



## CENTER FOR OPERATIONAL OCEANOGRAPHIC PRODUCTS & SERVICES

*highlights*

*The CENTER FOR OPERATIONAL OCEANOGRAPHIC PRODUCTS AND SERVICES (CO-OPS) collects and distributes observations and predictions, including tides and currents, to ensure safe, efficient, and environmentally sound maritime commerce.*

Throughout fiscal year 2008, CO-OPS continued to provide water-level and current information to support safe and efficient marine navigation, the understanding of climate change, coastal hazards preparedness and response, and sound ecosystem management for our coastal regions and the Great Lakes.

### NEW PORTS® INSTALLED IN THREE STATES

The Physical Oceanographic Real-Time System® (PORTS®) provides economic and safety benefits by supplying mariners with real-time data that can reduce the risk of vessel groundings and increase the amount of cargo moved through a port. In 2008, CO-OPS installed four new PORTS® in Pascagoula, Mississippi; Gulfport, Mississippi; Sabine-Neches, Texas; and Cherry Point, Oregon. The Cherry Point PORTS® supports the British Petroleum Cherry Point Refinery's safety and oil spill prevention programs by providing real-time data to assist in vessel traffic management and to support decision making regarding the safety and efficacy of oil transfer activities. The Pascagoula and Gulfport observation systems assist the State of Mississippi with safe and efficient transport of commodities through its waterways, contributing \$1.4 billion to the State economy (almost 3 percent of the Gross State Product) including some 34,000 direct and indirect jobs paying \$765 million in wages. The Sabine-Neches PORTS® supports the safe transport of liquid nitrogen gas (LNG) to the LNG terminals recently established in the area. The data are online at <http://tidesandcurrents.noaa.gov/ports.html>.



## THREE NEW PORTS® DATA PRODUCTS RELEASED

CO-OPS released three new products utilizing PORTS® data and further enhancing their value to users. The first product, Automated Real-Time Narrative Summaries (<http://tidesandcurrents.noaa.gov/arns.html>), is a brief description summarizing the observation received from data sensors within PORTS®. The primary benefit is to provide users with a concise, real-time synopsis of the conditions of an estuary, port, or harbor. The second product, MyPORTS, allows users to create a custom Web page featuring any data or product offered by PORTS®. The third product, a PORTS® mobile phone/PDA application (<http://mobile.tidesandcurrents.noaa.gov/>), allows users with Internet access on their mobile phones to view observational data for all PORTS® products directly on their mobile devices. The site features easy, one-click access to any PORTS® and an easily readable display summarizing the most recent data for all stations.

## NATIONAL WATER LEVEL OBSERVATION NETWORK ENHANCEMENTS

During the summer of 2008, CO-OPS constructed four NOAA "Sentinels of the Coast" at Shell Beach, Louisiana; Bay Waveland, Mississippi; Amerada Pass, Louisiana; and Calcasieu Pass, Louisiana. NOAA Sentinels are water-level observing stations that have been built to withstand Category 4 hurricanes and deliver real-time storm data, including water levels and weather conditions, during severe coastal weather events. This information is critical for developing vulnerability assessments, providing more accurate marine weather and flood forecasts, evacuation planning and execution, determining when to open and close locks, and facilitating the reopening of ports after storms pass. In addition to the construction of NOAA Sentinels, CO-OPS began a two-year effort to add meteorological sensors to National Water Level Observation Network stations to support safe and efficient marine navigation and improve National Weather Service forecasts. A total of 25 stations were upgraded in fiscal year 2008. The upgrades included the installation of wind, barometric pressure, and air temperature sensors, followed by monitoring and validation of the data.

## MAJOR TIDAL CURRENT METER SURVEYS COMPLETED IN SOUTHEAST ALASKA & FLORIDA

CO-OPS's National Current Observation Program conducted several major surveys of tidal currents in response to user requests. Data have been collected in southeast Alaska since 2001 to help update tidal current predictions critical to safe navigation and other applications that are published annually in the U.S. Tidal Current Tables, which can be found on the CO-OPS Web site (<http://tidesandcurrents.noaa.gov/>). During the summer of 2008, the single largest survey of current meters was successfully completed as 50 acoustic Doppler current profilers were deployed in the vicinity of Juneau, Alaska. NOAA also conducted current surveys in St. Andrews Bay, Florida, following requests for up-to-date information on currents from members of the navigation community and marine resource users. The St. Andrews Bay current survey projects support navigation and the operation of deep draft vessels in the area and benefit various State and Federal agencies. The predictions for all occupied stations will be updated or added to the 2010 Tidal Current Tables.

## COLD CLIMATE WATER-LEVEL DATA PROJECT BEGINS

CO-OPS developed an innovative system to collect water-level data in remote cold climate regions where there is a lack of physical infrastructure and problems with ice accumulation that prevent traditional methods from being used. Two specially designed bottom-mounted water-level gauges were sent to Barrow, Alaska, to begin year-round water-level measurements. The platforms were deployed in approximately 100 feet of water in the summer of 2008, and will continue collecting data for one year. This continuous data set will be used for long-term sea-level analysis and climate change monitoring efforts.



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