

News Release

Contacts:

Missy DeAngelis

Guy Carpenter

1.917.937.3118

missy.deangelis@guycarp.com

Jennifer Ainslie

Guy Carpenter

44.207.357.2058

jennifer.ainslie@guycarp.com

Suzanne Hirst

Allen & Clapham

44.7988.140357

suzanne.hirst@allenandclapham.com

Guy Carpenter launches probabilistic European hail model

G-CAT[®] Hail Model employs LINET - one of the world's most advanced lightning detection systems

London, September 4, 2014 - Guy Carpenter & Company, LLC, the leading global risk and reinsurance specialist and wholly owned subsidiary of Marsh & McLennan Companies (NYSE: MMC), today launched its new leading-edge probabilistic hail model for Europe. The G-CAT[®] Hail Model features a unique approach to producing historic hail tracks using a lightning detection system developed for Guy Carpenter by atmospheric research firm nowcast GmbH.

The hazard module of the new hail model is based on the historic hail event set developed using nowcast GmbH's patented global lightning detection system, LINET. The accuracy of the algorithm that uses certain parameters of lightning data to reconstruct hail occurrence in a storm track has been verified using policy claims from past events, hail reports from the European Severe Weather Database and radar data from the German Space Agency, DLR. The hazard module's stochastic event set has been developed by analysis of the physical attributes of the historic hail events using a proprietary statistical model to generate events that capture the erratic nature of severe convective storms.

Commenting on the use of lightning data, Mark Weatherhead, Head of Catastrophe Model Development at Guy Carpenter, said: "There is no direct way of measuring hail intensity over broad scales and so the challenge is to find a good proxy measure of hail occurrence that can be used on a consistent basis over the entire area of interest. To this end, we have formed a partnership with nowcast GmbH who are using leading-edge technology to track the occurrence of those lightning parameters that best reconstruct the possible occurrence of hail in a storm track. We are very excited to be part of this collaboration, especially as it is producing very interesting data to use as a basis for the hazard component of our model."

The launch of the model comes at a time when recent insured losses from hail events in Europe have reached record levels. Max Strasser, Project Leader for the G-CAT Hail Model, said: "While much of the focus is on the larger perils such as windstorms and floods, hail is a major European peril responsible for high attritional losses in many countries. In a bad year hail can be *the* largest source of loss in some places. Hailstorm Andreas which occurred in Germany in July 2013 generated an industry loss in excess of USD3 billion, but we don't know if this is at the extreme tail-end of the range or something we could expect on a more regular basis. Experience-based approaches can only take us so far, and so we have invested in this new fully probabilistic model to

Guy Carpenter launches probabilistic European hail model

G-CAT® Hail Model employs LINET - one of the world's most advanced lightning detection systems
September 4, 2014

allow us to properly explore the possibilities and provide a more comprehensive view for our clients.”

Massimo Reina, CEO of Continental Europe and MENA, added: “Understandably our clients are very interested in managing the hail peril and so our new model allows them to take a view on hail across their entire European portfolio.”

The European hail model will serve as a key tool in the identification of accumulations of insured risks exposed to hail, from the production of reliable estimates of hail losses to property and motor lines at a country level, to an entire insured portfolio across the Continental European region. The model is currently available for Austria, Germany, Italy, Poland and Slovenia, and will be extended to a number of other European territories in 2015.

TAGS/KEYWORDS

Guy Carpenter, European hail model, nowcast GmbH, DLR, Reina, Weatherhead, Strasser

About Guy Carpenter

Guy Carpenter & Company, LLC is a global leader in providing risk and reinsurance intermediary services. With over 50 offices worldwide, Guy Carpenter creates and executes reinsurance solutions and delivers capital market solutions* for clients across the globe. The firm's full breadth of services includes line-of-business expertise in agriculture; aviation; casualty clash; construction and engineering; cyber solutions; excess and umbrella; excess and surplus lines; healthcare & life; marine and energy; mutual insurance companies; political risk and trade credit; professional liability; property; retrocessional reinsurance; surety; terrorism and workers compensation. GC Fac® is Guy Carpenter's dedicated global facultative reinsurance unit that provides placement strategies, timely market access and centralized management of facultative reinsurance solutions. In addition, GC Analytics®** utilizes industry-leading quantitative skills and modeling tools that optimize the reinsurance decision-making process and help make the firm's clients more successful. For more information, visit www.guycarp.com and follow Guy Carpenter on Twitter @GuyCarpenter.

Guy Carpenter is a wholly owned subsidiary of **Marsh & McLennan Companies** (NYSE: MMC), a global professional services firm offering clients advice and solutions in the areas of risk, strategy, and human capital. **Marsh** is a global leader in insurance broking and risk management; **Mercer** is a global leader in talent, health, retirement, and investment consulting; and **Oliver Wyman** is a global leader in management consulting. With annual revenue exceeding \$12 billion, Marsh & McLennan Companies' 55,000 colleagues worldwide provide analysis, advice, and transactional capabilities to clients in more than 130 countries. The Company prides itself on being a responsible corporate citizen and making a positive impact in the communities in which it operates. Visit www.mmc.com for more information.

*Securities or investments, as applicable, are offered in the United States through GC Securities, a division of MMC Securities Corp., a US registered broker-dealer and member FINRA/NFA/SIPC. Main Office: 1166 Avenue of the Americas, New York, NY 10036. Phone: (212) 345-5000. Securities or investments, as applicable, are offered in the European Union by GC Securities, a division of MMC Securities (Europe) Ltd. (MMCSEL), which is authorized and regulated by the Financial Conduct Authority, main office 25 The North Colonnade, Canary Wharf, London E14 5HS. Reinsurance products are placed through qualified affiliates of Guy Carpenter & Company, LLC. MMC Securities Corp., MMC Securities (Europe) Ltd. and Guy Carpenter & Company, LLC are affiliates owned by Marsh & McLennan Companies. This communication is not intended as an offer to sell or a solicitation of any offer to buy any security, financial instrument, reinsurance or insurance product. **GC Analytics is a registered mark with the U.S. Patent and Trademark Office.

###