Tracking the Gulf oil spill

—by Alice Lipowicz

The National Oceanic and Atmospheric Administration launched June 15th an exciting new web tool—the GeoPlatform—which offers the general public the same information about the Gulf oil spill that respondents are receiving.

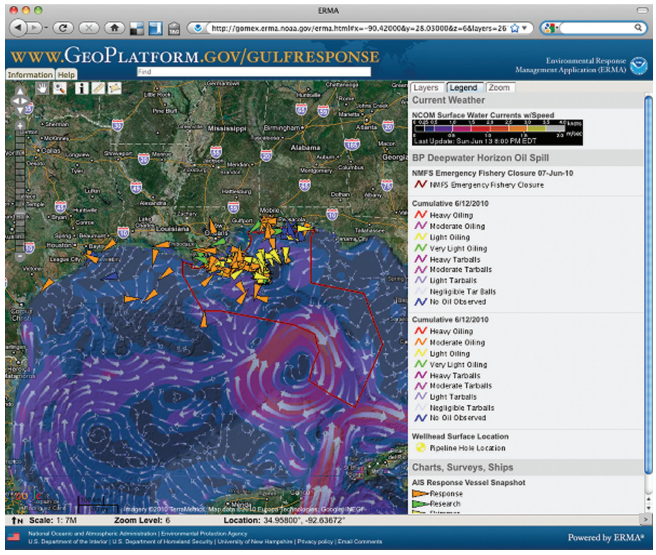
The site employs the Environmental Response Management Application (ERMA®), a web-based GIS platform developed through a joint partnership between NOAA and the University of New Hampshire's Coastal Response Research Center. The interactive mapping features of the tool make it possible for the site to deliver near-real time (updated approximately every 10 minutes) AIS data from the vessels supporting the largest oil spill response and recovery operation in U.S. history.

Originally designed for responders who make operational decisions on the oil spill disaster, the platform integrates the latest data on the oil spill's trajectory, closed fishery areas, wildlife, and Gulf resources—such as oiled shoreline and daily position of research ships—into one customizable, interactive map.

Apart from NOAA, the U.S. Coast Guard, the Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the Homeland Security Department, NASA and several states are contributing data to the GeoPlatform [http://www.GeoPlatform.gov/gulfresponse].

"This web site provides users with an expansive, yet detailed geographic picture of what's going on with the spill," said Jane Lubchenco, NOAA administrator. "It's a common operational picture that allows the American people to see how their government is responding to the crisis."

A separate public web site—Deepwater Horizon Response—has been offering news, announcements, and information about the disaster. This website is operated by the Deepwater Horizon Unified Command, which consists of DHS, Defense and Interior Departments, other federal agencies, BP, and other private entities. In addition, the Unified Command recently set up a Deepwater Horizon Response Facebook page that links to its other web site. [Alice Lipowicz is a writer for Defense Systems.]



Modernizing NSRS

—by Keeley Belva

NOAA's National Geodetic Survey (http://www.ngs.noaa.gov)—the official U.S. government source for determining precise latitude, longitude, and elevation—is implementing a modernization effort which takes into account advances in GPS and other technologies. The effort is important to all activities requiring accurate positioning information, including levee construction projects, the design of evacuation routes in hurricane-prone areas, and the forecast of sea-level rise in coastal communities. The modernized National Spatial Reference System will take even greater advantage of newer technologies and better track changes in position and elevation over time to improve and update digital maps.

The proposed changes in determining position and elevation over time will improve and update digital maps and will have a bearing on the work of civilian federal mapping authorities, as well as state and municipal governments that have adopted the National Spatial Reference System.

"The reference frame in the past was hampered by being held static in time on an Earth that is constantly changing," said Juliana Blackwell, director of NOAA's National Geodetic Survey. "The new methodologies better capture changes such as subsidence or sea level rise, and the improved points of reference benefit everyone using positioning data for the foundation of their work."

A modernized reference system will allow users to easily calculate accurate positions using a survey-grade GPS receiver in conjunction with a scientific model of Earth's gravity field. In 2009, a NOAA commissioned, independent socio-economic study estimated the value of these modernization efforts to be $4.8 billion over the next 15 years, including $2.2 billion in avoidance costs from improved floodplain management.

"An improved vertical datum means elevation measurements will become more accurate and less expensive, helping the National Flood Insurance Program to reduce the impacts and losses caused by flooding," said Paul Rooney, a Mapping Technology Specialist at the Federal Emergency Management Agency (FEMA).

A Federal Geospatial Summit held at NOAA headquarters in Silver Spring, Md. [and reported on p. 23 of this issue] marked the beginning of a dialogue with users to help plan far in advance for the necessary changes to infrastructure and operating methodologies.