

CHOICES PROLIFERATE

Tech Tools Help Insurers Predict Disaster Losses

Both technological innovation as well as increased data fuel evolution of models

BY STEVE TUCKEY

JUST AS THE SEPT. 11, 2001 terrorist attacks against the World Trade Center and the Pentagon was a wakeup call for insurers about the need to plan for the relatively new exposures posed by man-made catastrophes, the record 2005 natural disaster losses reminded these same carriers that not only have the old risks not disappeared, but they can still pack a wallop.

In response, experts in catastrophe modeling say the technology underwriters use to prepare for the worst is constantly evolving—thanks to new scientific developments and also new experiences to feed the models. The more data, the better.

Record hurricane losses and the looming threat of terrorism has forced insurers to stay on top of any risk concentration

“After natural hazards, underwriters tighten up their criteria,” he said. “Underwriters have all these rules the agents and carriers are supposed to follow, but they get more lackadaisical as time goes on, and after major disasters there are basically no exceptions made.”

“RiskMeter Online”—the main product offering of CDS—provides flood determinations for any U.S. address, he explained. In addition, underwriters can determine other factors, such as distance to the coast, proximity to brush and earthquake information.

Before the flood feature was introduced, said Mr. Munson, if the address entered could not be accurately pinpointed, no flood zone information was returned. With the new feature, users will be able to get the correct flood zone for any address—even new streets and rural addresses.

“We try to point out what risk companies have prior to binding the business, whereas modeling companies will tend to tell you this is what you have now and what your risks are,” Mr. Munson said.

While most jobs are on a case-by-case basis, an event like the record-setting Hurricane Katrina will prompt some carriers to score their entire book, Mr. Munson noted. “What happens is that after a client gets hit, they start looking for a better way of doing things in managing risk,” he said.

Reinsurance brokers can also act as warning agents, he added. “We had one such broker who told his client that after an analysis they found they had twice as many

policies within a half-mile of the shore as they thought,” he said. Thus, a primary carrier might be socked with higher rates from a reinsurer, which does not face the regulatory constraints that his client would.

The insurance realm relies on federal mapping for flood zone determination, “so pretty much all they have to do is get the flood zone right,” Mr. Munson noted.

The Federal Emergency Management Agency is in the midst of a five-year project to digitize flood zone mapping, a move that “will speed up processing and analysis once it is complete,” he reported.

According to Mr. Munson, the estimated 40-to-50 percent of Gulf Coast homeowners who suffered major flood losses without insurance has awakened the public to the fact that Mother Nature has no respect for arbitrary zonings. This becomes even more critical for carriers writing excess flood policies, “because then it is the company’s money,” he added.

RISK MANAGEMENT SOLUTIONS

Newark, N.J.-based Risk Management Solutions Inc. specializes in catastrophe risk models that include two different applications.

One, called “RiskLink,” is targeted for senior management and looks at the entire risk portfolio. The other, “RiskBrowser,” is an Internet-based application that gets deployed to hundreds of underwriters and is aimed at analyzing specific accounts.

Models evolve over time with development of new methodologies that bring

more sophisticated analyses of earthquakes and hurricanes, according to Paul VanderMarck, RMS executive vice president.

Event experience itself—in which claims undergo a rigid scrutiny for more than a year after the fact to determine what new patterns are developing and how risk could be better managed—also plays a key role, he noted.

The company released Version 5.1 of its RiskLink and RiskBrowser programs last October, with the updated versions adding new capabilities for calculating the risk of Japanese earthquakes.

Version 5.1 also features updates to U.S. models for workers' compensation and terrorism risk, the company noted. Workers' comp cost severities have been updated to support loss estimation of exposure through 2006.

In addition, target databases and "scenario footprints" in RiskLink and RiskBrowser have been updated to reflect the latest analysis of U.S. terrorism risk, consistent with version 2.4 of the RMS "U.S. Probabilistic Terrorism Model."

"We have gathered something north of \$13 billion in claims just from 2004 in which we are looking at street addresses, individual buildings, and construction type and occupancy type and how they all behaved," Mr. VanderMarck explained.

More immediate data is calibrated into the models from a climatology perspective,

as insurers want to know if the greater storm activity of the past two years is an anomaly or the shape of things to come for the next decade or so, he added.

"We have been in dialogue with the [insurer] ratings agencies over the past couple of years, because they want to understand how the models are going to change for their companies' risks and the rating process," Mr. VanderMarck said.

"The process is in many ways still in its early days, but all of our clients are talking to the rating agencies they work with to show how the risk is changing and what they are doing about it."

AIR WORLDWIDE CORP.

Frank Fischer, manager of client relations for Boston-based AIR Worldwide Corp., said his company offers clients a variety of risk management tools that allow both a global and individual view of the risks faced by a property or region.

"CATStation"—AIR's Web-based catastrophe risk management system—incorporates three progressively rigorous modules: exposure concentration analysis, hazard analysis and loss analysis. CATStation is designed for underwriters of property, workers' comp and other lines seeking catastrophe information for real-time decisions and portfolio management.

Record insured catastrophe losses in 2005 have prompted many primary companies to take up the responsibility of gauging their risk on their own rather

than relying on reinsurance brokers and carriers, according to Mr. Fisher.

One way tools are evolving is the creation of new occupancy categories, such as light metal frame structures (which include gas stations and golf courses). The company hopes such granularity can provide a more accurate risk picture, he said.

EQECAT INC.

Last summer, Oakland, Calif.-based Eqecat Inc. released a new generation of "WORLDCAEnterprise," version 3.7, which includes model updates for U.S. Quake, U.S. Hurricane and Belgium Quake modeling technology.

In addition to model updates, Eqecat's new version of WORLDCAEnterprise offers a variety of enhancements to software functionality with new features and reports, all easy-to-use by clients, the company said.

Eqecat said its upgraded catastrophe modeling software platform "incorporates the latest scientific and engineering research, as well as real-world experience, as reflected in insurance claims data from recent global perils."

One of the primary new features of the updated version is its automation functionality, enabled by EXtensible Markup Language (XML) technology.

"This access to accuracy and speed enables clients to effectively drive revenues, reduce costs in various operational areas, provide faster access, and ensure timely and collaborative use of information," according to Eqecat. ■

Reinsurance brokers can also act as warning agents for primary carriers

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