



US Army Corps  
of Engineers®

## Coastal Field Data Collection

# Integrated Ocean Observing System (IOOS), an Inter-agency Program

**Issue** Successful design, construction, operation, and maintenance of coastal projects require climatological and/or real-time environmental data. Traditionally the Corps has collected only long-term wave data. However, the requirements of regional sediment management and systems approaches to ecosystem management require observations of many other parameters (climate change, currents, turbidity, salinity, water quality, habitat, etc.). These data are not normally available, nor are data on ambient variation (i.e. natural fluctuations in turbidity). To expand the number of observed variables available and their spatial and temporal coverage and, the Corps' is participating in the Integrated Ocean Observing System or IOOS, an interagency activity under the Joint Subcommittee of Ocean Science and Technology (JSOST) and a recommendation of the President's *Ocean Action Plan*.

**Research Approach** The IOOS is developing through the integration of existing observations and expansion to fill gaps. The IOOS is an end-to-end system which includes observing, modeling, online data discovery and delivery, education and outreach. Federal agencies are supplying a National backbone of observations (i.e., deepwater buoys, wave gauges, tide gauges, stream gauges, etc) while eleven regional associations (shown below) serve local user requirements through observations and modeling. Implementation of data standards allows users to easily locate and access IOOS data streams and to develop customized products and displays. The USACE is participating in the development of IOOS and is working to insure that the program is responsive to Corps' requirements. Opportunities exist for USACE Districts to participate, and Districts are encouraged to join their local IOOS regional association. All collected IOOS data are provided to the National Oceanic and Atmospheric Administration (NOAA) National Data Buoy Center for distribution.



**Partners** The national IOOS lead is NOAA. There are 18 other agencies including the U.S. Navy, the U.S. Geological Survey, National Science Foundation, National Aeronautics and Space Administration, and Department of Homeland Security.

**Products** The rich array of real-time and archived data sets is available online and specialized data products can be found at each Regional Association's web site. Additional IOOS information can be found at <http://ioos.gov> and <http://www.ndbc.noaa.gov>. An interactive map showing all IOOS observations can be found here: <http://www.obsregistry.org/index.php>.

**Point of Contact** The Corps' liaison to the NOAA IOOS office is Linda Lillycrop, Coastal and Hydraulics Laboratory, U.S. Army Engineer Research and Development Center, Vicksburg, MS, (301) 427-2431, Email: [Linda.S.Lillycrop@usace.army.mil](mailto:Linda.S.Lillycrop@usace.army.mil)