

GCAT Japan Typhoon Model

The Japan Typhoon Model is the latest addition to Guy Carpenter's robust suite of risk management tools for Asia. Our models and advisory teams help clients throughout the region better understand and manage the risks they face.

What are the benefits of Guy Carpenter's Japan Probabilistic Typhoon model?



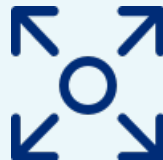
STATE-OF-THE-ART MODELLING

Models the impact of tropical cyclone events affecting Japan.

Considers inter-annual and decennial climate variability, including El Niño-Southern Oscillation (ENSO) and Pacific Decadal Oscillation (PDO).

Independently peer-reviewed by academic experts.

- Local Conditions
- Countrywide Coverage

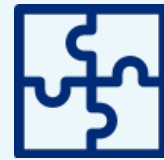


BROAD RANGE OF APPLICATIONS

Can be used for underwriting, risk management, and regulatory requirements.

Accumulation, probable maximum losses (PMLs) and scenario modelling to support management decisions, including climate change assessment.

- Risk Management
- Climate Change



INTEGRATED REGIONAL VIEW

Part of Guy Carpenter's suite of Asia Pacific typhoon models. Allows loss modelling for events that hit multiple countries.

Comprehensive coverage of all countries in Asia, with the best of regional and local data support.

- Complete Coverage of Asia
- Local Knowledge and Data

Overview of the Japan Typhoon Model

The GCAT Japan Typhoon model is the first element in a new suite of Asia-Pacific typhoon models in development at Guy Carpenter. The new models include a unified Northwest Pacific Basin event set allowing for assessment of tropical cyclone risk across the region, including correlation and relativities between countries. The model can provide views on climate change impact to portfolio losses in addition to baseline conditions.

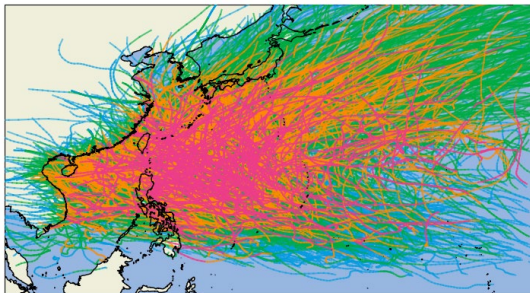


Storm Tracks

The Tropical Cyclone Event Set contains 50,000 years of simulated tracks using a combination of statistical models. A clear and transparent approach provides a range of modelled outcomes through alternative hazard parameters.

Developed in conjunction with academic experts, the track set accounts for climate change and the effects of climate variability (ENSO/PDO).

Validated for the entire North West Pacific.

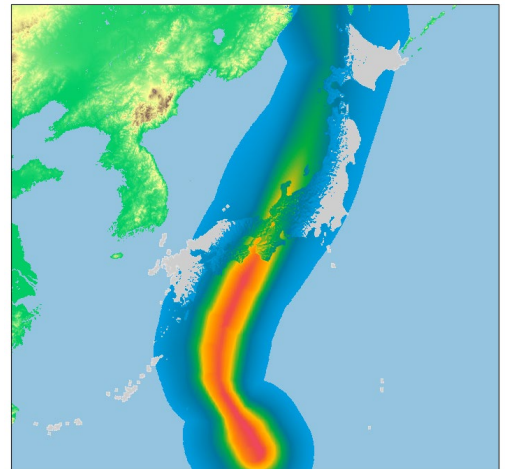


Wind Fields

State-of-the-art wind field modelling, developed in-house, incorporates the latest data and scientific findings.

Wind fields developed for both on-shore and off-shore conditions.

Methodology peer-reviewed by well recognised academic experts.



Vulnerability Module

The Japan Typhoon model supports multiple lines of business, including motor, residential, commercial, industrial, agricultural and municipality. Modelled wind speed dependent vulnerabilities are calibrated on collections of local data specific for Japan.

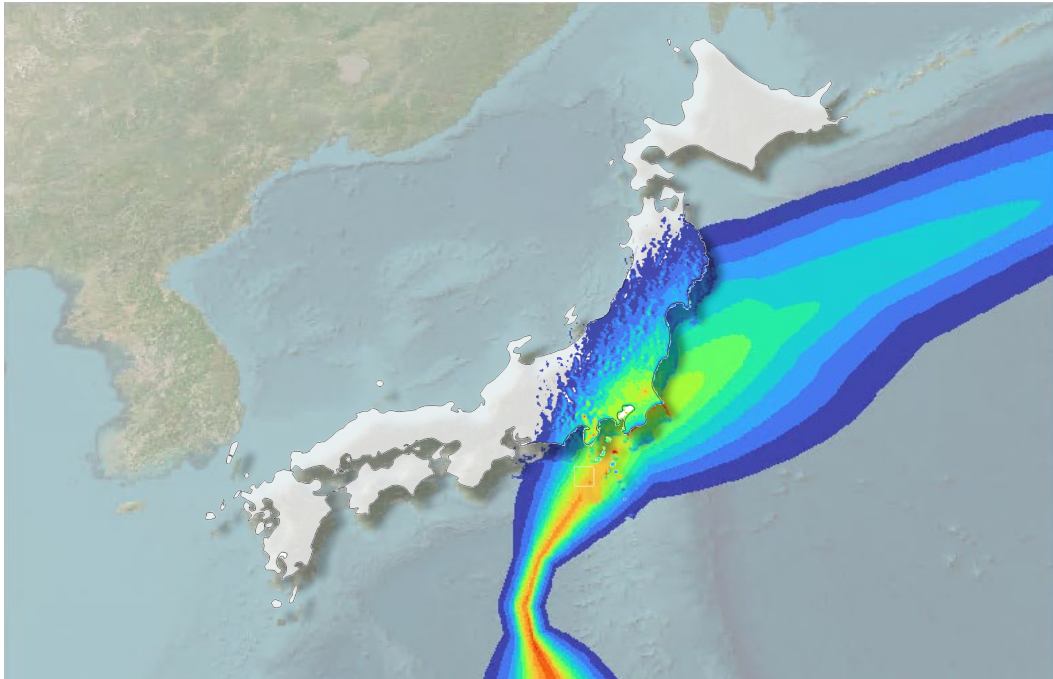


Built Environment

Leveraging land use and land cover data, global human settlement layers, population and Guy Carpenter's proprietary Industrial Park database to create a detailed, built-environment disaggregation engine.

Model Usage

Guy Carpenter's Japan Typhoon model utilizes the industry-owned, open-source OASIS loss modelling platform and provides various levels of output, including average annual losses (AAL) and event loss tables. The model is suitable for underwriting purposes, with supported data at high resolution.



Contacts

If you are interested in learning more about our Japan typhoon model or would like to organize a technical presentation about the details, please contact one of the team members below:

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About Guy Carpenter

Guy Carpenter & Company, LLC is a leading global risk and reinsurance specialist with 3,400 professionals in over 60 offices around the world. Guy Carpenter delivers a powerful combination of broking expertise, trusted strategic advisory services and industry-leading analytics to help clients adapt to emerging opportunities and achieve profitable growth. Guy Carpenter is a business of Marsh McLennan (NYSE: MMC), the world's leading professional services firm in the areas of risk, strategy and people. The Company's 85,000 colleagues advise clients in 130 countries. With annual revenue of nearly \$20 billion, Marsh McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading businesses including Marsh, Mercer and Oliver Wyman. For more information, visit www.guycarp.com and follow us on LinkedIn and Twitter @GuyCarpenter.