

Storm Clouds Gather Over Florida

Timothy Gardner, Managing Director and head of Guy Carpenter's Property Specialty Practice, discusses the likely impact of Hurricanes Charley and Frances on the reinsurance market and the current situation regarding Hurricane Ivan.



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expanding the hourly limitation for tropical cyclones, a coverage clarification that Guy Carpenter has been actively managing for its clients since the January 2004 renewal season.

Estimated industry insured losses for Frances published by the three major modeling firms are: AIR Worldwide, \$5-10 billion; EQECAT, \$2-5 billion; and Risk Management Solutions (RMS), \$5-10 billion. These loss estimates include damage caused by wind, demand surge and storm surge. However the flood loss, which could be substantial, is not a modeled coverage. In Florida, some

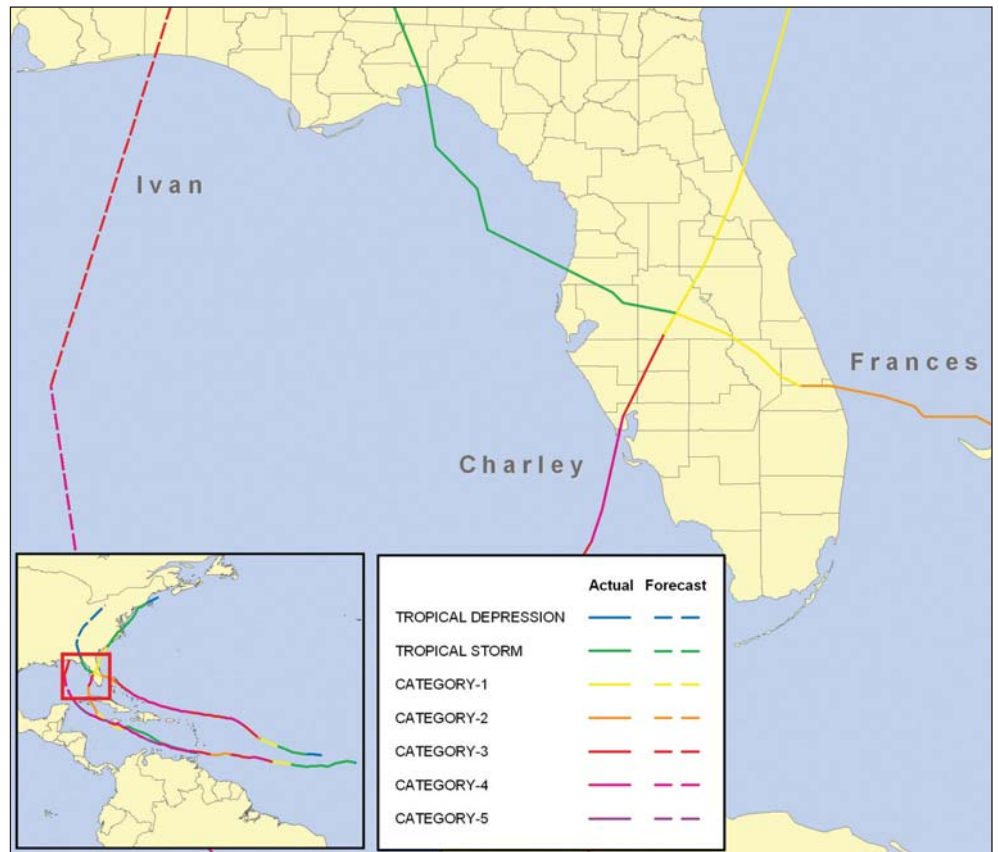
commercial lines policies either have flood endorsed or included within package policies while, on the personal lines front, flood is covered under a separate policy offered by the government and, therefore, would not be included in these loss estimates.

It's too early to tell how wind and rain in Georgia, the Carolinas and up into New England could impact these loss estimates. Regardless, with Hurricane Frances following Hurricane Charley so closely in time, demand surge and the resulting price increases in raw materials and labour will likely increase losses from both

Forecasters have been calling for a higher than average Atlantic Hurricane season in 2004.

Experience to date indicates that they are already correct with Hurricane Ivan, potentially the most damaging storm of the early season, still en route. Hurricane Frances first made its US landfall on September 5th on Florida's east coast, just 23 days after Hurricane Charley hit the state's west coast.

While Hurricane Frances lost strength before it made landfall in Florida, it was a particularly large and slow moving storm, which likely increased the resulting damage. Frances made landfall with sustained winds of approximately 105 miles per hour and dropped more than 330 millimetres (13 inches) of rain along Florida's east-central coast, causing extensive flooding as it moved inland toward Tampa. As Frances moved north through the eastern US, it caused damaging wind and rain up the east coast through New England. Frances' duration highlights the importance of



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hurricanes. If Ivan does make landfall in or near Florida, demand for labour and supplies could increase even further.

We do not currently anticipate that the recent Florida activity – excluding any potential losses from Hurricane Ivan – will have a meaningful impact on the 2005 US property reinsurance market. The reinsurance prices for the Florida specific companies that have been impacted at least once – and in some cases twice – may well increase at renewal. However, the rest of the industry should continue to work within a flat to slightly softening pricing environment.

It is important to note that despite the significant insurance loss estimates, the reinsurance component is still estimated to be relatively small for reasons specific to the Florida market including:

- There are a few very large Florida market players that do not buy meaningful external reinsurance. According to Fitch Ratings, Citizens, Allstate and State Farm alone are estimated to represent more than 40% of the homeowner's market based on estimates of direct written homeowners premium.
- Property catastrophe program retentions for the national writers have grown over the last several years to the point where both Charley and Frances were largely net retained events. It is still early to tell, but the current Hurricane activity could alter how carriers ultimately decide to manage their catastrophe accumulations.
- The Florida Hurricane Catastrophe Fund (FHCF) is the largest reinsurer in the state. Even though the current estimated loss amounts for both storms appear to fall below the industry attachment for the FHCF, the Fund will draw some potential loss out of the reinsurance sector.

Losses generated by Hurricane Frances subject to the FHCF

Guy Carpenter Sponsors Development of Belgium Flood Model

Over the past decade, an unusually high number of severe flood events across Europe have caused substantial losses, raising concern among insurers and reinsurers alike. Vulnerability to flood on European floodplains will likely continue to rise in tandem with increases in property values and the growing pressure to develop in flood plain areas. As a result, there is a need for greater understanding of flood hazard by risk carriers, including tools to enable quantification and management of risk.

To address this urgent need, Guy Carpenter has sponsored the development of a Belgium flood model by the modeling firm Risk Management Solutions (RMS). This model represents the first step made by RMS in the modeling of Continental European flood exposure and will be expanded to other Continental European countries in future years.

The model is fully probabilistic and its database of stochastic events represents a broad spectrum of possible events that may affect exposures in Belgium. This database is based on hydrological data as well as research into the causes of historical flood events. Flow data from stations with daily flow and effective rainfall were used to develop the stochastic event set for the model.

Damage functions for buildings/structures have been developed using RMS' extensive experience with vulnerability modeling, results from RMS flood surveys and detailed information on historical data from the 'Fonds des Calamités' (Natural Disaster Fund). During the development phase, a number of analyses have been undertaken for Belgian insurance companies to obtain feedback about model results.

Input data includes geocoded, address level information along with aggregate exposures by postal code. The model covers on-floodplain flood depth for major rivers. Outside the major floodplains, flooding due to the rapid response of minor rivers, sheetflow, drainage and intense rainfall are also modeled. Defence protection against flood of different return periods is modelled probabilistically.

The RMS Belgium flood model uses a well respected approach to flood modelling and shares a consistent methodology with all other RMS catastrophe models. The model may be used for risk analysis and pricing and management of aggregates as well as for reinsurance.

This Belgium Flood model will be part of the release version 4.5 of RMS model Risklink® in October 2004. To accompany this launch, Guy Carpenter has organised a market presentation of the model on 14 October 2004 in Brussels.

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currently appear to be below the industry retention of \$4.5 billion. As coverage is triggered on an individual company basis, it is likely that at least a few companies with localised concentrations will trigger their FHCF coverage and make recoveries, but at this point those look to be very small. In addition, current estimates from Charley are still within the \$1 billion to \$2 billion range. If losses to the FHCF from Charley and Frances remain within \$2 billion, then the estimated 2004 Fund Balance will be \$4.15 billion and the estimated claims-paying capacity will be \$13 billion. Guy Carpenter estimates that the additional total insured loss needed to trigger bonding or exhaust the FHCF to be in the range of \$14

billion and \$29 billion, respectively.

Hurricane Ivan has already devastated the island of Grenada and has caused extensive damage in Jamaica and Grand Cayman. While it is difficult to predict Ivan's path, it currently appears that Ivan could make landfall in the eastern Gulf of Mexico, somewhere between Louisiana and the Florida panhandle. With maximum sustained winds currently near 160 mph extending up to 105 miles and tropical storm force winds extending outward up to 200 miles, the Florida coast may be hit for the third time in roughly a month's time. Weary Florida residents, along with the insurance industry, are bracing themselves for what may come.