated people have been involved in the production of this document. Staff from the National Oceanic and Atmospheric Administration Office of Ocean Exploration, regional teachers, regional education coordinators, the graphic designer, web technicians, and administrative support staff worked many hours to meet tight deadlines so that these educational materials could be available in draft form for the three regional Deep East 2001 Voyage of Discovery Professional Development Institutes. Their dedication to ocean exploration and education is gratefully acknowledged.

All that we do is touched with ocean,
yet we remain on the shore of what we know.

—Richard Wilbur

Project Coordinator/Senior Editor:
Paula Keener-Chavis
South Carolina Statewide Systemic Initiative's
Charleston Math & Science Hub

Editors/Reviewers
Rebecca Cerroni
Institute of Marine and Coastal Sciences
Rutgers University

Janice McDonnell
Institute of Marine and Coastal Sciences
Rutgers University

Diana Payne
Maritime Aquarium at Norwalk/
Connecticut Sea Grant

Peter Scheifele
University of Connecticut
National Undersea Research Center

Cathy Sakas
Islands in the Stream
Grays Reef National Marine

Andrew Shepard, Associate Director
National Undersea Research Center
University of North Carolina at Wilmington
Center for Marine Science

Contributing Authors:
Robin Rutherford
Porter Gaud School
Charleston, South Carolina

Jane Settle
Porter Gaud School
Charleston, South Carolina

Robin Sheek
Laing Middle School
Mt. Pleasant, South Carolina

Donna Ouzts
Laing Middle School
Mt. Pleasant, South Carolina

Caren Menard
Warren Fox Kaynor Regional Vocational
Technical High School
Wolcott, Connecticut

Julie Cliff
Wando High School
Mt. Pleasant, South Carolina

Sue Morrison
James Island High School
Charleston, South Carolina

Tanya Podchaski
Bernards High Sshool
Bernardsville, New Jersey

Denise Monte
University of Connecticut – National Undersea
Research Center

Graphic Design
Sandy Goodwin
Coastal Images Graphic Design

CD-ROM Design
Barry Girsh
South Carolina Aquarium

Administrative Support
Amanda Reid
South Carolina Statewide Systemic Initiative's
Charleston Math & Science Hub

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National Undersea Research Centers (University of North Carolina at Wilmington, University of Connecticut, Rutgers University), University of Maine, College of William and Mary, Georgia Tech University, Louisiana State University, University of South Carolina, College of Charleston, South Carolina Statewide Systemic Initiative, SUNY-Stony Brook, U.S. Geological Survey, Ecological Communications