

# Computer used to simulate storm surge

September 14 2005

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Federal and state emergency agencies are using a supercomputer program to simulate Hurricane Katrina's storm surge to prepare for future storms.

The detailed model, developed using Louisiana State University's supercomputer, shows a 15-foot dome of water forming in the Gulf of Mexico and then slamming into levees east of New Orleans, the New Orleans Times-Picayune reported Wednesday.

Propelled by 140-mph winds, the massive storm surge produces flooding over most of the city from Lake Pontchartrain and then builds to a 30-foot wave as it moves toward the Mississippi coast near the Biloxi-Gulfport area.

The computer model called AdCirc is to be used by the Army Corps of Engineers, the Federal Emergency Management Agency and other organizations to study storm surge dynamics, the newspaper said.

AdCirc was developed by programmers at five universities, as well as by researchers with the corps and the U.S. Navy.

Using basic fluid dynamic equations, it creates a virtual landscape, including detailed data on ocean, lake and river depths. It then is able to model how a wind-driven storm surge develops and changes shape as it strikes land, the newspaper reported.

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Citation: Computer used to simulate storm surge (2005, September 14) retrieved 23 March 2023 from <https://phys.org/news/2005-09-simulate-storm-surge.html>

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