FEATURE - Insurers go High-Tech to Track Extreme Weather

LONDON - Hurricane Wilma, which roared through the Caribbean this week and appeared headed for Florida, is the season's record-tying 21st storm -- and another reason for insurers to revisit weather forecasts.

Several deadly hurricanes -- including Katrina which killed more than 1,200 in the United States and caused more than $30 billion of insured damages -- have sent insurance companies rushing to weather modellers' predictions and given the forecasting industry a new public profile.

Scientists say it is difficult to tell if global warming caused some of the more powerful recent hurricanes, but they forecast more unpredictable weather as the world gets hotter. "What's driving insurers' interest is whether we're looking at a more active phase lasting several years," said Jayanta Guin, Vice President of Research Modelling at Boston-based AIR Worldwide Corporation, a risk modelling and technology firm.

AIR, which uses analytical tools to measure probability of natural and man-made catastrophes, says it has doubled in size in the past four years on the back of growing demand from mortgage lenders and government agencies, as well as insurers. Reinsurers, who ultimately pick up the damage bill for many extreme event payouts and help to cover insurers' losses, are using ever more complex weather models to keep up with the demands of the insurance industry, said David Bresch, Head of Atmospheric Perils at Swiss Re.

Swiss Re's natural catastrophe unit can simulate up to 500,000 individual Atlantic storm events for the firm's 200 underwriters, who are increasingly hungry for data. "A couple of years ago you reported insurance value concentrations by aggregate, for example at county level in Florida. Now you report by zip (post) code, for example to capture proximity to the coast," said Bresch.

COUNTING THE COST OF CATASTROPHE

Swiss Re is the world's second biggest reinsurer and uses weather statistics back to 1870 to simulate extreme events and track trends in hurricanes and other major financial loss events such as Japanese cyclones and European winter storms. "Natural catastrophes are still considered to be the biggest single-event threats (to Swiss Re), greater than a global stockmarket or real estate crash," said Bresch. Swiss Re estimates a once-in-every-50-year European winter storm would cost it 1.5 billion Swiss Francs ($1.16 billion), compared to a loss of 1 billion Swiss Francs if shares dropped 10 percent worldwide in a markets crash.

"Increasingly our underwriters need not just business acumen but analytical ability to understand the (weather modelling) data," Bresch said.
In 2004, four hurricanes hit the United States within weeks of each other, causing the costliest hurricane season on record with damage estimated at $56 billion, the Association of British Insurers (ABI) said.

AIR Worldwide describes Katrina as a 1-in-20-years financial loss event, but says that a couple of bad years still only has a minor impact on the probability of another bad year next year.

Hurricanes are not the only extreme weather problem. Portugal and Spain experienced their worst recorded droughts this summer. Europe had its hottest summer in more than 500 years in 2003 and 2004 saw Japan's worst cyclone season in over 100 years, according to the ABI.

The science of weather forecasting has not just drawn specialist interest. The public has also rediscovered an industry once followed most closely by fishermen and sailors. "We are part of news now, which we weren't in the past," said Peter Gibbs, a forecaster at the BBC Weather Centre in London. "We're getting a lot more links into programmes looking at weather, that's changed in the past few years, partly because we're seeing more extreme weather events."

And the public is lapping up weather forecasts as these become available through ever-expanding outlets.

"The demand is absolutely insatiable," said Wayne Elliott, a spokesman for the Met Office, Britain's national weather service, which provides forecasts for media and industry.

"Hurricane Wilma is generating enormous interest."

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