

NOAA In Your State

North Carolina

NOAA is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA's products and services support economic vitality and affect more than one-third of America's gross domestic product. NOAA's dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it. The following is a summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory. The entries are listed by statewide, region, and then by congressional districts and cities or towns.

NC

Statewide

National Marine Fisheries Service (NMFS) – [Aquaculture Coordinator](#)

The aquaculture coordinator leads regional efforts in the Gulf of Mexico, South Atlantic and U.S. Caribbean to foster sustainable marine aquaculture. The coordinator acts as a liaison between federal and state agencies to assist in permitting and coordination activities, support aquaculture outreach and education and is the point of contact for industry, academia and other stakeholders for regional marine aquaculture issues. The Southeast Region has a growing commercial marine aquaculture industry with a strong shellfish sector, as well as shrimp and finfish production. The Southeast Region is also the only comprehensive regulatory program for offshore aquaculture in federal waters, although other regions (e.g., the Western Pacific) are working to institute similar programs.

National Marine Fisheries Service (NMFS) - [Restoration Center](#)

The NOAA Restoration Center, works with private and public partners locally and nationwide to increase fisheries productivity by restoring coastal habitat. Projects support sustainable fisheries, help recover threatened and endangered species, and reverse damage from disasters like oil spills, ship groundings, and severe storms. Since 1992, they have provided more than \$750 million to implement more 3,300 coastal habitat restoration projects. The Restoration Center works with numerous partners in North Carolina to restore salt marshes, shorelines, and oyster reefs; and to remove dams that block migratory fish habitat. We've restored 900 acres and opened up 348 stream miles through our efforts. Several oyster restoration projects are currently underway in the state which will provide habitat for fisheries and protect the state's shorelines from erosion. NOAA and co-trustees work on restoration projects in the Cape Fear Basin as part of compensation for impacts from the Kerr-McGee wood treatment facility in Navassa, NC.

National Marine Fisheries Service (NMFS) - [Southeast Regional Office](#) and [Southeast Fisheries Science Center](#)

NMFS studies, protects and conserves living marine resources to promote healthy, functioning marine ecosystems, afford economic opportunities and enhance the quality of life for the American public. NMFS' Southeast Regional Office (headquartered in Saint Petersburg, FL) and Southeast Fisheries Science Center (headquartered in Miami, FL) are responsible for living marine resources in federal waters of the Gulf of Mexico, South Atlantic, and U.S. Caribbean. The Southeast Regional Office and Southeast Fisheries Science Center partner to assess and predict the status of fish stocks, marine mammals and other protected resources, develop and ensure compliance with fishery regulations, restore and protect habitat, and recover threatened and endangered species in waters off North Carolina and throughout the Southeast Region.

The Southeast Regional Office's Field Office, stationed in Beaufort, conducts mandated essential fish habitat consultations associated with extensive energy and coastal development activities, participates in state and regional habitat planning and restoration efforts, provides assistance during hazardous material incidents and hurricane events, and participates in the planning processes for major federal water development projects. The Southeast Fisheries Science Center implements a multi-disciplinary science and research program in support of living marine resource management. The Science Center develops the scientific information required for fishery resource conservation; fishery development and utilization; habitat conservation; the protection of marine mammals, sea turtles and other protected species; impact analyses and environmental assessments for management plans and/or international negotiations; and pursues research to answer specific needs in areas of population dynamics, fishery economics, fishery engineering, food science, and fishery biology.

National Marine Fisheries Service (NMFS) and National Ocean Service (NOS) - [Damage Assessment, Remediation, and Restoration Program](#)

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered \$10.4 billion for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life. In North Carolina, the Program is currently working to restore natural resources in cases including the Albemarle Sound/Weyerhaeuser (Domtar) and Kerr-McGree Chemical Corp. hazardous waste sites.

National Ocean Service (NOS) - [Regional Geodetic Advisor](#)

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Raleigh, North Carolina serving the Mid-Atlantic region – North Carolina, Delaware, Georgia, Puerto Rico, Maryland, South Carolina, the Virgin Islands, Virginia, and Washington D.C. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

National Weather Service (NWS) - [Automated Surface Observing Systems Stations](#)

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 24 ASOS stations in North Carolina.

National Weather Service (NWS) - [Cooperative Observer Program Sites](#)

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 199 COOP sites in North Carolina.

National Weather Service (NWS) - [NOAA Weather Radio All Hazards Transmitters](#)

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages).

Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 21 NWR transmitters in North Carolina.

Office of Oceanic and Atmospheric Research (OAR) – [North Carolina Sea Grant College Program](#)

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach. Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico, and Guam. North Carolina Sea Grant is your link to research and resources for a healthier coast. Via integrated research, outreach and education programs, we provide unbiased, science-based information on existing and emerging issues affecting N.C. coastal communities and ecosystems. Since 1970, North Carolina Sea Grant has been a valuable resource for scientists, educators, local officials, government agencies, coastal businesses and the public. With headquarters at North Carolina State University in Raleigh, the program also has coastal offices in Manteo, Morehead City and Wilmington.

Coastal

National Marine Fisheries Service (NMFS) - [Cape Fear River Partnership](#)

NOAA has formed a unique partnership of key federal, state, local, academic, and other organizations in North Carolina to develop a multi-year action plan that will use a broad range of tools and capabilities to provide long-term habitat-based solutions for the most pressing challenges for migratory fish in the Cape Fear River Watershed. Building on the momentum created by constructing a fishway on the first barrier on the river—the Army Corps' Lock and Dam #1—we will address other issues affecting fish and recreational use of the Cape Fear River. The action plan will identify threats to healthy migratory fish populations, outline actions to improve water quality, habitat conditions, and fish passage, and determine community and economic benefits of improved migratory fish populations.

National Marine Fisheries Service (NMFS) - [Deep-Sea Coral Research and Technology Program](#)

NOAA's Deep Sea Coral Research and Technology Program is the only federal program dedicated to mapping, characterizing, and understanding deep-sea coral ecosystems, and sharing the information needed to conserve these habitats. The Program -- called for in the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act and within the Office of Habitat Conservation -- is working with other NOAA offices and external partners to conduct fieldwork to study the distribution, abundance, and diversity of deep sea corals and sponges. Since 2009, more than 42,500 square miles of seafloor have been mapped and surveyed for deep-sea coral habitats from Florida to Maine, in Alaska and the West Coast, and in Hawaii and the Marianas Trench. In FY 2018, research is being prioritized in two regions -- the southeast (states include VA, NC, SC, FL, AL, MS, LA, TX, and the Caribbean islands) and the west coast (WA, OR, CA). Findings will improve knowledge about deep-sea life off the Southeastern U.S. and inform the Fishery Management Council's efforts to manage commercial and recreational fisheries.

National Marine Fisheries Service (NMFS) - [Species Recovery Program](#)

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits. Twenty-five coastal states, including North Carolina and U.S. territories, currently participate in this program.

National Marine Fisheries Service (NMFS) - [National Marine Mammal Stranding Network](#) and [John H. Prescott Marine Mammal Rescue Assistance Grant Program](#)

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are seven stranding network members in the state. NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program.

National Marine Fisheries Service (NMFS) - [Sea Turtle Salvage and Stranding Network](#)

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network, which includes federal, state and private partners, encompasses the coastal areas of the eighteen-state region from Maine to Texas, and includes portions of the U.S. Caribbean. Data gathered by the Network helps inform bycatch reduction efforts, track factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

National Marine Fisheries Service (NMFS) - [Fishery Statistics Office](#)

Field agents serve as the principle data collection agent for marine fisheries throughout the Southeast US (NC-TX). They implement and coordinate surveys involving the collection of fishery related data from the public. Responsibilities and functions are to develop, implement, operate, and manage an integrated fishery statistical data acquisition program for research and fishery management. In North Carolina, field agents are stationed in Wilmington and Manteo.

National Ocean Service (NOS) - [National Water Level Observation Network](#)

NOS operates six long-term, continuously operating tide stations in the state of North Carolina 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 Duck, Oregon Inlet, USCG Cape Hatteras, Beaufort (Duke Marine Lab), Wilmington, and Wrightsville Beach. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels and helps connect the water level to land.

National Ocean Service (NOS) - [Navigation Manager](#)

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in North Carolina. They help identify the navigational challenges facing marine transportation in North Carolina and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Norfolk, Virginia to support mariners and stakeholders in the Mid-Atlantic region.

National Ocean Service (NOS) - [Coastal and Estuarine Land Conservation Program](#)

The Coastal and Estuarine Land Conservation Program brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. To date the program has protected more than 100,000 acres of land with program funds and over 16,000 acres with an in-kind match. The program provides state and local governments with matching funds to purchase coastal and estuarine lands or obtain conservation easements for important lands threatened by development. One project in North Carolina was successfully completed, and this land is protected in perpetuity.

National Ocean Service (NOS) – [National Coastal Zone Management Program](#)

Through a unique federal-state partnership, NOAA's Office for Coastal Management works with the North Carolina Department of Environment Quality to implement the National Coastal Zone Management Program in North Carolina. NOAA provides the state coastal management program with financial and technical assistance to further the goals of the Coastal Zone Management Act and ensure coastal waters and lands are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

National Ocean Service (NOS) - [Coastal Management Fellowship](#)

This program matches postgraduate students with state and territory coastal zone programs to work on two-year projects proposed by the state or territory. The North Carolina Division of Coastal Management is hosting a fellow from 2016-2018. The fellow is engaging North Carolina coastal communities in an assessment of their vulnerability to coastal hazards and disruptions, and their needs for support in improving their resilience.

National Ocean Service (NOS) and National Marine Fisheries Service (NMFS) – [Coastal Resilience Grant Award](#)

These grants help coastal communities prepare for and recover from extreme weather events, climate hazards, and changing ocean conditions. The focus is on comprehensive regional approaches that use science-based solutions and rely on collaborative partnerships. This approach expands reach and impact, thereby ensuring maximum success. In North Carolina, the NOAA Office for Coastal Management awarded \$803,713 to the Coastal States Stewardship Foundation to facilitate future disaster recovery efforts across more than 30 coastal communities in North Carolina, South Carolina, Georgia, and Florida.

National Ocean Service (NOS) - [Scientific Support Coordinator and Regional Resource Coordinator](#)

NOAA's Office of Response and Restoration (OR&R) brings decades of experience, technical expertise and scientific analysis in response to oil and hazardous chemical spills. In addition to events that draw the national eye like Hurricane Sandy, OR&R also supports response to local emergencies. Nine regionally based Scientific Support Coordinators (SSCs) harness the input of a multi-disciplinary team to address issues such as oil slick trajectory forecasting, environmental tradeoffs, best practices, resources at risk, oil science and properties, and chemical hazard assessment to reduce risks to coastal habitats and resources. The SSC works directly with U.S. Coast Guard and the U.S. Environmental Protection Agency to provide critical scientific support to the Federal On-Scene Coordinator. OR&R also helps develop preparedness plans that identify spill response actions with the greatest environmental benefit and trains hundreds of members of the response community each year on the scientific and technical aspects of spills.

OR&R's Regional Resource Coordinators (RRCs) provide scientific and technical expertise and timely response to oil spills or hazardous materials releases to collect information, samples, and evidence that are time dependent and critical to support natural resource damage assessments throughout the coastal US. RRCs work on multi-disciplinary scientific, economic, and legal teams and are responsible for determining and quantifying injuries to NOAA trust natural resources through determination of injuries and pathway, and demonstration of causal mechanisms. The goal of the RRCs efforts is to determine, often through the Damage Assessment, Remediation, and Restoration Program, the appropriate amount and type of restoration required to restore injured NOAA trust resources and compensate the public for their lost use.

National Ocean Service (NOS) - [Atlantic Environmental Response Management Application](#)

Assessing important spatial information and designing successful restoration projects rely upon interpreting and mapping geographic information, including the location, duration, and impacts from oil spills, other hazardous materials, or debris released into the environment. Atlantic Environmental Response Management Application (ERMA®) is an online mapping tool that integrates both static and real-time data, such as Environmental Sensitivity Index maps, ship locations, weather, and ocean currents, in a centralized, easy-to-use format for environmental responders and decision makers. In 2012, Atlantic ERMA was employed as the Command Operational Picture for the U.S. Coast Guard's pollution response to Tropical Storm Sandy.

National Ocean Service (NOS) - [Marine Debris Projects and Partnerships](#)

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. In North Carolina, the MDP is partnering with the North Carolina Department of Environmental Quality to conduct aerial surveys to identify and map medium and large marine debris items, as well as remove approximately six tons of marine debris from areas of the Rachel Carson Reserve that are not easily accessible (part of the North Carolina National Estuarine Research Reserve).

The North Carolina Coastal Federation is conducting in two marine debris removal projects focused on working with local fishermen to remove ~12 tons of derelict crab pots, while creating a self-sustaining strategy for future gear removal and also removing medium-large derelict aquaculture gear from coastal wetlands and developing best management practices for disposal and prevention of marine debris from aquaculture. Additionally, a newly funded research project with the University of North Carolina Wilmington is investigating the ingestion of microplastics by black sea bass and how this may lead to transfer of debris through the local food chain. Previously, the MDP worked with state and local governments to develop the North Carolina Marine Debris Emergency Response Guide.

National Ocean Service (NOS) - [U.S. Integrated Ocean Observing System Program \(Mid-Atlantic and Southeast\)](#)

The U.S. Integrated Ocean Observing System, or IOOS®, is a federally and regionally coordinated observing system with 17 interagency and 11 regional partners. The System addresses regional and national needs for coastal, ocean, and Great Lakes data and information. This includes gathering and disseminating regional observations; data management; modeling and analysis; education and outreach; and research and development. The Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS) and the Southeast Coastal Ocean Observing Regional Association (SECOORA) are two of eleven Regional Associations that partner with the NOAA led Integrated Ocean Observing System (U.S. IOOS®) to address regional and national needs for coastal and ocean data and information. MARACOOS' 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 MARACOOS ocean region.

SECOORA coordinates coastal and ocean observing activities in the southeast. Its mission is to observe, understand, and increase awareness of our coastal ocean; promoting knowledge, economic and environmental health through strong regional partnerships. SECOORA invests in buoys and other technologies to collect information about the ocean to help keep North Carolinians safe. SECOORA's North Carolina investment includes 4 High Frequency Radars, 7 buoys, 2 data portals, a coupled forecast model, and data management and education activities.

National Weather Service (NWS) - [Buoys](#)

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve all of the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Mississippi, supports weather and marine warning and forecast services in real time by providing deep ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC manages the Volunteer Observing Ship program to acquire additional meteorological and oceanographic observations supporting NWS mission requirements. NDBC also supports operational and research programs of NOAA and other national and international organizations.

**[NC- 1](#)
[Durham](#)**

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 135 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS).

Wilson

Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at Imagination Station Science Museum](#)

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 complex environmental processes in a way that is simultaneously intuitive and captivating.

NC- 3

Beaufort

National Marine Fisheries Service (NMFS) - [Laboratory](#)

The Southeast Fisheries Science Center's research at the Beaufort laboratory conducts research on sea turtle and marine mammal demographics, life history, health, and habitat use to improve our ability to assess and manage protected species stocks. This research includes the longest running federal "in-water" sea turtle research program and the National Sea Turtle Aging Laboratory. Research is also conducted on gear technology to minimize fishery interactions with protected resources and reduce incidental bycatch mortality. The lab also conducts research and fishery-independent monitoring to support fisheries stock assessments and ecosystem management including the Southeast Fishery-Independent Survey (SEFIS) program, which surveys reef fish throughout the southeastern US Atlantic Ocean waters (working cooperatively with a NMFS funded program based in South Carolina) and performs multibeam mapping to improve knowledge of habitat distribution in southeastern US waters. Finally, the lab conducts fish stock assessments for federally managed species under the South Atlantic Fishery Management Council's jurisdiction; and for Gulf of Mexico and Atlantic menhaden. Sophisticated mathematical, ecological, chemical, biochemical, and satellite imagery and telemetry methodologies are used in the course of research and monitoring endeavors.

National Marine Fisheries Service (NMFS) - [Habitat Conservation Division Field Office](#)

The Southeast Regional Office has the Beaufort Field Office which is co-located with the National Ocean Service's Center for Coastal Fisheries Habitat Research and with the Beaufort Laboratory of NMFS Southeast Fisheries Science Center. This Office is responsible for implementing NMFS's habitat protection programs in North Carolina and in the adjacent waters of the Atlantic Ocean. In addition to conducting mandated essential fish habitat consultations associated with extensive coastal development activities, the Office participates in state and regional habitat conservation planning and restoration efforts, supports the infrastructure planning activities of North Carolina's Department of Transportation, participates in the planning processes for major federal water development projects such as port expansions, and restores diadromous fish habitat by working with the Federal Energy Regulatory Commission on hydropower licenses, ensuring fish passage, and with stakeholders to remove dams no longer needed.

National Marine Fisheries Service (NMFS) - [Headboat Program](#)

The NMFS headboat program, established in 1972 to develop a database on reef fish populations, collects data from recreational headboats operating in coastal waters of the Southeast United States and has become a principal source of data for reef fishery management in both the Gulf of Mexico and the United States South Atlantic. These data are used in landings reports, stock assessment modeling, and management advice for many important fish stocks. The program is based at the NMFS/Southeast Fisheries Science Center Beaufort Laboratory, and headboat samplers are located throughout the region.

National Ocean Service (NOS) - [Beaufort Laboratory](#)

The NOAA Beaufort Lab, opened in 1899, is the second oldest federal marine laboratory and home to scientists from NOAA's National Marine Fisheries Service and National Ocean Service. Operated by NCCOS, the Beaufort Lab is recognized for an extensive array of research including seagrasses, coral reefs, harmful algal blooms, seafloor mapping, aquaculture, and salt marsh ecology. The combination of world-class scientists with an ideal location has expanded our research to include understanding the effects of a changing climate on coastal and offshore ecosystems. The NOAA Beaufort Lab also houses the North Carolina Coastal Reserve and National Estuarine Research Reserve, which serve as living laboratories for scientists and students to learn about coastal systems. About 100 staff work out of the 60,000 square-foot laboratory resting on 13 acres of Pivers Island, an island shared with Duke University Marine Laboratory. Because of the variety of research and activities conducted here, the lab has a full SCUBA diving roster, small boats, aquaculture systems, high-tech laboratories for cell analysis, necropsy facilities, electronics workshops, classrooms, and a large auditorium.

Office of Oceanic and Atmospheric Research (OAR) and Office of the Chief Information Officer (CIO) - [N-Wave NOAA Science Network](#)

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

[Newport/Morehead City](#)

National Marine Fisheries Service (NMFS) - [Office of Law Enforcement](#)

NOAA's Office of Law Enforcement is the only conservation enforcement program (Federal or State) that is exclusively dedicated to Federal fisheries and marine resource enforcement. Its mission is to protect global marine resources by enforcing domestic laws and international treaties and obligations dedicated to protecting wildlife and their natural habitat. Our special agents and enforcement officers ensure compliance with these laws and take enforcement action if there are violations. Additionally, the Cooperative Enforcement Program allows NOAA the ability to leverage the resources and assistance of 27 coast states and U.S. territorial marine conservation law enforcement agencies in direct support of the Federal enforcement mission. Effective fisheries law enforcement is critical to creating a level playing field for U.S. fishermen and enabling sustainable fisheries to support vibrant coastal communities. The Morehead City field office is part of the Office of Law Enforcement's Southeast Division.

National Weather Service (NWS) - [Weather Forecast Office](#)

Located in Newport, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of northeastern North Carolina. This office also provides marine forecasts and warnings for most of the North Carolina coast including the Albemarle and Pamlico sounds. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards. Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.

[Roanoke Island, Pine Knoll Shores](#)

NOAA Office of Education - [Environmental Literacy Program](#)

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to build the capacity of institutions and networks to advance NOAA's mission through formal (K-12) and informal education at national, regional, and local levels. In North Carolina, ELP supports the Imagination Station Science and History Museum and the North Carolina Aquarium on Roanoke Island, both of which have permanent exhibits featuring NOAA's Science On a Sphere and are members of NOAA's SOS Users Collaborative Network. The SOS Network has more than 100 institutions worldwide, reaching over 60 million people, and shares best practices in using the sphere to bring the latest global forecasts and models to the public. ELP also supports the North Carolina Aquarium on Roanoke Island, at Fort Fisher, and at Pine Knoll Shores, as members of the Coastal Ecosystem Learning Center (CELC) Network, a consortium of 25 aquariums and marine science education centers with a reach of over 20 million people. The CELC Network works with NOAA and each member institution to engage the public in protecting coastal and marine ecosystems. ELP supports the Blue Heron Bowl in North Carolina, one of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards. ELP also supports the AMS DataStreme courses for K-12 educators through a grant and in-kind support. Local implementation teams in the state offer DataStreme courses that use weather, climate, and the ocean as contexts for teaching science and improving understanding about the Earth system. Additionally, Ellerbe Creek Watershed Association and Museum of Life and Science provide support to and receive support from a grant recipient to advance NOAA's mission.

[NC- 3, 7](#)

[Beaufort](#)

National Ocean Service (NOS) - [North Carolina National Estuarine Research Reserve](#)

The 10,568-acre North Carolina Research Reserve is managed by the North Carolina Department of Environmental Quality. The site is protected for long-term research and monitoring, stewardship, and education. The site has four components: Currituck Banks, Rachel Carson, Masonboro Island, and Zeke's Island. The reserve has conducted research on a variety of important topics including living shorelines, invasive species, productivity of benthic microalgae, the use of dredged material to nourish salt marshes, and effects of feral horses on salt marsh productivity. The reserve's education and training programs enhance estuarine awareness and provide a critical link between scientific research results and coastal management policies. The reserve is also a partner in the NOAA Sentinel Site Program.

[Cape Hatteras](#)

National Ocean Service (NOS) - [U.S.S. Monitor National Marine Sanctuary](#)

Since its designation in 1975 as the Nation's first national marine sanctuary, *Monitor* National Marine Sanctuary has protected and preserved the wreck site of the Civil War vessel, the USS *Monitor*. For more than a century, the *Monitor* laid undiscovered and protected by nature in 76 meters of water just 25 kilometers off Cape Hatteras, N.C. In August of 1973, scientists aboard Duke University's research vessel *Eastward* located the *Monitor*. Continuing in the spirit of preserving America's maritime heritage, the *Monitor* NMS has conducted archaeological expeditions off the North Carolina coast to document and survey other historically significant shipwrecks, such as those sunk during World War II's Battle of the Atlantic. Through partnerships with the State of North Carolina, East Carolina University, University of North Carolina Coastal Studies Institute, and the National Park Service, both Axis and Allied shipwrecks have been surveyed for nomination to the Federal Register of Historic Places.

The *Monitor* NMS also works closely with its partners, such as the NC Aquariums, the Graveyard of the Atlantic Museum, and school districts to support science, technology, engineering, and math education throughout the region. The

sanctuary relies on input from a citizen advisory council representing sanctuary constituent groups, who provide advice on sanctuary activities and management actions. By addressing current management issues and anticipating future challenges, we strive to preserve and protect our Nation's maritime heritage for this and future generations.

Manteo

Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere® at North Carolina Aquarium](#)

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 complex environmental processes in a way that is simultaneously intuitive and captivating.

NC- 4

Raleigh

National Environmental Satellite, Data, and Information Service (NESDIS) - [Satellite Climate Studies Branch](#)

The Satellite Climate Studies Branch (SCSB) exploits the capabilities of Earth-observing satellites to study the climate variations of the atmosphere, the land and the oceans. The Branch also uses remote satellite observations as well as model simulations to detect, monitor and forecast the effects of climate change on the environment, including effects on its ecosystems. The branch is co-located with the University of Maryland's Cooperative Institute for Climate and Satellites (CICS) at the M-square Research Complex in College Park, MD. This partnership between NOAA and CICS provides for cutting edge research to be performed in a university setting where NOAA and academic researchers work jointly on topics of high interest and priority to NOAA. The Cooperative Institute for Climate and Satellites is formed through a consortium of academic, non-profit and community organizations with leadership from the University of Maryland, College Park and North Carolina State University.

National Weather Service (NWS) - [Weather Forecast Office](#)

Located at the Centennial Campus of North Carolina State University, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of the northern Piedmont, northern and central Coastal Plain, and the Sandhills of North Carolina. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards. Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Joplin and Moore tornadoes, Hurricanes Katrina and Sandy, and the Sept. 11, 2001, terrorist attacks in New York City and Washington D.C. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.

Office of Oceanic and Atmospheric Research (OAR) - [Total Column Ozone Measurements](#)

NOAA's Earth System Research Laboratory Global Monitoring Division (ESRL/GMD) makes measurements of the column amounts of ozone between the earth's surface and the top of the atmosphere at a number of locations around the United States, including Raleigh, NC. The observations are obtained with ground-based spectrometers that measure the attenuation by ozone of ultraviolet light. This integrated ozone amount is critical in determining the amount of ultraviolet radiation reaching the earth's surface. Excess ultraviolet radiation is responsible for human skin cancer and is also harmful to other biogenic organisms. Column ozone measurements monitor changes in the stratospheric ozone layer resulting from human-produced chlorine and bromine compounds that destroy ozone. With controls now in place on the manufacture and use of these ozone-destroying compounds, it will be important to monitor the ozone layer for the expected recovery and determine whether other factors such as long-term climate change are influencing this recovery.

Office of Oceanic and Atmospheric Research (OAR) - [Ultraviolet Radiation Monitoring Network](#)

The Earth System Research Laboratory Global Monitoring Division (ESRL/GMD) operates an ultraviolet radiation (UV) monitoring network site in Raleigh. These measurements are done as part of ESRL/GMD's research on the Earth's surface radiation budget. Research efforts are devoted to the extent and cause of observed variations in long-term radiation and meteorological measurements, using satellite observations and climate model calculations. In addition, observations of spectral solar radiation are made for remote sensing of certain atmospheric constituents and spectral solar UV is measured for the investigation of the interaction of ozone and solar radiation. ESRL/GMD also provides instrument calibration services for partner UV monitoring networks.

[Chapel Hill](#)

National Environmental Satellite, Data, and Information Service (NESDIS) - [Regional Climate Centers](#)

NOAA NCEI's six Regional Climate Centers (RCCs) support the development and delivery of a wide range of place-based climate science and information products and services to assist decision makers in making informed decisions. The RCCs are a federal-university cooperative effort that supports the operational production and delivery of climate data and information to decision-makers at regional levels. The RCCs also participate in basic and applied climate research as well as user engagement and outreach activities. The service provided by the RCCs has evolved through time to become an efficient, user-driven program that exemplifies many of the components that have been cited for effective regional climate services.

[NC-5](#)

[Boone](#)

Office of Oceanic and Atmospheric Research (OAR) - [Surface Aerosol Monitoring](#)

NOAA's Earth System Research Laboratory Global Monitoring Division (ESRL/GMD) operates surface-based aerosol monitoring sites in seven states and one territory (Puerto Rico). ESRL/GMD's aerosol monitoring capabilities include continental sites in response to the finding that human activities primarily influence aerosols on regional/continental scales rather than on global scales. Aerosols create a significant perturbation of the Earth's radiative balance on regional scales. The measurements made include aerosol optical properties (how the particles absorb and scatter solar radiation), aerosol number concentration and chemical composition of the aerosol particles. The site is a partnership with Appalachian State University.

NC- 7

Wilmington

National Weather Service (NWS) - [Weather Forecast Office](#)

Located in Wilmington, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of southeastern North Carolina and northeastern South Carolina. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards. Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar. The radar data enables forecasters to issue warnings for tornadoes, thunderstorms, and flash floods.

NC- 10

Asheville

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 135 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS).

Office of Oceanic and Atmospheric Research (OAR) and Office of the Chief Information Officer (CIO) - [N-Wave NOAA Science Network](#)

N-Wave is NOAA's science network connecting NOAA, academic, and state research network communities to data and resources needed to advance environmental science.

National Environmental Satellite, Data, and Information Service (NESDIS) - [Comprehensive Large Array Storage System](#)

The Comprehensive Large Array Storage System (CLASS) is NOAA's premiere on-line facility for the distribution of NOAA and US Department of Defense (DoD) Polar-orbiting Operational Environmental Satellite (POES) data, NOAA's Geostationary Operational Environmental Satellite (GOES) data, and derived data. This data is also backed up at another site located in Boulder, CO.

Fort Fisher

NOAA Office of Education - [Environmental Literacy Program](#)

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to build the capacity of institutions and networks to advance NOAA's mission through formal (K-12) and informal education at national, regional, and local levels. In North Carolina, ELP supports the Imagination Station Science and History Museum and the North Carolina Aquarium on Roanoke Island, both of which have permanent exhibits featuring NOAA's Science On a Sphere and are members of NOAA's SOS Users Collaborative Network. The SOS Network has more than 100 institutions worldwide, reaching over 60 million people, and shares best practices in using the sphere to bring the latest global forecasts and models to the public.

ELP also supports the North Carolina Aquarium on Roanoke Island, at Fort Fisher, and at Pine Knoll Shores, as members of the Coastal Ecosystem Learning Center (CELC) Network, a consortium of 25 aquariums and marine science education centers with a reach of over 20 million people. The CELC Network works with NOAA and each member institution to engage the public in protecting coastal and marine ecosystems. ELP supports the Blue Heron Bowl in North Carolina, one of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards. ELP also supports the AMS DataStreme courses for K-12 educators through a grant and in-kind support. Local implementation teams in the state offer DataStreme courses that use weather, climate, and the ocean as contexts for teaching science and improving understanding about the Earth system. Additionally, Ellerbe Creek Watershed Association and Museum of Life and Science provide support to and receive support from a grant recipient to advance NOAA's mission.

NC-11

Asheville

National Environmental Satellite, Data, and Information Service (NESDIS) - [National Centers for Environmental Information](#)

NOAA's National Centers for Environmental Information (NCEI) are responsible for hosting and providing access to one of the most significant archives on earth, with comprehensive oceanic, atmospheric, and geophysical data. From the depths of the ocean to the surface of the sun and from million-year-old tree rings to near real-time satellite images, NCEI is the Nation's leading authority for environmental information. By preserving, stewarding, and maximizing the utility of the Federal government's billion-dollar investment in high-quality environmental data, NCEI remains committed to providing products and services to private industry and businesses, local to international governments, academia, as well as the general public. NCEI headquarters are located in Asheville, North Carolina with other major locations in Boulder, Colorado; Silver Spring, Maryland; and Stennis Space Center, Mississippi.

National Environmental Satellite, Data, and Information Service (NESDIS) - [Cooperative Institute for Climate and Satellites](#)

In 2009, the Cooperative Institute for Climate and Satellites (CICS) was formed through a national consortium of academic, non-profit, and community organizations, with leadership from the University of Maryland College Park (UMCP) and North Carolina State University with principal locations in College Park, Maryland and Asheville, North Carolina. CICS is administered as part of the NOAA/NESDIS/STAR Cooperative Research Program Institutes, which is the first experiment by NOAA and academic institutions to engage a geographically dispersed, diverse set of more than 20 partner institutions across the United States to address environmental change, their prediction, and potential impacts. CICS-NC is an Inter-Institutional Research Center with the UNC System, where it is known as the North Carolina Institute for Climate Studies. CICS-NC is co-located with NOAA's National Centers for Environmental Information in Asheville, NC. CICS's cooperative agreement was renewed for an additional five years in 2014.

National Environmental Satellite, Data, and Information Service (NESDIS) - [Comprehensive Large Array Storage System](#)

The CLASS system supports all NOAA missions and goals, and supports NOAA's crosscutting priority to provide an integrated data environment and data management system for NOAA's environmental data. CLASS is NOAA's premiere on-line facility for the distribution of data products and derived data from NOAA's satellite systems, including NOAA's polar-orbiting and geostationary environmental satellite systems and their follow-on programs. CLASS has a primary location in Asheville, NC and a secondary location in Boulder, CO, that contains environmental data from:

- NOAA's Polar-orbiting Satellites, including Suomi National Polar-orbiting Partnership (NPP)
- NOAA's Geostationary Satellites, including the recently launched GOES-16

- DoD's Defense Meteorological Satellite Program (DMSP)
- Altimetry / Sea Surface Height Data (Jason-2 and Jason-3)
- Sea Surface Temperature data (SST)
- RADARSAT
- Global Navigation Satellite Systems (GNSS)

NC-12

Greensboro

NOAA Office of Education - [Interdisciplinary Scientific Environmental Technology Cooperative Science Center](#)

North Carolina A&T State University is the lead institution in the seven-member consortium. The other seven universities are California State University-Fresno, City College of the City University of New York, Fisk University, North Carolina State University, University of Alaska Southeast and the University of Minnesota. The Interdisciplinary Scientific Environmental Technology Cooperative Science Center focuses its research on the development of technologies that support the prediction and understanding of climate and environmental change. ISETCSC works with NOAA's Earth System Research Laboratory, whose strategic plan calls for observing and understanding the Earth system and for developing products that will advance NOAA's environmental information and service on the global-to-local scale.

NC-13

Wilson

NOAA Office of Education - [Environmental Literacy Program](#)

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to build the capacity of institutions and networks to advance NOAA's mission through formal (K-12) and informal education at national, regional, and local levels. In North Carolina, ELP supports the Imagination Station Science and History Museum and the North Carolina Aquarium on Roanoke Island, both of which have permanent exhibits featuring NOAA's Science On a Sphere and are members of NOAA's SOS Users Collaborative Network. The SOS Network has more than 100 institutions worldwide, reaching over 60 million people, and shares best practices in using the sphere to bring the latest global forecasts and models to the public. ELP also supports the North Carolina Aquarium on Roanoke Island, at Fort Fisher, and at Pine Knoll Shores, as members of the Coastal Ecosystem Learning Center (CELC) Network, a consortium of 25 aquariums and marine science education centers with a reach of over 20 million people. The CELC Network works with NOAA and each member institution to engage the public in protecting coastal and marine ecosystems. ELP supports the Blue Heron Bowl in North Carolina, one of 25 regional competitions of the National Ocean Sciences Bowl (NOSB). The NOSB is an academic competition that engages high school students in learning about ocean sciences and related STEM careers while helping them become knowledgeable citizens and environmental stewards. ELP also supports the AMS DataStreme courses for K-12 educators through a grant and in-kind support. Local implementation teams in the state offer DataStreme courses that use weather, climate, and the ocean as contexts for teaching science and improving understanding about the Earth system. Additionally, Ellerbe Creek Watershed Association and Museum of Life and Science provide support to and receive support from a grant recipient to advance NOAA's mission.

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NOAA In Your State



North Carolina



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