

**AMERICAN METEOROLOGICAL SOCIETY
NEWS RELEASE**

Headquarters
45 Beacon Street
Boston, MA 02108-3693

1120 G Street, N.W., Suite 800
Washington, DC 20005-6115

Contact(s):

Stephanie Kenitzer, AMS
(425) 432-2192
Kenitzer@dc.ametsoc.org



FOR IMMEDIATE RELEASE
20 October 2004

**Better Analyses of Wind, Damage Models Would Help Insurers Anticipate
Hurricane Costs, UCF Professor, Georgia Colleague Say**

ORLANDO, Oct. 19, 2004 – Insurance companies could better anticipate their annual costs in hurricane claims if they used more accurate models of storm winds and the severity of damage they will likely cause, a University of Central Florida professor and his Georgia colleague concluded.

UCF statistics professor Mark Johnson and Chuck Watson, founder of Kinetic Analysis Corp. of Savannah, Ga., analyzed 324 combinations of public and private models that insurance companies use to predict wind speeds and damage and estimate storm losses. In an article written for the November issue of the Bulletin of the American Meteorological Society, Johnson and Watson concluded that the models produce vastly different results, leaving a lot of uncertainty in how much risk insurance companies face each year and how much they should charge policyholders.

The models reviewed by Johnson and Watson do not forecast the paths of particular storms. They simulate the damage caused by storms based on storm tracks, which usually are provided by the National Hurricane Center. To develop projections for insurance companies' losses, the models consider data such as historical storm tracks, the percentages of concrete, wood-frame and mobile homes in an area and projected wind speeds.

The researchers suggested that creating a centralized database of wind speeds during storms and requiring insurance companies to divulge more information about the reports of damage they receive and the claims they pay would help to make the models more accurate. The insurance company models also did not consider some factors, such as soil moisture and the possibility of leftover debris from prior hurricanes, which can dramatically influence how much damage storms inflict.

Before Hurricane Andrew struck South Florida in 1992, insurance companies generally relied on analyses of their losses during prior years to set premiums and deductibles. The catastrophic damage caused by Hurricane Andrew prompted insurance companies to base decisions on models that predict wind speed, how

winds may be slowed by structures or different terrains and the estimated damage those winds would cause.

Many of the models used by companies are private and therefore could not be directly reviewed by Johnson and Watson. However, the publicly available models and data provided by private modelers to a Florida commission showed dramatic differences in estimates of wind speeds and damage, especially for inland areas.

"This range in models' results presents a major problem for regulators, government officials and consumers, as the choice of model could result in premiums differing by several hundred dollars a year for a typical home," the researchers wrote in the Bulletin of the American Meteorological Society article.

In response to residents' concerns about hurricane premiums and deductibles, Florida legislators likely will consider changes to some of the state's policies regarding hurricane insurance. Legislators do not set insurance rates, but they can pass laws regulating them.

Johnson and Watson do not recommend any specific legislation regarding how states regulate insurance rates. However, they said they can help legislators assess how changes to premium or deductible structures would affect homeowners and insurance companies.

"Those tests are essential when you're dealing with insurance, because you're experimenting with people's lives and the economic livelihood of insurance companies," Watson said.

The two researchers run a Web site, <http://hurricane.methaz.org>, that includes storm tracks and projected damage estimates for approaching storms. The damage estimates are based on a more comprehensive database of properties than what insurance company models typically use.

Johnson and Watson are consultants to the Florida Commission on Hurricane Loss Projection Methodology, which reviews and accepts public and private hurricane models. The analyses that will be reported in the Bulletin of the American Meteorological Society were funded by the states of North Carolina and Florida, the Organization of American States and the U.S. Agency for International Development. Data from Florida was used in that study, and the general conclusions are applicable throughout the United States.

The AMS, founded in 1919, promotes the development and dissemination of information on atmospheric, oceanic, and hydrologic sciences through scientific journals, conferences, and public education programs across the country. Additional information on the AMS is available on the Internet at <http://www.ametsoc.org>

Contacts:

Mark Johnson, 407-823-2695 work, 954-401-6249 cell, mejohanson@mail.ucf.edu

Chuck Watson, 912-234-9048 work, 912-398-9753 cell, ccwatson@mail.methaz.net

Stephanie Kenitzer, American Meteorological Society, 425-432-2192, kenitzer@dc.ametsoc.org

Note to reporters:

A copy of the full Bulletin of the American Meteorological Society article can be obtained by contacting university writer Chad Binette at 407-823-6312 or cbinette@mail.ucf.edu.

###