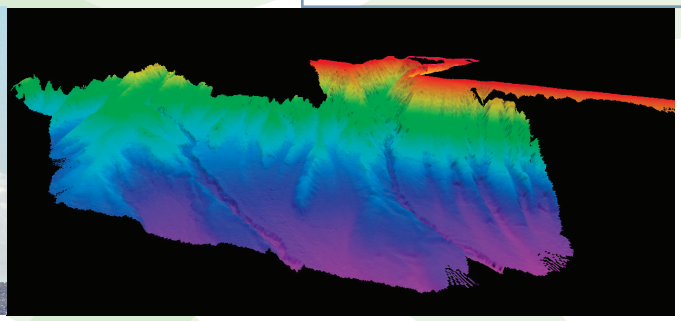
News from
NOAA in the North Atlantic
Winter 2012



All images courtesy NOAA Ocean Exploration

NOAA *Okeanos Explorer* Program Charts Ocean Exploration from the Region

In November, NOAA Ship *Okeanos Explorer* was "dressed" with International Signal Flags displayed for a very special event. Both U.S. senators from Rhode Island, leadership from NOAA and the University of Rhode Island (URI), explorer Dr. Robert Ballard, and news media came on board to welcome the ship, its crew and its team of NOAA ocean explorers to the vessel's new homeport in Davisville, Rhode Island.

Some visitors had seen the ship before, and even the seafloor below it--virtually. Enabled by telepresence, the ship sends live high-definition video from the seafloor to scientists and others ashore, and increasingly to newsrooms and the general public. The ship is the only federal ship that systematically explores Earth's largely unknown ocean.

When mapping sonars or other sensors detect an anomaly, lights on deployed Remotely Operated Vehicles (ROVs) illuminate the seafloor as ROV cameras record potentially new ocean features and animals in high definition. In seconds, video is transmitted via fiber optic link to the ship and via satellite and high-speed Internet pathways to scientists on watch or on call at Exploration Command Centers (ECCs) ashore. ECCs in the North Atlantic Region are at the University of New Hampshire; University of Rhode Island; Institute for Exploration in Mystic, Connecticut; and NOAA facilities in Silver Spring, Maryland.

"With the homeporting of *Okeanos Explorer,* plus URI's Inner Space Center, that came from a partnership between NOAA, URI, and the Institute for Exploration, and several ECCs, the North Atlantic Region now hosts both ship and shore components of NOAA's new model for ocean exploration," said Tim Arcano, director of NOAA's Office of Ocean Exploration and Research (OER). "We develop and apply telepresence and other technologies to explore, with the idea that discovery catalyzes research, which in turn leads to products and processes benefitting NOAA and the nation."

The ship's 2012 schedule is not firm but includes mapping in the North Atlantic and Gulf of Mexico, and ROV operations.

OER and NOAA's Office of Marine and Aviation Operations (OMAO) are key partners. OMAO operates, manages and maintains the ship while OER owns, operates and manages the cutting-edge ocean exploration systems aboard. Under this partnership, a NOAA commissioned officer cross-trains with OER at URI before transferring to the ship as Operations Officer.

Go to http://oceanexplorer.noaa.gov/okeanos to follow *Okeanos Explorer* and find related educational products.

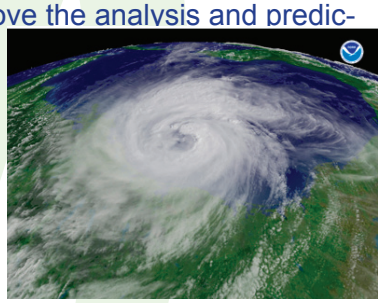
NOAA's North Atlantic region includes all or part of twelve states and the District of Columbia. The quarterly North Atlantic Regional Team (NART) newsletter highlights recent NOAA collaborative activity in our region.

NOAA Supports Hurricane Research in the Region

In October, NOAA's Office of Weather and Air Quality announced that it was funding proposals from university partners, including the University of Rhode Island, along with federal scientist collaborators to more rapidly and smoothly transfer new technology, research results, and observational advances through NOAA's Joint Hurricane Testbed (JHT).

"This is research-to-operations in action for hurricanes," said John Cortinas, director of NOAA's Office of Weather and Air Quality, the office that manages the U.S. Weather Research Program (USWRP), of which JHT is a part.

These projects further NOAA's commitment to create a Weather-Ready Nation, in which the country is able to prepare for and respond to environmental events that affect safety, health, the environment, economy, and homeland security. The JHT was formed by the USWRP to advance the transfer of new research and technology to improve the analysis and prediction of hurricanes at forecast centers. The JHT provides a framework for NOAA, university, and industry researchers to work on specific topics related to hurricanes, such as improvements to computer models, wind measurements, and satellite observations. The JHT is jointly managed by NOAA's Office of Oceanic and Atmospheric Research and National Weather Service.



As part of this research initiative, the University of Rhode Island and the NOAA Geophysical Fluid Dynamics Laboratory (located in New Jersey) will receive $135,000 to improve the operational tropical cycle models used by NOAA/National Centers for Environmental Prediction and Navy/Fleet Numerical Meteorology and Oceanography Center.

NOAA Habitat Blueprint in the North Atlantic

Have you heard about NOAA's Habitat Blueprint?

Healthy habitats provide the foundation for not just fisheries, but coastal communities and many ecosystem services. The Habitat Blueprint provides a framework for NOAA to think and act strategically across programs and with partners to address the challenge of coastal and marine habitat loss and degradation.

In our region, the Blueprint initiatives include implementing a deep-sea corals conservation strategy and restoring oysters in Chesapeake Bay tributaries. In addition, NOAA's North Atlantic Regional Team is supporting a workshop on March 1-2, 2012 that will bring together ecosystem modelers, spatial analysts and fishermen to address some of the long-standing issues related to marine habitat characterization. The workshop will be co-led by NOAA Fisheries and the National Ocean Service. It will be the first in a series of three workshops to support space-based management through a regional-scale modeling and assessment. The workshop will focus on the development of collaborative projects that can be used to develop a "seascape ecology" in support of ecosystem management.

For more information on the workshop, please contact Kevin.Friedland@noaa.gov. For more information on the Habitat Blueprint contact Helen.McMillan@noaa.gov.

Reference marker at Driftway Park Pier in the Town of Scituate

NWS & CZM Develop New Scituate Flood Monitoring Project

A collaborative effort between the Massachusetts Office of Coastal Zone Management (CZM), the town of Scituate, Mass., and the National Weather Service (NWS) will set the stage for much better documentation of storm events and improved forecasts.

Various spots along the Massachusetts coastline have a reputation for frequent damage from storms and coastal flooding. Scituate has a number of such "hot spots." To produce a more comprehensive and objective database of coastal inundation (flooding) and erosion events, ten such frequent flooding locations in Scituate were identified to establish reference markers that would help measure inundation episodes. Tide staff gages were installed at these sites and carefully referenced to a known elevation.

During future coastal storm events, local and state employees or volunteers will now be able to document observed water levels, and, in some circumstances, even upload pictures of high water marks. The Reference Marker Project is part of a larger Inundation and Visualization pilot project that seeks to improve forecasts and dissemination of coastal flood information and warnings.

Other project partners include the NOAA North Atlantic Regional Team, Northeastern Regional Association of Coastal Ocean Observing Systems, NOAA Coastal Service Center, University of Massachusetts-Dartmouth, Woods Hole Oceanographic Institution, the NWS Taunton Office, Massachusetts Emergency Management Agency, U.S. Geological Survey, and the town of Saco, Maine.

For more project information contact Robert.Thompson@noaa.gov or jason.burtner@state.ma.us.

DID YOU KNOW?

- **The North Atlantic hosts some of the Nation's largest metropolitan areas and ports, with significant projected increases in maritime transportation.**
- **The nation's largest commercial fishing port by dollar value is in New Bedford, Mass., a testament to the area's dominant scallop industry.**
- **The region includes 180 coastal counties (and the District of Columbia) which constitute 40 percent of the total land area, and 77 percent of the North Atlantic's population.**
- **The North Atlantic has four of the Nation's ten largest metropolitan areas, three of the top five U.S. ports (value of fish landed) and five of the Nation's top 20 ports (international cargo volume).**

NOAA People in the North Atlantic Region

NART Member

Andrew Larkin is the Virginia Outreach Coordinator for the NOAA Chesapeake Bay Office (NCBO) and is stationed at the Nauticus museum on the waterfront in Norfolk, Va. He also supports the outreach efforts of the National Ocean Service. Before moving to Norfolk for his current position, he worked at the NOAA Office of Legislative Affairs in Washington, D.C.

Andrew works to connect Virginia-based stakeholders (representatives from media, maritime users, federal, state and local governments, and non-governmental organizations) with NCBO and NOAA products and services. He also serves as the program officer for NOAA's Bay Watershed Education and Training (B-WET) grants in Virginia.

He has a B.A. in political science from the University of Florida and a J.D. from the College of William and Mary School of Law. He lives in Norfolk, with his wife and two children, and he enjoys kayaking, traditional Irish music, travel, and Revolutionary War history.

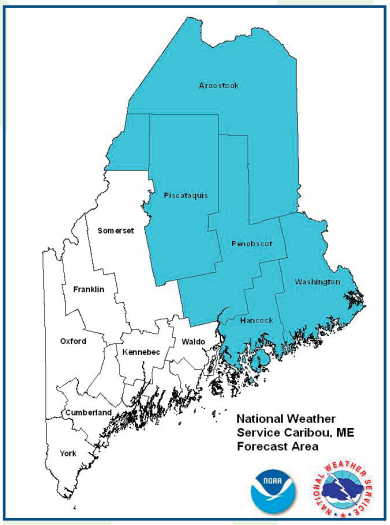
NART Background

The NART is one of eight regional teams created by NOAA's Regional Collaboration effort. It is composed of 16 members from five line offices and is currently led by Peyton Robertson. Nicole Bartlett is the NART Regional Coordinator. For more information on team members and activities visit: **http://www.regions.noaa.gov/north_atlantic/**

NOAA Places in the North Atlantic Region

National Weather Service Forecast Office in Caribou, Maine

The NOAA National Weather Service Forecast Office located in Caribou, Maine (Caribou WFO) is the northernmost NOAA office in the North Atlantic Region. Caribou WFO provides weather, water, and climate forecasts and warnings for the northern half of Maine.



The office is also responsible for marine forecasts and warnings for the Gulf of Maine. Daily observations from 50 climate cooperative volunteer observers are collected and maintained by the office. A staff of 22 people, led by Meteorologist-in-Charge Richard Okulski provides 24-hour a day coverage to a wide customer base including the general public, marine, aviation and fire weather communities. Caribou has an active outreach program, including school talks and tours, aviation and boat show participation, and SKYWARN spotter training.

The office also provides programming for eight weather radio transmitters that broadcast official National Weather Service warnings, watches, forecasts and other hazard information.

When the Caribou WFO building was completed in 2002, it was the first LEED certified building in Maine and was constructed with 50 percent recycled and locally harvested materials. It uses 30 percent less energy than a typical WFO.

For more information about the Caribou WFO, go to www.erh.noaa.gov/car/