News from
NOAA in the North Atlantic
Spring 2012

Storm Reporter Expands to the Mid-Atlantic

The North Atlantic coastline has always been vulnerable to coastal flooding from both hurricanes and nor'easters. Continued population growth combined with sea level rise will raise the stakes for coastal flooding and erosion along the North Atlantic coastline. Efforts to improve coastal flood warnings and response depend upon the quality and thoroughness of historical data. For most locations, past accounts of coastal flooding are sketchy and incomplete. Storm Reporter, a new software tool supported by funding from NOAA's North Atlantic Regional Team, was created to enhance coastal resiliency.

Storm Reporter is designed to facilitate efficient entry of coastal impact data from storms to enhance real-time warning decision-making, post-storm damage assessment surveys, and long term data archival. Information from the impact of a high tide cycle assists National Weather Service (NWS) forecasters in refining projections for the potential impact of one or more following high tide cycles. Information on coastal storm impacts also helps validate and improve NWS forecast techniques. Near real-time information entered into Storm Reporter has provided states with early intelligence to support preparations and qualifications for federal disaster assistance. The tool assisted NWS' own Hurricane Irene Assessment Team in documenting the storm's coastal flood impact in 2011 along the New England coast.

Storm Reporter has proven to be an efficient and economical way to collect and organize data about major coastal storms. Over the longer term, more precise and comprehensive collection of coastal inundation, wave damage, and erosion information will lead to scientific advancements, better coastal planning decisions, and more accurate economic impact analyses.

Initially developed at the Taunton Weather Forecast Office, the tool has been successful deployed throughout New England over the last two years using NART funding. In FY12, the NART supported the refinement and expansion of Storm Reporter to include the Mid-Atlantic region. NOAA and state personnel in the Mid-Atlantic region, especially from the coastal zone management community, have begun to identify critical observation locations and plan training of government professionals and volunteers alike in observation procedures and Storm Reporter use.

Storms will no doubt pound the North Atlantic coastline in the future. However, due to the NART Storm Reporter development and expansion initiative, scientists and decision-makers will now have the opportunity to better understand, predict, mitigate, and respond to the threats posed by hurricanes and nor'easters to our increasingly vulnerable shoreline.

Contact Robert.Thompson@noaa.gov for more information about Storm Reporter.

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.

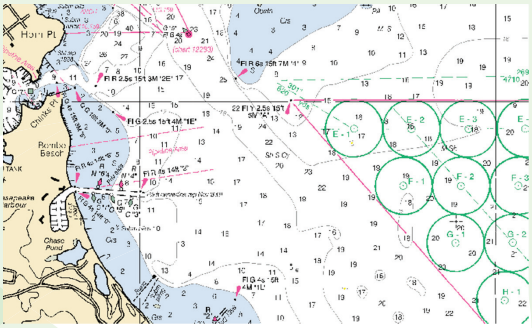
Northeast Advances Ocean Planning

In response to the National Ocean Policy, the Northeast Regional Ocean Council (NROC) convened 200 ocean industry members, government agencies (federal, state, tribal, local), academics and non-profit organizations to discuss the opportunities and challenges of regional ocean planning in New England waters. NOAA is a key NROC participant and is supportive of its ocean planning efforts.

For the first time, industry members representing shipping, infrastructure, commercial fishing, recreational boating, energy development, and aquaculture joined the conversation to share their perspectives on how ocean planning could benefit or hinder them. The discussion also identified the most effective ways to engage these stakeholders, what science and data are needed to support ocean planning efforts, and what regulations and managements measures were most in need of change to support effective ocean planning implementation.

NROC convened this workshop prior to the formation of a regional planning body to engage stakeholders on its 2-year work plan, which will fund foundational elements of ocean planning with support from NOAA, the Moore Foundation and in-kind services. A proceedings report will be available in April.

Contact Betsy.Nicholson@noaa.gov for more information.



Nautical chart of the Severn River area.

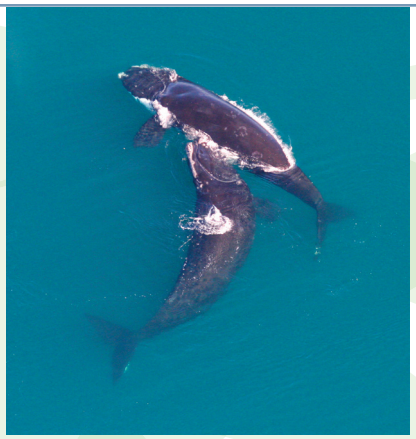
DID YOU KNOW?

NOAA's mapping philosophy is "map once, use many times." The NOAA Office of Coast Survey, Atlantic Hydrographic Branch (AHB), located in Norfolk, Va. verifies bathymetric (sea floor) data that originates from various sources within the common areas. AHB processes sonar survey data obtained by NOAA vessels and other sources to support updating of nautical charts used for safe navigation.

Recently, the NOAA Chesapeake Bay Office (NCBO) conducted surveys of the Severn and Choptank rivers in Maryland, to assess the river bottom for suitable locations for oyster restoration projects. Oyster reefs need sandy or hard bottoms so that they do not become buried in the mud at the bottom of a creek or river.

NCBO submitted this survey data to AHB. AHB analyzed and processed the data, and Coast Survey will be including the new information as part of upcoming revisions to nautical charts for the Severn and Choptank rivers.

If other NOAA offices have new, high-quality survey data that could be used for nautical chart upates, contact Gene Parker at castle.e.parker@noaa.gov at AHB.



NOAA Creates New Right Whale Warning Systems

NOAA recently released updgraded electronic navigational charts (ENC) for several east coast ports to alert mariners when they are approaching *right whale seasonal management areas*. These are zones where right whales are likely to occur and vessels that are 65 feet or greater in length must reduce their speed to 10 knots while transiting.

The improved ENCs, available for approaches to ports in the North Atlantic region from Norfolk, Va. to Portland, Maine, will give ship captains better information to plan to reduce their speeds or avoid the areas altogether. The ENCs will also provide for an alarm on the ship's electronic chart display and information system as vessels enter the speed zone, further alerting the bridge watchstander of speed restrictions.

With as few as 400 in existence, North Atlantic right whales are among the most endangered whales in the world. The slow moving whales are highly vulnerable to ship collisions, since their migration route crosses major east coast shipping lanes.

NOAA also recently released an iPhone and iPad application that warns mariners when they enter areas of high risk of collision with critically endangered North Atlantic right whales. The free Whale Alert app provides information about right whale management areas and relays near real-time observations of whale calls from acoustic buoys in and around Stellwagen Bank National Marine Sanctuary to an iPhone or iPad on a ship's bridge.

Seascape Ecology Workshop Energizes Habitat Scientists

On March 1-2, NOAA convened a workshop at Rutgers University in support of an 'open source' approach to seascape ecology. The workshop was co-chaired by Northeast Fisheries Science Center (NEFSC) ecologist John Manderson, who is passionate about using a collaborative approach to address the practical problems of doing habitat ecology at a regional scale.

"I just thought, let's get the best people in the room, whether they are in government, academia, or are out there on the water," said Manderson.

The workshop explored the development of a refined approach for ecosystem-based management in the Mid-Atlantic and included approximately 70 experts from NOAA, academia, and the fishing industry.

As a member of NOAA's North Atlantic Regional Team, Kevin Friedland, also of the NEFSC, advocated for supporting John's approach and co-chaired the meeting, which was jointly sponsored by the NART and the Mid-Atlantic Regional Association Coastal & Ocean Observing System (MARACOOS).

Participants discussed the concept of a Seascape Ecology, and supported a 'data bazaar' that inventoried data/models/techniques useful for regional scale environmentally explicit modeling.

Finally, project leads introduced and described demonstration projects that will apply these concepts and data to existing and future work. Research on squid/butterfish, cod, lobster, black sea bass and even sea birds were featured, as well as a plan to monitor large marine events that have the potential to impact the health of Mid-Atlantic Bight ecosystems.

Workshop proceedings are available at http://maracoos.org/presentations

NOAA People in the North Atlantic Region

NART Member

Darlene Finch is the Mid-Atlantic Regional Coordinator for the NOAA Coastal Services Center (CSC) and works out of Annapolis and Silver Spring, Md. In this position, Darlene works with coastal managers from New York to Virginia to improve the delivery of NOAA CSC products and services. She also connects regional, state, and local climate change adaptation and ocean management efforts to NOAA data and expertise.

Darlene has an undergraduate degree in interdisciplinary environmental studies from Hamilton College and a master's degree in city and regional planning from the University of North Carolina at Chapel Hill.

She came to NOAA as a Sea Grant Fellow. Afterwards, she worked in the National Marine Sanctuaries and Estuarine Research Reserves program. She has also worked for the NOAA Office of Response and Restoration and National Ocean Service headquarters.

As a valued member of the NART team, Darlene helps to link NOAA tools and data with new state and regional initiatives relating to climate change adaptation and ocean planning, including the Mid-Atlantic Regional Council on the Ocean (MARCO).

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

NOAA Wallops Island Command & Data Acquisition Station

The NOAA Wallops Command and Data Acquisition (CDA) Station, located on Virginia's Eastern Shore near Chincoteague, is responsible for communicating with NOAA's geostationary (GOES) and polar (POES) environmental weather satellites and ensuring the data flow from these satellites reaches its destination. The Wallops CDA is the primary source of satellite commands that direct the satellites' operations and schedules while they are in orbit. As the communiation link between GOES and POES and the Satellite Operations Control Center (SOCC) in Suitland, Maryland, it acquires, maintains, and distributes a continuous flow of weather data from the satellites.

The Wallops CDA Station has 11 antenna systems, which send commands to the satellites and also acquires and processes data from them. The Station also processes the ground-to-spacecraft link for weather fax broadcasts. The information is distributed to all weather offices to track and evaluate significant weather events and prepare warnings and forecasts. The Station assists in developing and implementing emergency procedures to safeguard spacecraft health and safety; and executes emergency plans independently in the event of a communications outage with the NESDIS SOCC in Suitland.

Doug Crawford is the Station Manager and supervises a staff of 68 employees. The station is currently undergoing construction to upgrade the facility to support the GOES-R program.

For more information, visit http://www.wcda.noaa.gov/