



RMS provides location-level hazard data for all U.S. exposure with significant hurricane, flood, earthquake, or severe convective storm risk. Hazard data incorporates site-specific risk factors and is utilized for a range of applications:

- Establishing underwriting guidelines and pre-screening locations at the point of underwriting
- Understanding exposure accumulations in at-risk areas
- Setting deductible levels
- Deriving rating zones

Hurricane Hazard Data

Distance to Coast

RMS Distance to Coast data follows the contours of the natural coastline, including estuaries, bays, and inlets, to aid in the accurate characterization of a location's hurricane risk from wind or storm surge damage. As one of the most common parameters used in underwriting and submission screening, Distance to Coast data is a key factor in establishing rating zones, deductible levels, and internal underwriting objectives. Coverage: All hurricane-exposed states along the Eastern Seaboard and the Gulf Coast.

Hurricane Risk Score

Hurricane Risk Scores consider both hazard and vulnerability, providing highly sophisticated location-level risk metrics for deriving rating zones, pre-screening locations at submission, and identifying locations requiring further action, such as a detailed financial loss analysis or a site inspection. Scores quantify relative property risk in hurricane-prone coastal areas based on the 500-year expected damage ratio, represented as a percentage of total building value. Property risk is evaluated on a scale of 1–10 by determining the impact of risk factors such as distance to coast, hurricane intensity and wind speed—on a building based on the construction and occupancy characteristics entered. Coverage: 22 hurricane-exposed states along the Eastern seaboard, Gulf Coast, and Hawaii, at variable resolution grid (VRG) resolution.

Hurricane Risk Profile

Hurricane Risk Profiles facilitate detailed risk assessment by region as well as by location. For a given location, Risk Profiles provide Hurricane Risk Scores for 100-year, 250-year, and 500-year expected damage ratios, and quantify the location's risk relative to other properties of similar construction within the same county and state. Relative risk is displayed as a percentile rank, which indicates the percentage of risks that have a lower hurricane risk than the location entered. Coverage: 22 hurricane-exposed states along the Eastern seaboard, Gulf Coast and Hawaii at VRG resolution.

Windpool Zones

Windpool Zone data enables the identification of eligible windpool zone properties in all coastal areas that participate in state-sponsored insurance pools. Determine whether a risk should be retained as a "voluntary writing" or referred to a state plan, based on your organization's underwriting guidelines and individual state requirements. Coverage: Alabama, Florida, Georgia, Louisiana, Mississippi, New Jersey, North Carolina, South Carolina, and Texas.

Storm Surge

RMS Storm Surge data provides an assessment of the surge risk to a property. Derived from the RMS Hurricane model, the data identifies whether a property is located within the 100-year, 250-year, 500-year, or 1000-year return period zones, and the associated depth of water. The Storm Surge zone data provides an alternative view of risk to FEMA's Flood Insurance Rate Maps (FIRMs) and is an ideal metric for pre-screening locations at submission, and identifying locations requiring further action such as a detailed financial loss analysis or a site inspection. Coverage: All hurricane-exposed states along the U.S. Eastern Seaboard and the Gulf Coast.

Flood

Enhanced Flood Zones

RMS Enhanced Flood Zone data allows you to assess a property's risk to flooding and identify locations in participating National Flood Insurance Program (NFIP) communities. Zones are derived from the FEMA FIRMs and incorporate information on the flood zone type (e.g. within a 1-in-100 year flood zone), and the base flood elevation. Enhanced Flood Zone data is updated on a quarterly basis to ensure data reflects the latest view of flood risk as issued by FEMA. Coverage: All U.S. counties participating in the NFIP.

Earthquake

Distance to Fault

RMS Distance to Fault data is used to calculate a location's distance from the nearest major and minor faults, as well as the fault's expected magnitude and return period, to inform risk selection and rating. The maximum magnitude event with associated return period, and the 100-year return period event magnitude are provided for each fault. Coverage: All 50 U.S. states

Earthquake Risk Score

Earthquake Risk Scores consider both hazard and vulnerability, providing highly sophisticated location-level risk metrics for deriving rating zones, pre-screening locations at submission, and identifying locations requiring further action, such as a detailed financial loss analysis or a site inspection. Scores quantify relative seismic risk for any property in the U.S. based on the 500-year expected damage ratio, represented as a percentage of total building value. Property risk is evaluated on a scale of 1–10 by determining the impact of risk factors—including distance to fault, likelihood and severity of earthquake events, local soil conditions, liquefaction and landslide susceptibility—on a building based on the construction and occupancy characteristics entered. Coverage: All 50 U.S. states, at VRG resolution.

Earthquake Risk Profile

Earthquake Risk Profiles facilitate detailed risk assessment by region as well as by location. For a given location, Risk Profiles provide Earthquake Risk Scores for 100-year, 250-year, and 500-year expected damage ratios, and quantify the location's risk relative to other properties of similar construction within the same county and state. Relative risk is displayed as a percentile rank, which indicates the percentage of risks that have lower earthquake risk than the location entered. Coverage: All 50 U.S. states, at VRG resolution.

MMI (Ground Shaking Intensity)

RMS Ground Shaking Intensity data provides high-resolution Modified Mercalli Intensity (MMI) measurements for accurate pre-screening of properties based on the expected intensity of earthquake ground shaking for the 100-year, 200-year, 250-year, and 475-year return periods. Intensity measurements incorporate the impact of local soil conditions, which can magnify or dampen shaking intensity. Coverage: All 50 U.S. states, at VRG resolution.

Soil Type

RMS Soil Type data provides an indicator of the expected response of soil to ground shaking and the associated degree of structural damage to a property in the event of an earthquake. Data enables the differentiation of individual risks on a site-specific basis, accounting for potentially substantial variations in local soil types. Soil is classified into four types based on rock type, age, composition, degree of weathering, and other characteristics. Coverage: All earthquake-prone areas of the U.S.; high-resolution coverage for the western states of the U.S.

Liquefaction Susceptibility

RMS Liquefaction Susceptibility data identifies locations at significant risk of liquefaction, as earthquake-induced liquefaction of underlying soil can cause building foundations to lose their load-bearing capacity, resulting in extensive property damage. The data accounts for local variations in liquefaction susceptibility, enabling site-specific risk differentiation at the point of underwriting. A location's liquefaction susceptibility is categorized based on local site conditions such as soil type, soil moisture content, and degree of consolidation. Coverage: All earthquake-prone areas of the U.S.; high-resolution coverage for the western U.S. states.

Landslide Susceptibility

RMS Landslide Susceptibility data provides a measure of a site's relative risk to landslides in the event of an earthquake. Coverage: All earthquake-prone areas of the U.S.; high-resolution coverage for California, the Puget Sound region of Washington, and the eastern U.S.

Alquist-Priolo Zones

Alquist-Priolo Earthquake Fault Zones are regulatory zones around active faults in the state of California. The zones are defined by the State Geologist to identify areas at risk from surface fault rupture. Zone boundaries are approximately 500 feet on either side of major active faults, and approximately 200–300 feet on either side of well-defined minor faults. Alquist-Priolo Earthquake Fault Zones are primarily used to prevent the construction of buildings on the surface trace of active faults. Coverage: California

Severe Convective Storm

Severe Convective Storm Risk Score

Severe Convective Storm Risk Scores consider both hazard and vulnerability, providing highly sophisticated location-level risk metrics for deriving rating zones, pre-screening locations at submission, and identifying locations requiring further action, such as a detailed financial loss analysis or a site inspection. Scores quantify relative risk from tornado, hail, and straight-line winds, for any property in the U.S. based on the 100-year expected damage ratio, represented as a percentage of total building value. Property risk is evaluated on a scale of 1–10 by determining the impact of risk factors—including the likelihood and severity of a severe convective storm event—on a building based on the construction and occupancy characteristics entered. Coverage: All 50 U.S. states, at VRG resolution.

Severe Convective Storm Risk Profile

Severe Convective Storm Risk Profiles facilitate detailed risk assessment by region as well as by location. For a given location, Risk Profiles provide Severe Convective Storm Risk Scores for 20-year, 50-year, 100-year, and 250-year expected damage ratios, and quantify the location's risk relative to other properties of similar construction within the same county and state. Profiles also include the peril (tornado, hail, or wind) that is the principal driver of risk for that location and return period. Relative risk is displayed as a percentile rank, which indicates the percentage of risks that have a lower severe convective storm risk than the location entered. Coverage: All 50 U.S. states, at VRG resolution.

Subsidence

Distance to Sinkhole, Distance to Mine, and Sinkhole Hazard Zones

RMS Subsidence data is used to calculate a location's distance from the 5 nearest sinkholes and underground mines as well as sinkhole hazards zones, which identify areas susceptible to sinkholes due to their underlying geology. These metrics can be used to inform risk selection, rating, and defining of rating zones. Coverage: All 50 U.S. states

General

Slope

RMS Slope data is calculated based on source data from the United States Geological Survey's Digital Elevation Model (DEM). Slope data is available at 1° DEM resolution (grid spacing of approximately 90 meter) is available for all 50 U.S. states. Data at 7.5' DEM resolution (grid spacing of approximately 30 meters) is available for most major urban centers in the U.S., as well as regions with large variations in elevation.

Elevation

RMS Elevation data covers the entire U.S. and is calculated based on source data from the United States Geological Survey's Digital Elevation Model (DEM). Elevation data is available at 1° DEM resolution (grid spacing of approximately 90 meter) for all 50 U.S. states. Data at 7.5' DEM (grid spacing of approximately 30 meters) is available for most major urban centers in the U.S., as well as regions with varied topography for the following 24 states and territories: AL, CA, CT, DC, DE, FL, GA, HI, LA, MD, ME, MS, NC, NH, NJ, NY, OR, RI, SC, TX, VA, VT, WA and WV.

Licensing RMS Hazard Data Products

All U.S. hazard data products can be licensed directly for in-house use and integration. Selected data sets are integrated within RMS peril models.

For more information, contact your RMS Account Manager, or email info@rms.com.