

Global Tsunami Scenario Catalog

FEATURES

Near- and far-field tsunami scenarios that provide the tsunami inundation extent and banded inundation depths from M8.0 to M9.5 earthquake events on subduction zones around the globe

WHERE COULD THE NEXT BIG TSUNAMI HAPPEN?

The 2011 Tohoku Earthquake and Tsunami highlighted that, in very large earthquakes, tsunami inundations can be the principal driver of insured losses. It also showed that official earthquake hazard models had projected maximum magnitudes for segments of the Pacific subduction zone off northeast Japan that were too low. This false confidence in the upper limit of maximum earthquake magnitudes in northeast Japan invites the question: where else could unexpected giant earthquakes and their accompanying tsunami inundations occur?

The RMS® Global Tsunami Scenario Catalog explores the potential regions where such an event could occur, providing global insight into the risk from tsunami-related inundation.

The Global Tsunami Scenario Catalog can be used for location-level risk assessment and accumulation management, supporting growth strategies and underwriting guidelines.

KEY APPLICATIONS

RMS Global Tsunami Scenarios can be used to more accurately and reliably assess potential losses around exposure accumulations, inform strategic growth decisions, and support underwriting guidelines.

Manage Accumulations

Use the scenarios to monitor and manage accumulations at coastal areas and river deltas. Banded inundation depths allow for the application of damage factors and a more accurate assessment of potential losses.

Strategize Growth

Identify areas at risk of tsunami inundation using inundation extent and banded inundation depths, and use these insights to target areas to either grow or reduce exposure.

Stress-Test Portfolios

Use banded tsunami inundation depths to stress test a portfolio by applying damage factors to the exposure at risk. For example, you can compare the potential losses for a tsunami inundation with a 75 percent damage factor versus a 25 percent damage factor for the same scenario.



Assess Location-Level Risk

Tsunami scenarios are available at a range of high resolutions across the globe, ranging from 10–90 meters (30–300 feet), enabling more reliable location-level risk decisions at the point of underwriting.

Establish and Support Underwriting Guidelines

RMS Global Tsunami Scenarios can be used to establish and support tsunami-related underwriting guidelines. For example, inundation insights can be used to decline or more stringently price locations within 1.6 kilometers (1 mile) of a tsunami inundation greater than 3 meters (10 feet).



Inundation zone of a tsunami scenario from the RMS Global Tsunami Scenario Catalog. Color banding (dark blue to light blue) illustrates the inundation depth.

THE BEST OPTIONS FOR YOUR BUSINESS

RMS tsunami scenarios can be used with your own exposure data, or with RMS exposure datasets to gather valuable information on potential locations at risk from tsunami inundation. The RMS Global Tsunami Scenario Catalog is platform-independent and released in ESRI shapefile-format GIS polygons.

To learn more about the RMS Global Tsunami Scenario Catalog, email tsunami-catalog@rms.com.

ABOUT RMS

RMS models and software help insurers, financial markets, and public agencies evaluate and manage catastrophe risks throughout the world, promoting resilient societies and a sustainable global economy. Our scientific and objective measurement of risk facilitates the efficient flow of capital needed to insure, manage, and mitigate risks to reduce the consequences of disasters.

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