High-Resolution (Hi-Res) Hurricane Risk Magnitude Index (HuRMI)

Guy Carpenter's Tropical Cyclone Risk Score combines several complex datasets using a transparent methodology, providing clients with a high-resolution, model-agnostic view of wind risk from tropical cyclones.

WHAT MAKES Hi-Res HuRMI UNIQUE:

INNOVATIVE AND UP-TO-DATE

Minimizes Observational Bias

Guy Carpenter's team of meteorologists derived the index using innovative analytics, thousands of years of tropical cyclone tracks from a peer-reviewed dataset and the latest scientific publications. The result is an industry-leading product enabling a robust view of hurricane risk.

- Underwriting Support
- Portfolio Management

HOLISTIC VIEW OF WIND HAZARD

Frequency and Severity

By leveraging the entire tropical cyclone life cycle–along with landfall severity and its relationship to loss–the index offers a comprehensive view of the underlying hazard landscape and outputs data in a straightforward and transparent manner.

- Independent View from Catastrophe Models

GRANULAR AND EXTENSIVE DATA

5-Kilometer Resolution

Given the localized nature and rarity of major hurricanes, physically-plausible, but not-yet-observed, tracks are crucial to understanding risk. Hi-Res HuRMI provides granular data across the majority of North America–even if the region has rarely experienced hurricanes.

- Easily Accessible Technology

High-Resolution Hurricane Risk Magnitude Index: Highlights

More than 1 Million Storm Tracks

Hi-Res HuRMI was derived using 120,000 years of synthetic data based on internationally-recognized academic research. These physically-based tracks provide a wealth of data in understanding local risk over a massive domain. The tracks are evaluated and tested to ensure they accurately represent observed weather activity.

Supplementary Domains

Guy Carpenter has developed hurricane wind risk scores for 7 different sub-regions, in addition to the basin-wide risk scores. The sub-regions allow clients to focus on the relative risks in their sphere of interest and confidently manage portfolios in specific geographies.

Easy to Understand

The index is classified into 8 different risk categories, ranging from Very Low (lowest risk) to Extreme (highest risk). These risk classifications are assigned using a percentile binning system that separates risk classes appropriately.

Regular Updates

The index optimizes Guy Carpenter's OmniCAT Risk Score framework for regular and reliable updates. As more robust track datasets are created, the product will update with the most recent storm datasets available. Additionally, additional climate change views will be added to the product as the science evolves.

Easily Accessible through any Guy Carpenter Product Suite

By logging into GC AdvantagePoint®, GC Mosaic® or GC Edge, clients can easily access Hi-Res HuRMI for any location affected by North Atlantic Basin storms. With these platforms, users have the capacity to overlay a portfolio, filter data dynamically and conduct in-depth analyses.

Climate Change Projections

Guy Carpenter has leveraged academic research to incorporate projected views of hurricane frequency and severity over the coming decades. This data augments Hi-Res HurRMI by providing insight to carriers if there is a forecasted change in hurricane wind risk due to climate change.

API Compatibility

Through Guy Carpenter's suite of RESTful API services, data can be directly integrated at the point-of-sale, providing hazard scores and accumulation metrics.

Contact

If you are interested in learning more about Hi-Res HuRMI or would like to organize a live demonstration of the product, please contact any of the following specialists:

Kieran Bhatia

Vice President, Climate Change Perils Advisory

Kieran.Bhatia@guycarp.com

+1 215 864 3611

Kimberly Roberts

Senior Vice President, Catastrophe Risk Management Specialist

Kimberly.Roberts@guycarp.com

+1 215 300 7345

James Waller

Senior Vice President

Research Meteorologist

James.Waller@guycarp.com

+1 215 964 5879