BOSTON--(BUSINESS WIRE)--Karen Clark & Company (KCC), independent experts in catastrophe risk, catastrophe models and catastrophe risk management, today issued a report, in conjunction with the 75th anniversary of the Great New England Hurricane, examining the impact of a comparable storm making landfall today. The report also explores what the industry losses would be from a 100-year Characteristic Event (CE) for the Northeast. The full report is available at www.karenclarkandco.com

.

“Companies want more consistent risk metrics, full transparency on the loss calculations and key drivers, and flexibility to customize assumptions to better reflect their specific books of business. The CE approach delivers the solution to these risk management challenges.”

Considered by many to be the greatest single event in the meteorological history of the region, the 1938 hurricane made landfall near Bellport, Long Island on September 21. Believed to be a Category 3 on today’s Saffir-Simpson scale with sustained winds of 120 mph, the storm caused unprecedented destruction. Significant wind damages were experienced throughout the region, and many coastal towns were completely wiped out by storm surge heights exceeding 10 feet in many areas. Because forecasters believed hurricanes never hit the Northeast, no warnings were issued. As a result, nearly 700 people were killed and an equal number injured. In addition, thousands of homes and other buildings were destroyed, with 63,000 left homeless, and 3,000 ships sunk or damaged. The hurricane felled millions of trees, in some locations destroying entire forests, downing power lines and causing outages over most of the region.

The KCC report estimates that were the 1938 storm to occur today insured losses would exceed $35 billion and that a similar storm, but tracking further to the west, would result in insured losses exceeding $100 billion.

“In the Northeast, it’s not a question of the intensity but of the storm track,” said Karen Clark, President and CEO, KCC. “It will only take a Category 3 hurricane with the right track to cause industry losses far exceeding anything we’ve seen to date. This type of storm could also result in losses well above many insurers’ PMLs.”

The 100-Year Event

The KCC report notes that according to historical records, several major hurricanes impacted the Northeast before 1900. Given this history, it's reasonable to assume the 1938 storm is a 100-year type event for the region and has an estimated one percent annual probability of occurring.

Such a storm could make landfall anywhere along the Long Island, Rhode Island or Massachusetts coastlines. The different landfall points would result in dramatically different industry losses and damages because hurricanes are "right handed" in the northern hemisphere, with the strongest winds occurring from a few miles to 50 miles to the right of the storm center. Hurricanes that make landfall further to the west will cause greater damage because more of the right, or east, side of the storm will be over highly populated areas.

To account for the risk along the entire coastline, KCC developed the Characteristic Event (CE) methodology of "floating" the 100-year storms along the coast and estimating the resulting losses. Spaced at 10-mile increments, there are 22 landfall points from western Long Island to Nantucket. To estimate the losses for the floated CEs, KCC utilized a detailed proprietary database of property values. The CE methodology shows that 100-year storms coming ashore along the western end of Long Island would result in insured losses exceeding $100 billion.

"Historically, no major hurricane has tracked this far to the west, but weaker storms have, such as Irene in 1999," said Ms. Clark. "Tools that rely on the historical record alone can significantly underestimate the chances of this type of an event and potential Northeast hurricane losses. Insurers shouldn't assume, as the forecasters did in 1938, that a major storm will not follow a particular path simply because there is no record of such an occurrence."

Managing Hurricane Risk Using CEs

For the past 20 years, insurers have relied on probable maximum losses (PMLs) derived from catastrophe models to quantify and manage hurricane risk. The PML approach can give a false sense of security by masking exposure concentrations that can lead to solvency-impairing events.

KCC developed the CE methodology to help address the problems and risk management challenges inherent in PMLs. While providing probability information, the CE method also clearly identifies exposure concentrations and “hot spots” and provides transparent and intuitive information for decision makers, including boards and CEOs. The CEs remain constant year to year, providing consistent metrics for measuring and monitoring risk over time. In addition, CEs are operational risk metrics that can be drilled down to individual policies for marginal impact analyses, pricing and portfolio management.

The CE approach can be applied to any peril in any region of the world. KCC is collaborating with several scientific organizations to create CEs for European windstorms, earthquakes, floods and other hazards.

“PMLs provide valuable information on potential losses, but they are less effective in helping companies understand and manage risk,” said Ms. Clark. “Companies want more consistent risk metrics, full transparency on the loss calculations and key drivers, and flexibility to customize assumptions to better reflect their specific books of business. The CE approach delivers the solution to these risk management challenges.”

About Karen Clark & Company Karen Clark & Company provides software products and consulting services that help insurance companies better understand and manage catastrophe risk. Karen Clark & Company professionals are independent experts in catastrophe risk, catastrophe models, and catastrophe risk management who work with insurance company executives to enhance business strategies, competitive advantage, and financial results. For more information, please visit www.karenclarkandco.com

.