

Congressional Brief: Sample of 2009 NOAA Activities

NOAA's work touches the daily lives of every person in the United States and in much of the world. From weather forecasts in the Midwest to fisheries management on the East Coast, from safe navigation to coastal services in the Gulf, from remote sensing to climate research and ocean exploration, NOAA's products and services contribute to the foundation of a healthy economy and affect approximately one-third of the nation's gross domestic product.

NOAA worked with Congress to support important legislation including:



- Passage of the *Omnibus Public Land management Act of 2009*, which included several NOAA related sections:
 - Ocean exploration
 - *NOAA Undersea Research Program Act of 2009*
 - *Ocean and Coastal Mapping Integration Act*
 - *Integrated Coastal and Ocean Observation System Act of 2009*
 - *Federal Ocean Acidification research and Monitoring Act of 2009*
 - Coastal and Estuarine Land Conservation Program (CELP)
 - SECURE Water Bill
- Consideration of shark conservation, sanctuary expansion, corals, fisheries, resource protection, and climate change legislation.

Complete details on the stories highlighted below may be viewed at: <http://www.noaa.gov/newsarchive.html>.

Did you know? NOAA protects critical habitats and builds sustainable fisheries.



Fishermen hauling in Atlantic surf clams.

January – Economic Report Finds Commercial and Recreational Saltwater Fishing Generated More Than Two Million Jobs.

U.S. commercial and recreational saltwater fishing generated more than \$185 billion in sales and supported more than two million jobs in 2006, according to a new economic report released by NOAA's National Marine Fisheries Service. The commercial fishing industry — harvesters, seafood processors and dealers, seafood wholesalers and seafood retailers — generated \$103 billion in sales, \$44 billion in income and supported 1.5 million jobs in 2006, the most recent year included in the report, [Fisheries Economics of the United States 2006](#).



Coastal wetlands protect coastal communities from erosion.

February – New Report Shows Loss of Coastal Wetlands in Eastern United States.

While the nation as a whole gained freshwater wetlands from 1998 to 2004, a new report by NOAA and the U.S. Fish and Wildlife Service documents a continuing loss of coastal wetlands in the eastern United States. The new report, [Status and Trends of Wetlands in the Coastal Watersheds of the Eastern United States](#), shows a loss of 59,000 acres each year in the coastal watersheds of the Great Lakes, Atlantic Ocean and Gulf of Mexico from 1998 to 2004.

April – Innovative Approach to Chesapeake Bay Restoration. After a decade-long effort, nearly 80 percent of the vital habitat at Jug Bay has been restored. Located in Upper Marlboro, Maryland, Jug Bay is one of 27 reserves in the [National Estuarine Research Reserve System](#) managed by NOAA in partnership with coastal states, protecting over 1.3 million acres of estuarine land and water across the country. The decade-long restoration underscores the value of identifying the compounding effects of climate change and other environmental pressures and addressing them through science-based restoration. Comprising over 2,000 acres of open water, tidal marshes, swamps and fields, Jug Bay is situated near the middle of the Patuxent River, a tributary of the Chesapeake Bay. The Chesapeake Bay is the nation's largest estuary and one of the world's most productive bodies of water.



NOAA volunteers dug up and transplanted 1,000 wild rice plants to six different areas of Jug Bay during a 2007 NOAA Restoration Day event.

August – Fisheries Plan Approved for the Arctic. U.S. Secretary of Commerce Gary Locke approved a plan to prohibit the expansion of commercial fishing in federal Arctic waters until researchers gather sufficient information on fish and the Arctic marine environment to prevent adverse impacts of commercial harvesting activity on the ecosystem. The [Arctic Fishery Management Plan](#), will be implemented through regulations to be published in the *Federal Register*. Fisheries managers have identified Arctic cod, saffron cod, and snow crab as likely initial target species for commercial fishing in the region. The plan governs any future commercial fishing for finfish and shellfish in federal waters, except Pacific salmon and Pacific halibut, which are managed under other authorities. It does not affect fisheries for salmon, whitefish and shellfish in Alaskan waters near the Arctic shore. The fishery management plan also does not affect subsistence fishing or hunting in the Arctic.



Removing halibut in Sitka, Alaska. The halibut catch share program has been in place more than a decade.

December – NOAA Encourages Use of Catch Shares to End Overfishing. NOAA released for public comment a draft national policy encouraging the use of catch shares, a fishery management tool that aims to end overfishing and rebuild and sustain fishing jobs and fishing communities. Catch share programs, which include Limited Access Privilege programs and individual fishing quotas, have been used in the U.S. since 1990 and are now used in 13 different commercial fisheries. Four new programs will begin over the next year. NOAA estimates that rebuilding U.S. fish stocks would increase annual commercial dockside values by an estimated \$2.2 billion, and help support jobs in the seafood industry and across the broader economy.

December – NOAA Assesses Post-Tsunami Debris in American Samoa. A NOAA team has begun a survey of marine debris generated by the devastating September 29 tsunami in American Samoa. The team is carefully measuring the amount and impact of debris such as roofing and domestic goods in coral reef habitat near villages severely affected by the tsunami. Several areas have been surveyed by NOAA divers including waters off two of the hardest hit villages, Amanave and Leone, as well as the Fagatele Bay National Marine Sanctuary. While some marine debris has been removed, including over 1,200 pounds of debris from Leone Bay, NOAA's priority is measuring and documenting the affects of the debris.

December – National Saltwater Angler Registry Opens on New Years Day. Saltwater recreational fishermen have long expressed concerns about the data used to estimate the effects of recreational fishing on ocean resources and the nation's economy. The National Saltwater Angler Registry will help address that concern by providing a comprehensive list of the nation's saltwater anglers that will be used to improve surveys of fishermen. These surveys are used by NOAA scientists to assess the health of fish stocks and to estimate the economic contributions of anglers.



Charter vessel anglers netting a salmon.

Did you know? NOAA conducts critical research and expeditions to advance our understanding of the oceans and atmosphere.



A NOAA Twin Otter will provide aerial support for marine research and management.

January – NOAA Twin Otter Aircraft to Support West Coast Ocean Research, Management. Senior federal officials dedicated a specially equipped twin-engine NOAA aircraft that will support ocean research and management along the West Coast. The [NOAA Office of Marine and Aviation Operations](#) is basing the plane and flight crew in Monterey, California, to meet the needs of NOAA programs and national marine sanctuaries. NOAA will use the [DHC-6 Twin Otter aircraft](#) to observe marine mammals and other living ocean resources, conduct offshore and coastal surveys, and support emergency response and enforcement missions.

January – New Study Shows Climate Change Largely Irreversible. A new scientific study led by NOAA reaches a powerful conclusion about the climate change caused by future increases of carbon dioxide: to a large extent, there's no going back. The pioneering study, led by NOAA senior scientist Susan Solomon, shows how changes in surface temperature, rainfall, and sea level are largely irreversible for more than 1,000 years after carbon dioxide (CO₂) emissions are completely stopped. The findings appear during the week of January 26 in the Proceedings of the National Academy of Sciences.

February – NOAA's New Polar Orbiting Satellite is Launched. A new NOAA polar-orbiting environmental satellite was launched from Vandenberg Air Force Base in California and is now circling the globe every 102 minutes taking images and measurements to support NOAA's efforts to forecast and monitor the environment. Unique with this satellite is a new data collection system that will relay meteorological, oceanographic data to help researchers improve their study of Earth's environment.



September – NOAA-Research to Improve Management of Toxic Red Tides in the Gulf of Maine. NOAA has awarded \$457,000 in competitive grant funding to support three projects to better track and manage outbreaks of toxic red tide algae that threaten public health and New England's shellfish industry. In July 2009, a red tide event also caused an unprecedented near-complete shutdown of shellfish harvesting in Maine. In response, NOAA provided emergency funding to support red tide surveys to supplement forecasts and help managers plan monitoring strategies. Paralytic shellfish poisoning, a potentially fatal illness contracted by humans when they consume shellfish contaminated by toxins produced by the red tide algae, forces closures of productive shellfisheries every year. In 2005, lost shellfish sales caused by red tide closures in Maine and Massachusetts alone totaled \$23 million.

October – Changing Arctic Affecting Air, Ocean, and Everything in Between. Despite the fact that summer 2009 had more sea ice than in 2007 or 2008; scientists are seeing drastic changes in the region from just five years ago and at rates faster than anticipated. The findings were presented today in the annual update of the Arctic Report Card, a collaborative effort of 71 national and international scientists. The Arctic Report Card is an annual assessment that was introduced by [NOAA's Climate Program Office](#) in 2006 and is an example of the suite of climate services to which NOAA contributes.



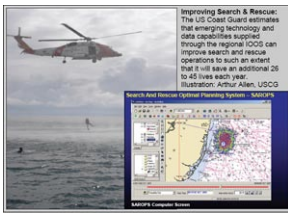
ROV Jason gets a close view of magma explosions.

December – Scientists Discover and Image Deep-Ocean Volcano. Scientists funded by NOAA and the National Science Foundation recorded the deepest erupting volcano yet discovered, describing high-definition video of the undersea eruption as "spectacular." Eruption of the West Mata volcano, discovered in May, occurred nearly 4,000 feet below the surface of the Pacific Ocean, in an area bounded by Fiji, Tonga and Samoa. Water from the volcano is very acidic, with some samples collected directly above the eruption measuring somewhere between battery acid and stomach acid.

Did you know? NOAA protects lives and livelihoods.

February – NOAA Says Prepare for Major Flooding on Red River. NOAA is alerting residents in the Red River Valley, which separates North Dakota and Minnesota, of the potential for significant flooding in their communities this spring. Several factors led to this early projection. The area has received between 200 and 300 percent of normal precipitation since September 2008 and December saw 23 days of snow, leaving water content of snowpack at 170 to 300 percent above normal.

March – NOAA's National Weather Service Expands Weather Radio Coverage. Residents and visitors in eastern Kansas and western Missouri now have immediate access to weather information thanks to a new [NOAA Weather Radio-All Hazards](#) transmitter, recently installed in Linn County, Kansas. The new all hazards transmitter is strategically located to provide coverage to all or parts of Allen, Anderson, Bourbon, Franklin, Linn, and Miami counties in Kansas, as well as Bates, Cass and, Vernon counties in Missouri.



Improving search and rescue.

May – NOAA, U.S. Coast Guard: New Ocean Current Data to Improve Search and Rescue Activities. A new set of ocean observing data that enhances the ability to track probable paths of victims and drifting survivor craft should improve search and rescue efforts along the U.S. coast. The data comes from the [Integrated Ocean Observing System \(IOOS®\)](#), part of a joint effort among NOAA, the Mid-Atlantic Coastal Ocean Observing Regional Association, the U.S. Coast Guard, and the Department of Homeland Security.

December – NOAA Installs System to Improve Safety and Efficiency of Ships Along the Cherry Point Reach in Washington State. Ship captains and pleasure boaters can now get free real-time information on water and weather conditions for Cherry Point, Washington, from a newly installed NOAA ocean observing system that makes piloting a ship safer and more efficient. The NOAA Physical Oceanographic Real-Time System (PORTS®) at Cherry Point provides observations of tides, currents, water and air temperature, barometric pressure and winds. Collected from a variety of sensors in and around the port, the data is available [online](#) and by phone: 888-817-7794 (toll-free).

December – Winter, Nighttime Tornadoes Pose Greatest Risk. Shrouded in darkness, nighttime tornadoes can be deadly, especially during the winter season when people are not accustomed to such severe weather. Given the dangers, forecasters with [NOAA's National Weather Service \(NWS\)](#) is increasing efforts to alert people of a potential threat in their area before they go to sleep. The [NOAA Storm Prediction Center](#), in conjunction with NWS offices across the country, is issuing severe weather outlooks when forecast conditions are favorable for strong and violent tornadoes to occur overnight.

Year Round – NOAA Issues Millions of Forecasts, Warnings, Alerts, and Outlooks to Help Protect the Lives and Livelihoods of Every American.

- Daily national, regional, and local weather forecasts and warnings
- Hurricane, tornado, and inland flooding warnings and watches
- Seasonal weather outlooks for hurricanes, wildland fire, drought, temperature, and precipitation
- Marine and aviation forecasts, advisories, and warnings and tsunami alerts and warnings
- Space weather warnings, watches, alerts, and predictions

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