

U.S. COMMISSION ON OCEAN POLICY



Reports of Site Visits Associated with the Southeast Regional Meeting College of Charleston, Charleston, South Carolina January 15-16, 2002

Background/Areas of Site Visits

On January 14, 2002, the U.S. Commission on Ocean Policy held simultaneous site visits in the Southeast in association with the Commission's Southeast Regional Public Meeting held in Charleston, South Carolina. One site visit took place in Charleston, South Carolina, and another in Annapolis, Maryland.

Charleston, South Carolina

Annapolis, Maryland

Charleston Site Visit

The Charleston site visit focused on several areas including maritime history, research vessels, technology associated with the study of coastal areas, port activities, coastal development pressures and marine science. Commission stops included the CSS H. L. Hunley; NOAA's Coastal Services Center; The NOAA Ship RONALD H. BROWN; The Port of Charleston; Folly Beach; and the Hollings Marine Lab.

Commissioners Participating in the Charleston Site Visit:

Admiral James D. Watkins, USN (Ret.), Chairman

Dr. Paul Sandifer

Mr. Ted Beattie

Dr. James Coleman

Ms. Ann D'Amato

Mr. Larry Dickerson

Dr. Frank Muller-Karger

Commission staff:

Dr. Ken Turgeon

The CSS H. L. Hunley

- Multiple Presenters

The Commissioners first visited the recently-recovered confederate submarine *CCS H. L. Hunley* which was used in the War Between the States and is the first known

submarine to sink an enemy vessel. *Hunley* staff archeologists gave an overview of the sub's history, architecture and crew. The Commissioners learned that the wreck of the Confederate submarine was discovered early in May 1995, off Sullivan's Island, South Carolina. The 40-foot *Hunley* sank in the aftermath of her maiden attack on February 17, 1864, after ramming the Union warship USS *Housatonic* with a harpoon torpedo mounted on an iron shaft extending from the bow. All nine men aboard the *Hunley* were lost. The Honorable Glenn F. McConnell, President Pro Tempore of the South Carolina State Senate and a leading expert on the *Hunley*, made a presentation to the Commissioners, expanding on the importance of the discovery of the submarine to historians, and its place in naval history. The Commissioners then viewed the submarine and its interior.

NOAA's Coastal Services Center

- Multiple Presenters

The next stop on the site visit took the Commissioners to NOAA's Coastal Services Center to learn about some of the important information and technology efforts under way at the center, including studies on the environmental, social and economic well-being of the U.S. coasts and coastal areas. Dr. Margaret Davidson, Acting Administrator of NOAA's National Ocean Service and Director of the Coastal Services Center, hosted the tour, which included presentations by Dr. Jeff Payne, Deputy Director of the Center; Ms. Ginger Hinchcliff, Program Manager of the Center's Training Institute; and Ms. Anne Miglarese, Chief of the Center's Coastal Information Services Branch.

The NOAA Ship RONALD H. BROWN

- Multiple Presenters

Following the presentations at the Coastal Services Center, the Commissioners took a guided tour of the R/V RONALD H. BROWN which is NOAA's newest and largest research vessel. The ship, which was commissioned on July 19, 1997, is named after the former Secretary of Commerce.

The Commissioners learned that the 274-foot ship carries a complement of up to 59 people, including five NOAA Corps officers, four engineers, 16 crew and 34 scientists. The ship has a range of 11,300 nautical miles with a maximum endurance of 60 days. The ship is a state-of-the art oceanographic and atmospheric research platform and is outfitted with highly advanced scientific, navigational and computational equipment.

The Port of Charleston

- Multiple Presenters

Next, the Commissioners traveled to the Port of Charleston to meet with key officials to discuss port activities and growth challenges facing the port. Mr. Bernard Groseclose, Jr., President and CEO of the South Carolina State Ports Authority, gave a presentation on the Port of Charleston in terms of its size, cargo handled and some of the growth issues facing the port. The Commissioners learned that Charleston, the fourth largest container port in the United States, handles \$90 million in cargo every day and is a world leader in efficiency. Groseclose reviewed future plans for port expansion and channel deepening. He also gave an overview of the 100 public port authorities in the U.S. and the key issues they are all facing, including growth; revenues and funding; environmental factors; waterside access; landside access; and future competitiveness.

Folly Beach

- Multiple Presenters

From the port, the Commissioners traveled to Folly Beach, a small community on a barrier island just south of Charleston. This part of the site visit gave the Commissioners an opportunity to meet with town officials and staff from the South Carolina Office of Ocean and Coastal Resources Management. The development issues the community in particular-- and South Carolina in general -- faces was the focus of the discussion. The key issue, according to the experts and officials, is the loss of natural coastal habitat to development projects. As population pressure increases, properties that have remained in family hands for generations in either the natural state or as agricultural lands are now being targeted for development. The issue for Folly Beach -- and virtually all similar coastal towns -- is how to balance development with the need to protect fragile and critical coastal habitats such as wetlands. The problem is exacerbated by the pattern of development where relatively small pieces of land are sold and then developed in a checkerboard manner. In addition, more and more development is taking place right on the beach front, blocking access to and views of the ocean and subjecting more and more people and property to natural disasters such as winter storms and hurricanes.

Some statistics presented to the Commissioners included:

- The eight coastal counties in South Carolina make up 22.7 percent of the State's land area.
- By the year 2010 nearly one-third of the State's population will reside in the coastal zone, a growth rate of 67 percent versus 29 percent for the State as a whole.
- South Carolina is one of the top 10 retirement states in the U.S. and the vast majority of that retirement is in the coastal zone.
- Tourism is the State's leading industry, generating \$14 billion a year and employing 250,000 people.

Hollings Marine Laboratory

- Multiple Presenters

The Charleston area site visit concluded with a tour of the Hollings Marine Laboratory which was dedicated on December 21, 2000 and is named after South Carolina's long-standing United States Senator, the Honorable Ernest F. Hollings. The chairman of the lab's Science Board, Dr. Fred Holland, led the tour of the facility and its various biological, chemical and physics laboratories. The laboratory is a partnership effort among the National Oceanographic and Atmospheric Administration, the South Carolina Department of Natural Resources, the College of Charleston, the National Institute of Standards and Technology and the Medical University of South Carolina. The Laboratory is a premier high technology marine research center with programs that apply new scientific techniques to fisheries and marine resource management. There, scientists use new tools to assess the ecological health of the marine environment and the potential hazards of pollution on marine ecosystems. They also provide important information critical to addressing environmental problems and the means to evaluate the restoration of natural habitats.

Appendix I

Participants:

- The Honorable Glenn F. McConnell, President Pro Tempore of the South Carolina State Senate and a leading expert on the *Hunley*
- Dr. Margaret Davidson, Acting Administrator of NOAA's National Ocean Service and Director of the Coastal Services Center
- Dr. Jeff Payne, Deputy Director of the Center
- Ms. Ginger Hinchcliff, Program Manager of the Center's Training Institute
- Ms. Anne Miglarese, Chief of the Center's Coastal Information Services Branch
- Mr. Bernard Groseclose, Jr., President and CEO of the South Carolina State Ports Authority
- Dr. Fred Holland, chairman of the Hollings Marine Lab Science Board

Annapolis, Maryland Site Visit

The purpose of the site visit to the Chesapeake Bay Program Office in Annapolis, Maryland, was to learn about a nationally-recognized watershed restoration program and hear suggestions on how to apply the lessons learned in the Chesapeake region to the Commission's work. The site visit included presentations on Chesapeake Bay water quality restoration efforts under the *Chesapeake 2000* Agreement, federal and state participation in the Chesapeake Bay Program, the role of the Chesapeake Bay Commission and the importance of citizen involvement.

Commissioners Participating in the Maryland Site Visit:

Mr. William Ruckelshaus
Vice Admiral Paul Gaffney
Mrs. Lillian Borrone
Dr. Andrew Rosenberg
Mr. Christopher Koch
Professor Marc Hershman

Commission Staff:

Dr. Thomas Kitsos, Executive Director

Overview of the Chesapeake Bay Program

- Mr. Peter Marx, Associate Director for Communications, U.S. EPA Chesapeake Bay Program Office

The Chesapeake Bay is the nation's largest and most biologically diverse estuary. More than 3,600 species of plants, fish and animals inhabit the Bay watershed. For more than 300 years, the Bay has sustained the region's economy and defined its traditions and culture.

The watershed is huge relative to the Bay's volume. For example, for every 1,000 square miles of land in the watershed, there is just one cubic mile of Bay water. The Bay is also shallow, averaging 14-feet, with the majority of the Bay's depth measuring less than seven feet. As a result, what happens on the land greatly impacts the Bay.

Over time, human uses of the Bay and its watershed began to impact the Bay ecosystem. Oysters were once so abundant that early ships ran aground on oyster reefs. Overharvesting, habitat destruction, pollution and disease-induced mortality reduced oyster populations to less than one percent of historic levels. Blue crabs, the icon of the Bay, have been in decline in recent years and bay grasses, which provide important nursery grounds and habitat for many species, may have declined by as much as 90%.

In 1983, the Chesapeake Bay Program was created to protect and restore this valuable estuary. The signatories to the historic 1-page agreement were the U.S. Environmental Protection Agency (EPA), Maryland, Virginia, Pennsylvania, the District of Columbia, and the Chesapeake Bay Commission. In 1987, the Chesapeake Bay Program made history again by setting set specific nitrogen and phosphorus reduction goals as well as goals for the restoration of key indicators of the Bay's health, including grasses. The latest agreement, *Chesapeake 2000*, is a comprehensive blueprint for restoring the Bay and its living resources over the next decade.

Stresses to the Chesapeake Bay and Recommendations for Protection and Restoration

- Dr. Rich Batiuk, Associate Director for Science, U.S. EPA Chesapeake Bay Program Office

The site visit emphasized the growing stresses to the Chesapeake Bay, and how to alleviate those stresses in order to protect and restore the Bay. Rapid land development in the Chesapeake region is a major threat to the Bay ecosystem, stressed Peter Marx, Associate Director of Communications for the EPA Chesapeake Bay Program Office. According to Marx, developers are being urged to use techniques and materials that reduce runoff and erosion. Marx added that the Bay is now healthier than it was 20 years ago, but there is still a long way to go. He said that the Bay now has more striped bass than any time during his lifetime but fewer blue crabs and oysters.

The continued increase in land development in the watershed also hurts watermen who earn a living on the Bay, according to Larry Simns of the Maryland Waterman's Association. Simns believes that more development will mean more sewage treatment plants, which will increasingly strain the Bay. Excess nitrogen in the Bay feeds algae blooms that rob the water of oxygen needed for the survival of other species, including fish, shellfish and crabs. Simns recommended that any new policies affecting the Bay must better regulate effluent from sewage treatment plants.

Dr. Batiuk discussed the problems associated with poor water clarity due to sedimentation. Sedimentation results in a very low percentage of sunlight reaching bay grasses. Consequently, these grasses grow poorly or die. To reduce sedimentation into the Bay, the EPA plans to allocate maximum sediment loads to nine major river basins by jurisdiction in 2002. By 2010, the EPA plans to either de-list tidal waters if Bay water quality standards have been attained or develop final Total Maximum Daily Loads for the 64,000-square-mile watershed if the water quality standards have not been achieved.

Importance of Intergovernmental Partnerships

- Mr. Gary Waugh, Virginia Department of Conservation and Recreation, Chairman, Chesapeake Bay Program Communications and Education Subcommittee
- Mr. Frank Dawson, Maryland Department of Natural Resources, Chairman, Chesapeake Bay Program Living Resources Subcommittee
- Ms. Ann Swanson, Executive Director, Chesapeake Bay Commission
- Mr. Lowell Bahner, Director, NOAA Chesapeake Bay Office
- Jonathan Doherty, Chesapeake Bay Gateways Coordinator, National Park Service
- Mr. Andy Loftus, Chesapeake Bay Program Citizen's Advisory Committee
- Mr. David Bancroft, Executive Director, Alliance for the Chesapeake Bay

The importance of successful intergovernmental partnerships also was emphasized during the site visit to the Chesapeake Bay Program. The EPA Administrator, the governors of Maryland, Virginia and Pennsylvania, the Mayor of the District of Columbia and the chairman of the Chesapeake Bay Commission signed a one-page agreement in 1983 to create the Chesapeake Bay Program. The partnership now includes 20 federal agencies; state governments from the three partner states; the District; participation from New York and Delaware state governments; 1,650 local governments and 200 businesses.

Mr. Bahner discussed the NOAA role in the Chesapeake Bay Program as an example of federal participation in the process. NOAA joined the program as a federal partner in 1984, and the NOAA Chesapeake Bay Office (NCBO) was formed in 1992. NCBO funds a wide array of activities in the Chesapeake Bay basin including fisheries, oyster and habitat restoration, toxic materials research, air deposition research, blue crab research, K-12 education programs, and community-based watershed grants. The total NCBO budget for FY2002 was \$7.95 million. The five NOAA Line Offices also invest an additional \$14 million in the Chesapeake Bay region.

APPENDIX I

Presenters:

- Mr. Peter Marx, Associate Director for Communications, U.S. EPA Chesapeake Bay Program Office
- Dr. Rich Batiuk, Associate Director for Science, U.S. EPA Chesapeake Bay Program Office
- Mr. Gary Waugh, Virginia Department of Conservation and Recreation, Chairman, Chesapeake Bay Program Communications and Education Subcommittee
- Mr. Frank Dawson, Maryland Department of Natural Resources, Chairman, Chesapeake Bay Program Living Resources Subcommittee
- Ms. Ann Swanson, Executive Director, Chesapeake Bay Commission
- Mr. Lowell Bahner, Director, NOAA Chesapeake Bay Office
- Jonathan Doherty, Chesapeake Bay Gateways Coordinator, National Park Service
- Mr. Andy Loftus, Chesapeake Bay Program Citizen's Advisory Committee
- Mr. David Bancroft, Executive Director, Alliance for the Chesapeake Bay
- Mr. Larry Simns, Executive Director, Maryland Watermen's Association
- A representative from the Port of Baltimore