

## **CERA Web Interface to Support Storm Surge Forecasting**

LSU teams at the Center for Computation & Technology and the School of the Coast & Environment have developed an interactive, and dynamic **web interface** titled **Coastal Emergency Risks Assessment, or CERA**, providing operational advisory services related to impending hurricane events and other coastal hazards.

CERA is a component of the Advanced Surge Guidance System, or ASGS. The ASGS is a **multi-state storm surge** guidance effort including regional teams from Louisiana State University, the University of Louisiana at Lafayette, and the University of North Carolina at Chapel Hill.

Based on the Advanced Circulation and Storm Surge model, or ADCIRC, coupled with the SWAN Wave model, the ASGS is a sophisticated **software package** that combines software programming, numerical analysis, coastal engineering, high performance computing, and a dynamic web interface to generate storm surge guidance for approaching hurricanes in near real-time.

The CERA web application provides an easy-to-use interactive web interface which allows emergency managers to quickly evaluate critical situations. CERA works closely with various local, state and federal emergency response teams. During Hurricane Irene in 2011, that impacted the East Coast from North Carolina to Vermont, ASGS and the CERA website received tremendous attention from federal and state agencies and residents of those impacted states.

Next year the ASGS effort will be extended to Mississippi and Alabama, in addition to south Louisiana.