

NOAA In Your State Massachusetts

“NOAA’s work touches the daily lives of every person in the United States and in much of the world. Our products and services are the result of the hard work of NOAA’s dedicated staff and partner organizations located in program and research offices throughout the country. The following is a summary of NOAA programs based in, and focused on, your state. The entries are listed by statewide, region, and then by congressional districts and cities or towns.”

- Dr. Jane Lubchenco
Under Secretary of Commerce for Oceans and Atmosphere
and NOAA Administrator



MA

Acushnet, Westford

Office of Oceanic and Atmospheric Research (OAR) Earth System Research Laboratory/Global Systems Division Ground-Based GPS Meteorology

The Earth System Research Laboratory maintains the Ground-Based GPS Meteorology project, currently consisting of 400 GPS water vapor observing systems that provide near real-time integrated precipitable water vapor (IPW) measurements for weather forecasting, climate modeling, calibration and validation of satellite and radiosonde water vapor measurements, and research. This project provides water vapor data available to all users.

<http://www.gpsmet.noaa.gov/jsp/raob.jsp>

MA

Coastal

National Ocean Service (NOS) Center for Operational Oceanographic Products and Services National Water Level Observation Network

The National Ocean Service (NOS) operates three long-term continuously operating tide stations in the state of Massachusetts, which provide data and information on tidal datum and relative sea level trends, and are capable of producing real-time data for storm surge warning. These stations are located at Boston, Woods Hole and Nantucket.

<http://tidesandcurrents.noaa.gov>

National Ocean Service (NOS) Integrated Ocean Observing System (IOOS) Program IOOS Regional Association

The NOAA Integrated Ocean Observing System (IOOS) program manages the development of a national network of 11 Regional Associations (RAs) of coastal ocean observing systems. The Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) was established to network and expand the existing observing and prediction capacities of a multitude of institutions and agencies throughout New England and Maritime Canada. NERACOOS supports infrastructure that provides over-water meteorological and wave observations in Long Island Sound and the Gulf of Maine to the National Weather Service that are critical to safe navigation. These platforms also support current and dissolved oxygen sensors that provide critical information for management of hypoxia and harmful algal bloom. Fisheries managers, water quality specialists, the Coast Guard, and many others benefit from accurate and timely ocean observing

infrastructure and related decision support tools. The region includes the coastal waters of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut. There is overlap with the Mid-Atlantic Coastal Ocean Observing Regional Association (MACOORA), which also includes the coastal waters of Connecticut and Rhode Island. In addition, partners from the Canadian provinces of New Brunswick and Nova Scotia will be involved to ensure appropriate coverage in shared waters.

<http://http://www.neracoos.org/>

**National Ocean Service (NOS)
Integrated Ocean Observing System (IOOS) Program
IOOS Regional Association**

The Mid-Atlantic Coastal Ocean Observing Regional Association (MACOORA) is one of eleven regional associations in the United States focused on ocean observing. Our region extends from Cape Hatteras to Cape Cod and includes all the estuaries and the continental shelf waters. Nearly 25 percent of the nation's population lives next to the MACOORA ocean region.

<http://http://www.macoora.org/>

**Office of Oceanic and Atmospheric Research (OAR)
Office of Ocean Exploration and Research
Center for the North Atlantic and Great Lakes**

NOAA's Office of Ocean Exploration and Research focuses on exploration, advanced undersea technology development, research of extreme and unique environments, continental shelf ecosystems, new ocean resources, and ocean dynamics, and the communication of results to various audiences through education and outreach. NOAA's Undersea Research Center for the North Atlantic and Great Lakes (NAGL), one of the six NURP regional centers, is housed at the University of Connecticut. The NALG Center supports undersea research off the U.S.'s northeastern coast (i.e., Gulf of Maine, Georges Bank and the Southern New England Coast including Long Island Sound) and in the Laurentian Great Lakes. The center's research focuses on ecosystem response to human induced stress such as fishing and pollution and the role of habitat in sustaining fisheries and biological diversity. Underwater diving technologies available through NAGL include occupied submersibles, remotely operated vehicles (ROV's), and Nitrox scuba.

<http://www.nurp.noaa.gov> and <http://www.oceanexplorer.noaa.gov>

**Office of Oceanic and Atmospheric Research (OAR)
Pacific Marine Environmental Laboratory
NOAA Center for Tsunami Research (NCTR)**

The Tsunami Research Program at the Pacific Marine Environmental Laboratory (PMEL), headquartered in Seattle, Washington, seeks to mitigate tsunami hazards to all U.S. coastal states and territories, including Massachusetts. A tsunami is a series of very large ocean waves caused by underwater earthquakes, landslides, volcanic eruptions, explosions, and even meteor impacts. Capable of flooding hundreds of meters inland past the typical high-water level, the fast-moving water associated with an inundating tsunami can crush homes and other coastal structures. More common, and devastating in an economic sense, are false alarms that lead to expensive evacuations of coastal areas. The PMEL NCTR staff conducts research and development activities in close collaboration with the National Weather Service (NWS) Tsunami Warning Centers, National Data Buoy Center (NDBC), and the coastal states. Activities focus on the development of site-specific forecast models for coastal population centers. These models are integrated into a PMEL-developed operational tsunami forecasting system at the Tsunami Warning Centers. PMEL developed the original real-time DART tsunami-measuring buoy, which has been transitioned to NDBC. Engineering development is underway at PMEL to improve the cost-effectiveness of these platforms. Tsunami research at PMEL focuses on model improvements and tsunami hazard mitigation.

<http://nctr.pmel.noaa.gov>

**MA
Statewide**

**National Marine Fisheries Service (NMFS)
Habitat Program
Restoration Center**

NOAA's Restoration Center works with 104 private and public partners in the Commonwealth of Massachusetts to construct fish ladders at dams, remove dams entirely, widen bridges, modify culverts to improve tidal flushing in coastal wetlands, and restore submerged aquatic vegetation. Sixty-six projects have been constructed in the State since 1997 and roughly 1,000 volunteers have contributed their time and effort to restore habitat.

<http://www.nmfs.noaa.gov/habitat/restoration/>

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Coastal Elevation Mapping**

The Center works with state and local officials to collect and distribute high-resolution topographic and bathymetric data sets. The Center worked with the private sector to acquire new light detection and ranging (lidar) and Interferometric Synthetic Aperture Radar (IfSAR) data for coastal management applications such as the analysis of storm surge and storm inundation, erosion, and habitat mapping. The Center also worked with state and federal partners to share costs and find multiple uses for coastal lidar and IfSAR data sets.

<http://http://www.csc.noaa.gov/crs/tcm/>

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Coastal Inundation Visualizations**

Inundation from tropical storms (nor'easters) poses a significant threat to coastal regions in the Northeast. High-resolution visualization tools designed to help identify areas at risk of flooding are being developed for pilot locations in Scituate, Massachusetts, and Saco, Maine. The NOAA North Atlantic Regional Team has partnered with the National Weather Service to create a series of inundation layers using a GIS, as well as Google Internet applications, to illustrate potential flood inundation for real-time, forecast, hindcast, and scenario-based water levels.

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Coastal Management Fellowship**

The NOAA Coastal Management Fellowship matches postgraduate students with state coastal zone programs to work on two-year projects proposed by the state.

<http://http://www.csc.noaa.gov/cms/fellows.html>

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Land Cover Mapping**

Nothing provides a big-picture view of land cover status better than these maps, which are developed using remote sensing technology. The Center has baseline land cover data for most of the coastal zone. The goal is to update the imagery every five years to also provide a means of detecting change or trends.

<http://http://www.csc.noaa.gov/landcover/>

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Legislative Atlas**

This Web-based legislative mapping tool provides coastal resource managers with easy access to coastal legislative data and information. In 2008 the Legislative Atlas team added additional legislative information for the three regions represented in the atlas—Hawaii, West Coast, and the Gulf of Maine. This added information included both federal and state regulations. The legislative query tool is also being redesigned according to user input.

<http://http://www.csc.noaa.gov/legislativeatlas/>

**National Ocean Service (NOS)
Coastal Services Center (CSC)
Training**

The Center provides training to the coastal resource managers of the nation in three focus areas: geospatial technology, coastal management, and building process skills. Training can take place at the Center's training facility for some courses but most often is taken to coastal managers in the field.

<http://http://www.csc.noaa.gov/bins/resources/training.html>

**National Weather Service (NWS) and Office of Oceanic and Atmospheric Research (OAR)
Incident Meteorologist Program and Earth Systems Research Laboratory
Fire Weather Services and Support**

The National Weather Service (NWS) fire weather forecasters are called Incident Meteorologists (IMETS). When a fire reaches a large enough size the IMETS are called out to the fire to provide constant weather updates and forecast briefings to the fire incident commanders at the fire. The IMETS are very important members of the fire fighting team, as changes in the fires are largely due to changes in the weather. To improve NWS fire weather services to the public, NOAA's Earth System Research Laboratory (ESRL) conducts modeling, instrumentation and data services research.

ESRL data dissemination and display systems are designed to be used by trained meteorologists, the US Forest Service, and the Bureau of Land Management. For example, the FX-Net thin client system and the Gridded FX-Net full function system are ESRL-developed software systems that are a critical part of the equipment the IMETS bring with them to the fire. NWS forecasters at fires in all 50 states use these mobile PC-based client software packages. Computer servers that communicate with the mobile PC clients are located in Hawaii, Alaska, Utah, Colorado, Texas and New York. State emergency managers in many of the NWS regional areas also use the PC-base clients. Other collaborators who work to improve NWS fire weather services include the University of Colorado in Boulder (CU), NCAR and private sector instrumentation companies.

**Office of Oceanic and Atmospheric Research (OAR)
Climate Program Office
Massachusetts Grants**

NOAA is a leading provider of climate, weather, and water information and services to the nation and the world. NOAA's Climate Program Office was established in October 2005. The Office manages the competitive research program by which NOAA funds high-priority climate science to advance understanding of atmospheric, oceanic, land-based, and snow and ice processes, and how they affect climate. It focuses on developing a broader user community for climate products and services, provides NOAA a focal point for climate activities within NOAA, leads NOAA climate education and outreach activities, and coordinates international climate activities. It supports projects across the nation conducted by investigators outside the federal government, such as the through the academic and private sectors, within the federal government, and in NOAA Cooperative Institutes. The Climate Program Office provides climate funding in this state.

<http://www.cpo.noaa.gov/>

**MA- 1
Petersham [Harvard Forest]**

**Office of Oceanic and Atmospheric Research (OAR)
Earth System Research Laboratory/Global Monitoring Division
Monitoring the Atmosphere Aloft - Carbon Cycle Gases and Halocarbons**

NOAA's Earth System Research Laboratory (ESRL) operates a new and growing small aircraft-based North American network of sampling sites to measure vertical profiles of important greenhouse gas concentrations. Air is sampled above the surface up to approximately 25,000 feet above sea level using a relatively small, light, and economical automated system developed by ESRL researchers. These air samples are delivered to the ESRL laboratory in Boulder, Colorado for measurements of CO₂, CH₄, and other greenhouse gasses. This data will improve understanding and models of the global carbon cycle. Sampling is conducted bi-weekly. Some air samples from the small aircraft program are also analyzed for halocarbon gases that can destroy the stratospheric ozone layer. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer so it can protect us from the sun's ultraviolet radiation.

<http://www.esrl.noaa.gov/gmd/about/climate.html>

**Office of Oceanic and Atmospheric Research (OAR)
Earth System Research Laboratory/Global Monitoring Division
Monitoring the Surface Atmosphere – Halocarbon Measurements**

NOAA's Earth System Research Laboratory (ESRL) operates a sampling network to measure the distribution and trends of the gases most responsible for human-caused depletion of the stratospheric ozone layer. Weekly samples are collected in high pressure flasks at fixed locations. The air sample flasks are delivered to the ESRL laboratory, located in Boulder, CO for analysis. Some locations conduct continuous surface measurements on site. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer - so it can protect us from the sun's ultraviolet radiation.

<http://www.esrl.noaa.gov/gmd/hats/>

MA- 3

Worcester

Office of Oceanic and Atmospheric Research (OAR) Earth System Research Laboratory/Global Monitoring Division Monitoring the Surface Atmosphere – Ozone Measurements

ESRL conducts long-term monitoring of ozone at the surface, with aircraft, and with balloons, through cooperative relationships with local partners. The ESRL tropospheric ozone aircraft measurement program is being done in conjunction with the Carbon Cycle and Greenhouse Gas (CCGG) group's existing aircraft sampling network. Aircraft based in-situ tropospheric ozone measurements provide data relevant to: pollution events, lower atmosphere mixing dynamics, boundary layer stability, ozone trend studies, and the validity of other samples collected in-flight. Near ground level ozone is currently monitored using ultraviolet absorption photometers at eight sites that are generally representative of background conditions. These sites, four of which have records exceeding 25 years in length, provide information on possible long-term changes in tropospheric ozone near the surface and support air quality research.

<http://www.esrl.noaa.gov/gmd/ozwv/>

MA- 4

Boston at Taunton

National Weather Service (NWS) Weather Forecast Office Boston WFO and Northeast River Forecast Center

Located about 30 miles south of Boston, this National Weather Service Weather Forecast Office provides weather and flood warnings, daily forecasts and meteorologic and hydrologic data for 35 counties, with a population of 7.9 million residents. The Center covers northern Connecticut (including Hartford), Rhode Island (including Providence), southwest New Hampshire (including Manchester), most of Massachusetts (including the greater Boston metropolitan area), and the coastal waters adjacent to Massachusetts and Rhode Island. The co-located River Forecast Center provides forecasts of river levels and flooding potential for New England and parts of New York.

<http://www.erh.noaa.gov/box> and <http://www.nws.noaa.gov/er/nerfc/>

Fairhaven

National Marine Fisheries Service (NMFS) National Seafood Inspection Program Fairhaven Inspection Office and Laboratory

NOAA's National Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The Program offers a wide range of services to the area's fishermen, fish processors and fish brokers including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fish meal used for animal foods, are eligible for inspection and certification.

<http://seafood.nmfs.noaa.gov/>

New Bedford

National Marine Fisheries Service (NMFS) Northeast Region Fisheries Statistics Office

The Northeast Region Fishery Statistics Office field office is responsible for the collection, receipt and initial processing of fishery dependent data describing the commercial fisheries' harvests and landings in the local area. The fishery dependent data includes seafood dealer receipts of purchases from fishing vessels, biological samples of these landings and other information used by fishery managers and scientists to monitor and assess coast wide stocks of finfish and shellfish. Staff serves as liaisons to the local fishing industry, state marine fisheries agencies, and other constituents.

<http://www.nero.noaa.gov/fso/>

National Marine Fisheries Service (NMFS) Northeast Region Restoration Center

NMFS Restoration Center assists the New Bedford Harbor Trustee Council to implement restoration projects that address the injury to natural resources caused by the release of hazardous substances into New Bedford Harbor and the Acushnet River. The Council administers a fund derived from settlements with manufacturers that discharged polychlorinated biphenyls into the harbor and river. To date the Council has completed 21 restoration projects including restoration of salt marsh, fish passage, eelgrass and shellfish, land protection, and recreational park construction.

<http://www.nmfs.noaa.gov/habitat/>

National Marine Fisheries Service (NMFS)**Office of Law Enforcement****Field Office**

NOAA's Office of Law Enforcement is dedicated primarily to the enforcement of laws that protect and regulate our nation's living marine resources and their natural habitat, which encompasses some 84,000 square miles of open water in the U.S. Exclusive Economic Zone. The Office of Law Enforcement Northeast Division monitors activities of over 12,000 federally licensed commercial fishing vessels from the Maine/Canadian border to Virginia and thousands of recreational fishing vessels, 43 major seafood ports, 12 major seafood exchanges, 21 major international airports, and eight major entry stations from Canada. The Office for Law Enforcement Northeast Division is also responsible for enforcement activities within NOAA's Stellwagen Bank National Marine Sanctuary off Massachusetts and Thunder Bay National Marine Sanctuary in Michigan.

http://www.nmfs.noaa.gov/ole/ne_northeast.html

Office of Oceanic and Atmospheric Research (OAR)**Earth System Research Laboratory/Global Systems Division****Science On a Sphere®**

Science On a Sphere® (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain what are sometimes complex environmental processes, in a way that is simultaneously intuitive and captivating.

<http://www.sos.noaa.gov/> and http://sos.noaa.gov/news/sos_sites.html

MA- 6**Gloucester****National Marine Fisheries Service (NMFS)****National Seafood Inspection Program****Gloucester Inspection Office and Laboratory and National Training Section**

NOAA's Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The Program offers a wide range of services to the area's fishermen, fish processors and fish brokers including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

<http://seafood.nmfs.noaa.gov/>

National Marine Fisheries Service (NMFS)**Northeast Region****Fisheries Statistics Office**

The Northeast Region Fishery Statistics Office port office is responsible for reviewing and auditing of fishery dependent data describing the commercial fisheries' landings in the local area. The fishery dependent data includes seafood dealer reports of purchases from fishing vessels, collection of biological samples from these landings and other information used by fishery managers and scientists to monitor and assess coast wide stocks of finfish and shellfish. Staff work with local fishing industry, state marine fisheries agencies, and other constituents. They assist with explaining fishery regulations including permitting, fisheries biology and other NOAA wide activities.

<http://www.nero.noaa.gov/fso/>

National Marine Fisheries Service (NMFS)**Northeast Region****Habitat Conservation Division Northeast Field Office**

The Habitat Conservation Division, Northeast Region, is working to protect, conserve and restore habitats of our living marine resources. The division collaborates with regional fishery management councils to, among other things, identify and describe essential fish habitat for each managed species using the best available science, incorporate essential fish habitat into fishery management plans, determine fishing impacts on habitat and whether they are minimal or temporary and recommend steps to minimize impacts.

<http://www.nero.noaa.gov/hcd/>

National Marine Fisheries Service (NMFS)

Northeast Region

Northeast Regional Office

NMFS Northeast Regional Office is responsible for planning, developing, implementing and administering programs for management of living marine resources in the Large Marine Ecosystems of the North Atlantic Shelf and the Great Lakes. The political environment includes 18 states from North Carolina to Maine and the northeast interior. The Regional Administrator represents NOAA on Fishery Management Councils and other organizations that advise the Federal government on the management of living marine resources and provides expertise in international marine conservation concerns affecting eastern Canada and the North Atlantic Ocean. The Regional Office is comprised of five divisions: Sustainable Fisheries, Habitat Conservation, Protected Resources, Fisheries Statistics, and State, Federal, and Constituent Programs.

<http://www.nero.noaa.gov/nero/>

National Marine Fisheries Service (NMFS)

Office of Law Enforcement

Field Office

NOAA's Office of Law Enforcement is dedicated primarily to the enforcement of laws that protect and regulate our Nation's living marine resources and their natural habitat. Office of Law Enforcement special agents and enforcement officers have specified authority to enforce over 37 statutes, as well as numerous treaties related to the conservation and protection of marine resources and other matters of concern to NOAA. From the Maine/Canadian border south to the southern parts of Virginia lays one of the largest and most-active fishing fleets in the world. Over 12,000 federally licensed commercial fishing vessels ply these waters in search of scallops, blue fin tuna, swordfish, monkfish, lobster and Atlantic cod. In the Northeast Division, the special agents and support personnel monitor thousands of recreational fishing vessels, 43 major seafood ports, 12 major seafood exchanges, 21 major international airports, and eight major entry stations from Canada. Office for Law Enforcement Northeast Division is also responsible for enforcement activities within NOAA's Stellwagen Bank National Marine Sanctuary off Massachusetts and Thunder Bay National Marine Sanctuary in Michigan. The Northeast Division has a vast assortment of missions to enforce laws across 84,000 miles of open water in the EEZ that are home to multiple endangered species including the critically endangered Northern Right Whale.

http://www.nmfs.noaa.gov/ole/ne_northeast.html

National Marine Fisheries Service (NMFS)

Seafood Inspection Program

Northeast Inspection Branch and National Training Section

NOAA's Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The Office offers a wide range of services to the area's fishermen and fish processors including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fish meal used for animal foods, are eligible for inspection and certification.

<http://seafood.nmfs.noaa.gov/>

Manchester

National Marine Fisheries Service (NMFS)

Office of Law Enforcement

Field Office

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http://www.nmfs.noaa.gov/ole/ne_northeast.html

MA- 8

Boston

National Ocean Service (NOS)

National Geodetic Survey

Geodetic Advisor

The Geodetic Advisor is a jointly funded National Ocean Service (NOS) employee that resides in the state to provide liaison between the NOS and the host state. The Geodetic Advisor guides and assists the state's charting, geodetic and surveying programs through technical expertise. The program is designed to fill a need for more accurate geodetic surveys, and is in response to the desire of states to improve their surveying techniques to meet Federal Geodetic Control subcommittee standards and specifications. The surveys provide the basis for all forms of mapping and engineering projects, and monitoring of the dynamic Earth. This program also provides technical assistance in planning and implementing Geographic/ Land Information System: (GIS/LIS) projects.

<http://http://www.ngs.noaa.gov/ADVISORS/AdvisorsIndex.shtml>

National Ocean Service (NOS)

Office of Ocean and Coastal Resource Management

Massachusetts Coastal Management Program

The Massachusetts Coastal Program is administered by the Office of Coastal Zone Management within the Executive Office of Environmental Affairs and consists of 20 enforceable program policies and nine management principles governing activities within the coastal zone. The coastal program is the lead for coastal policy and technical assistance in the state. The Massachusetts coastal zone roughly includes all land within a half-mile of coastal waters and salt marshes as well as all islands. The Coastal Program works closely with a network of agencies to implement the program. Coastal Program staff also work closely with local governments and organizations to promote coastal management at the local level.

<http://coastalmanagement.noaa.gov/mystate/ma.html>

Cambridge

Office of Oceanic and Atmospheric Research (OAR)

National Sea Grant College Program

Massachusetts Institute of Technology Sea Grant College Program

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education, and outreach (extension and communications). Sea Grant forms a network of 32 programs in all U.S. coastal and Great Lakes states, Puerto Rico and Guam. The Massachusetts Institute of Technology Sea Grant College Program sponsors marine research guided by local and national research needs. For maximal potential impact, research is focused on specific theme areas, including marine biotechnology, coastal management and utilization, technology development, non-indigenous species, and coupled ocean observation and modeling.

<http://web.mit.edu/seagrant>

MA- 9

Boston

National Marine Fisheries Service (NMFS)

Northeast Fisheries Science Center

Market News Boston Office

NOAA's "Fishery Market News" began operations in New York City on February 14, 1938. This office provides accurate and unbiased reports depicting current conditions affecting the trade in fish and fishery products, including daily auction pricing in New England ports.

http://www.st.nmfs.gov/st1/market_news/

National Ocean Service (NOS)

Office of Response and Restoration

Scientific Support Coordinator

NOAA's Emergency Response Division (ERD) strives to reduce risks to coastal habitats and resources from oil and hazardous chemical spills. ERD's multi-disciplinary Scientific Support Team has decades of experience in responding to spill emergencies. Led by its nine regionally based Scientific Support Coordinators (SSCs), ERD's response to spill emergencies has gained a reputation for rapid, well-thought-out, yet cost effective environmental protection decisions. The SSC based in Boston works directly with U.S. Coast Guard spill response teams by providing critical scientific support to the federal On-Scene Coordinator (OSC) during spills of oil or hazardous materials. SSCs use oil spill trajectory estimates, chemical hazards analyses, and assessments of the sensitivity of biological and human-use resources to help the OSC make timely operational decisions. SSCs provide guidance, experience, and resources to develop spill preparedness plans that help identify the spill response action with the greatest environmental benefit.

<http://response.restoration.noaa.gov>

MA-10

Chatham

National Marine Fisheries Service (NMFS)

Northeast Region

Fisheries Statistics Office

The Northeast Region Fishery Statistics Office field office is responsible for the collection, receipt and initial processing of fishery dependent data describing the commercial fisheries' harvests and landings in the local area. The fishery dependent data includes seafood dealer receipts of purchases from fishing vessels, biological samples of these landings and other information used by fishery managers and scientists to monitor and assess coast wide stocks of finfish and shellfish. Staff work with the local fishing industry, state marine fisheries agencies, and other constituents.

<http://www.nero.noaa.gov/fso/>

Martha's Vineyard

Office of Oceanic and Atmospheric Research (OAR)

Earth System Research Laboratory/Global Monitoring Division

Monitoring the Atmosphere – Tall Tower Carbon Measurements

NOAA's Earth System Research Laboratory (ESRL) operates trace gas monitoring sites at tall television transmitter towers in five states, including Massachusetts. The sites were established to extend ESRL's monitoring network into the interior of North America in order to provide data to aid estimation of the net carbon balance of the continent. Variations of trace gases, especially carbon dioxide, are largest near the ground, so we utilize existing tall (> 400 meter) transmitter towers as platforms for in situ and flask sampling for atmospheric trace gases.

<http://www.esrl.noaa.gov/gmd/ccgg/towers/>

Office of Oceanic and Atmospheric Research (OAR)

Earth System Research Laboratory/Global Monitoring Division

Monitoring the Surface Atmosphere - Cooperative Global Air Sampling Network

NOAA's Earth System Research Laboratory (ESRL) operates a Cooperative Global Air Sampling Network to measure the distribution and trends of carbon dioxide (CO₂) and methane (CH₄), the two gases most responsible for human-caused climate change, as well as other greenhouse gases and volatile organic compounds. Samples are collected weekly at fixed locations and on several commercial ships. The air samples are delivered to the ESRL laboratory, located in Boulder, CO. The observed geographical patterns and small but persistent spatial gradients are used to better understand the processes, both natural and human induced, that underlie the trends. These measurements help determine the magnitude of carbon sources and sinks in North America.

<http://www.esrl.noaa.gov/gmd/about/climate.html>

Office of Oceanic and Atmospheric Research (OAR)

Earth System Research Laboratory/Global Monitoring Division

Monitoring the Surface Atmosphere – Halocarbon Measurements

NOAA's Earth System Research Laboratory (ESRL) operates a sampling network to measure the distribution and trends of the gases most responsible for human-caused depletion of the stratospheric ozone layer. Weekly samples are collected in high pressure flasks at fixed locations. The air sample flasks are delivered to the ESRL laboratory, located in Boulder, CO for analysis. Some locations conduct continuous surface measurements on site. Halocarbon measurements help determine the effectiveness of efforts to protect and restore the ozone layer - so it can protect us from the sun's ultraviolet radiation.

<http://www.esrl.noaa.gov/gmd/hats/>

Scituate

National Marine Fisheries Service (NMFS)

Office of Law Enforcement

Field Office

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http://www.nmfs.noaa.gov/ole/ne_northeast.html

National Ocean Service (NOS)

Office of National Marine Sanctuaries

Gerry E. Studds Stellwagen Bank National Marine Sanctuary

Situated in Massachusetts Bay between Cape Ann and Cape Cod is Stellwagen Bank National Marine Sanctuary, a glacially formed plateau of sand, gravel, silt and "rock flour" and one of the most biologically productive areas off the New England coast. Stellwagen Bank is the most prominent sub marine feature in Massachusetts Bay, measuring approximately 30 kilometers in length and 10 kilometers at its widest point. The endangered Northern right whale, humpback whale and fin whale utilize the sanctuary as summer feeding grounds and sustain a successful whale watching industry in Eastern Massachusetts. In addition to popular marine mammals, the Sanctuary provides vital habitat for important commercial groundfish species such as cod, haddock, pollock and flounder. Headquarters for the sanctuary is located in Scituate.

<http://stellwagen.noaa.gov/>

Waquoit

National Ocean Service (NOS)

Office of Ocean and Coastal Resource Management

Waquoit Bay National Estuarine Research Reserve

In 1988, the Waquoit Bay Reserve was designated for the purpose of studying the south Cape Cod area in order to improve the understanding of coastal ecosystems and human influences on them, then translating that information to promote more informed decision making regarding coastal resources. The Reserve is managed by the Massachusetts Department of Conservation and Recreation and encompasses 2,780 acres. This area includes barrier beaches, coastal salt ponds, marshland, open water, oak and pine forests, upland forest, and freshwater ponds. Key species include the Piping plover, Least tern, Sandplain gerardia, Alewife, Winter flounder, and the Blue crab. There are evening programs and interpretive walks.

<http://nerrs.noaa.gov/WaquoitBay/>

Woods Hole

National Marine Fisheries Service (NMFS)

Northeast Fisheries Science Center

Woods Hole Laboratory

NOAA's Northeast Fisheries Science Center's Woods Hole Laboratory is the nation's original federal marine fisheries laboratory. Research emphasis is on the region's important seafood species, federally protected marine species, and the sociological and economic condition of the fishing business. It also houses the Woods Hole Science Aquarium, the nation's oldest public display aquarium.

<http://www.nefsc.nmfs.gov/nefsc/woodshole/> <http://aquarium.nefsc.noaa.gov/>

National Marine Fisheries Service (NMFS)

Northeast Region

Northeast Fisheries Science Center

The Northeast Region Fishery Statistics Office port office is responsible for reviewing and auditing of fishery dependent data describing the commercial fisheries' landings in the local area. The fishery dependent data includes seafood dealer reports of purchases from fishing vessels, collection of biological samples from these landings and other information used by fishery managers and scientists to monitor and assess coast wide stocks of finfish and shellfish. Staff work with the local fishing industry, state marine fisheries agencies, and other constituents. They assist with explaining fishery regulations including permitting, fisheries biology and other NOAA wide activities.

<http://www.nefsc.noaa.gov/>

Office of Marine and Aviation Operations (OMAO)

Port Office - Woods Hole

NOAA Ships *Henry B. Bigelow* and *Delaware II*

The NOAA Ships *Henry B. Bigelow* and *Delaware II*, and formerly *Albatross IV*, are managed by NOAA's Marine Operations Center-Atlantic in Norfolk, Virginia. The ships support the science and research missions of NOAA's Northeast Fisheries Science Center and its supporting laboratories. *Delaware II* is homeported at the Northeast Marine Support Facility in Woods Hole. The Port Captain provides operational, administrative, and logistical support to the ships. *Henry B. Bigelow* the second ship in the new acoustically quiet class, and is slated for homeporting in Woods Hole. This ship replaces the *Albatross IV*, which was decommissioned in FY08, and is now berthed in Norfolk, Virginia.

<http://www.moc.noaa.gov/all/index.html> and <http://www.moc.noaa.gov/de/index.html>

Office of Oceanic and Atmospheric Research (OAR)

Cooperative Institute

Cooperative Institute for Climate and Ocean Research (CICOR), Woods Hole Oceanographic Institution

CICOR was established at the Woods Hole Oceanographic Institution (WHOI) in August 1998. CICOR provides a framework at WHOI for coordinating NOAA-funded research, to build ties between WHOI investigators and colleagues at NOAA laboratories, and for developing cooperative NOAA-funded research at academic institutions in the northeastern United States. At the same time CICOR provides NOAA investigators with access to WHOI facilities, including 4 ships and 2 submersibles (one manned and one operated remotely), and the Northeast National Ion Microprobe Facility. Major research and planning activities have been carried out in partnership with several NOAA laboratories (e.g., Atlantic Oceanographic and Meteorological Laboratory, Pacific Marine Environmental Laboratory, and Earth System Research Laboratory) as well as other NOAA research units (e.g., Northeast Fisheries Science Center, Climate Program Office, and the Center for Sponsored Coastal Ocean Research). CICOR research focuses on three themes: (1) coastal ocean and near-shore processes; (2) oceanic participation in climate and climate variability; and (3) marine ecosystem processes analysis.

<http://www.whoi.edu/science/cicor>

Office of Oceanic and Atmospheric Research (OAR)

National Sea Grant College Program

Woods Hole Oceanographic Institution Sea Grant Program

The Woods Hole Oceanographic Institution Sea Grant Program serves Massachusetts. Research targets estuarine and coastal processes, fisheries and aquaculture, and environmental technology. Projects in those themes include phytoplankton blooms, groundwater inputs to estuaries, enhanced management of the squid fishery through molecular genetics, and species differences in contaminant susceptibility.

<http://www.whoi.edu/seagrant>

Office of Oceanic and Atmospheric Research (OAR)

Office of Ocean Exploration and Research

Ocean Exploration

NOAA's Office of Ocean Exploration and Research focuses on exploration, advanced undersea technology development, research of extreme and unique environments, continental shelf ecosystems, new ocean resources, and ocean dynamics, and the communication of results to various audiences through education and outreach. OER is a co-sponsor of the hybrid remotely operated vehicle (HROV), along with the National Science Foundation and Office of Naval Research. This new technology combines autonomous and remote control modes and provides the United States with its first capability to reach the deepest parts of the ocean. The HROV is capable of diving to 11,000 meters to map the seafloor, take pictures and, in ROV mode, collect samples of new discoveries. OER has supported the research and development of this unique tool at the Woods Hole Oceanographic Institution.

<http://www.whoi.edu/page.do?pid=10076>

