

Notre Dame researcher studying Hurricane Irene's storm surge

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While a great number of people are preparing to evacuate in the face of Hurricane Irene, Andrew Kennedy, a researcher in the University of Notre Dame Department of Civil Engineering and Geological Sciences, rushed to the outer banks of North Carolina yesterday in anticipation of its arrival.

Kennedy, a member of Notre Dame's Hydraulic Computation Research Group, is on a helicopter rapidly deploying wave and surge gauges for data collection in conjunction with Irene.

"Irene looks likely to have large impacts in North Carolina and I am at the outer banks to deploy wave/surge gauges with some local North Carolina researchers I have worked with before," Kennedy said."

"Depending on landfall location and strength, there is potential for a new inlet to be created as a barrier island is cut, and strong to serve building damage. Irene is large and strong and the best hope for North Carolina is that it goes offshore. If it does, though, it will just push the problem north to New York or New England, so someone is going to get hit badly."

Kennedy's research focuses on waves, surge and currents in the coastal ocean and their effects on human activities.

Storm surge is the wall of water pushed onto land as a hurricane comes ashore. Although high winds are associated with hurricanes, storm surge is actually a greater danger and a leading cause of destruction and death.

Kennedy's colleague Joannes Westerink, the Notre Dame Chair in Computational Hydraulics, is one of the developers of the [Advanced Circulation Model](#), or ADCIRC, an authoritative computer model for storm surge prediction. The U.S. Army Corps of Engineers, the Federal Emergency Management Agency and the state of Louisiana use the model to determine water levels due to [hurricane](#) surge as well as to design appropriate levee heights and alignments.

Provided by University of Notre Dame

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