Hurricane Model Sized Up

By KEVIN BEGOS Tribune correspondent

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TALLAHASSEE - A public software model used to help estimate and set hurricane insurance rates is in the final stages of a state review process, but the end result may not provide much relief to Florida consumers.

Creation of the public model was authorized by the Legislature in 2001 as a check and balance against private models that regulators did not have full access to.

Project director Shahid Hamid said that after an extensive review over the past few months, he is confident the state will have "a very good model in its own right."

But the inherent uncertainty of estimating weather means that no one can really say that any model is the best, or is 100 percent correct, said Hamid, who is based at Florida International University in Miami.

State Chief Financial Officer Alex Sink has been concerned over recent tests suggesting that one version of the public model delivered far higher loss estimates than private models, said her spokeswoman, Tara Klimek. However, she said, Sink is waiting to see what the commission charged with reviewing the hurricane models does next week. "They're the experts," she said.

Hamid and the Office of Insurance Regulation disputed that and said the most relevant test showed that the public model comes in at a middle range. In that test, a preliminary version of the model estimated an average annual storm loss of $4.7 billion. The private model estimates came in at $3.8 billion, $3.9 billion, $4.7 billion and $7.9 billion.

However, even the test cited by the Office of Insurance Regulation suggested that in some cases an insurance company could use the public model to justify higher rates than two of the private models.

An independent state review team conducted inspections of the public model in March and early May and "expressed concern over the stability of model results including substantial changes in loss costs between model version 1.5 and 2.0 followed by substantial changes in loss costs between model version 2.0 and 2.5."

Hamid disputed that finding. "We are basically saying that the question of 'substantial' is debatable. When you put everything together, the change in the loss cost is not substantial. It has increased, but it is modest," Hamid said.

Office of Insurance Regulation spokesman Jonathan Kees said in an e-mail last month that "the public model was not designed to reduce rates, nor was it designed to increase rates."

The point, Hamid said, is that impartial scientists should only try to build the best model they can, not one rigged to produce certain results.

Roger Pielke Jr., an expert on climate models at the University of Colorado, agreed with that. "A truly accurate public model will reflect the wide range of uncertainties that exist, and not selectively choose among them for pricing or any other reason," Pielke said in an e-mail.

Hamid is confident in the science behind the public model, but he is worried about another variable. "One of the constraints I have is the budget I have," he said. "We have been working on shoestring budgets."

The Legislature authorized $2.7 million to build the model, but Hamid said some of his partners in the project "are basically saying we cannot operate within this budget."

He estimated that private hurricane models cost three or four times that amount to develop.

To add to the pressures, some said that if the public model sometimes delivers higher rates, that may be because they are scientifically justified.

"The point is, they have shown higher losses than even the private models have shown," said Gary Landry, vice president of the Florida Insurance Council. That could show that private industry needs to tweak its models - and rates - upward, he said.

But if people end up disagreeing with the output of the public model, finding out why may not be quite as easy as some expected.

The software "source code" that makes the model run won't be "Open Source" or publicly posted on the Internet, Hamid said, because
state officials are copyrighting it.

Dave Foy, chief of staff for the Office of Insurance Regulation, said in an e-mail that it is just protecting the state's financial investment and preventing private modeling companies, insurers or third parties from copying the work. Public records laws apply to the model, he said, and people could review the source code on-site.

Pielke said that may not satisfy climate scientists. "Today, with the Internet, anyone refusing to put a digital copy of a 'public' model online for review is hiding something or purposely making things difficult. There really is no excuse," he said.

The independent commission is expected to have a final discussion and vote on the public model June 21 to 22.