New weather model predicts Rita

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An advanced research weather model run by the National Center for Atmospheric Research in Boulder, Colo., is watching Hurricane Rita.

Meteorologists believe the research model will provide scientists with an idea of how well forecast models of the future might predict hurricane track, intensity, rain and wind features.

Using a high-resolution grid of data points about 2.5 miles apart, the model projects the location of fine-scale rain bands and eyewall structures 48 hours in advance.

It's those storm features that determine where the greatest damage from a hurricane might occur, says NCAR weather expert Chris Davis. Current operational forecast models use a coarser resolution and must approximate the cloud processes affecting intensity and precipitation.

Known as ARW, the computer model is a joint effort by university and government scientists.

"ARW intensity predictions are very encouraging," said Davis. "Five years ago, accurate intensity predictions weren't even possible."

The model predicted in detail the collapse of Hurricane Katrina's eyewall at landfall and the shift of precipitation to the north side of the storm.

Researchers are testing how computer simulations of a hurricane's most destructive features might improve damage model projections, leading

to better warnings.