

Wind and Hail Risk

An advanced methodology for predicting wind and hail probability

In the U.S., convective storms—storms generated by heat from the earth and extreme moisture—are frequent if not daily occurrences. These storms produce strong winds that may generate tornados and hail, as well as heavy rains that can also cause localized floods. However, prior to 2011 when the nation experienced a severe spike in weather-related events, most insurers and reinsurers considered loss from severe wind and hail a cost of doing business.

The increase in claims, shift in geographic losses, and some climate change-related state mandates, have led many in the industry to revisit the increased financial risk posed by severe wind and hail events. With this in mind, CoreLogic® scientists have developed a comprehensive methodology for predicting wind and hail probability that identifies the additional damage that convective storms produce, as well as the shift in geographic regions where they occur.

Built upon advanced modeling techniques using a 6.2 x 6.2-mile grid, CoreLogic Wind Probability and Hail Probability data layers are available through a number of delivery options, including RiskMeter Online™. Together, these data layers help insurers and a variety of other industries more accurately mitigate and geographically distribute risk associated with convective storms and their resulting perils.



Insurance companies, enterprise risk managers and even state Departments of Insurance are becoming more attuned to changing climate conditions, population dispersion and new patterns in hazard-related losses.

The CoreLogic Wind Probability data layer consists of:

- ▶ A numeric ranking, 1-12, of probability
- ▶ A nominal description of probability from Very Low to Extreme
- ▶ A separate calculation for different types of wind events including tornados, hurricanes, and straight-line winds
- ▶ A 10-year probability value—for all but hurricane, which is 100-year

The CoreLogic Hail Probability data layer consists of:

- ▶ A numeric ranking, 1-12, of probability
- ▶ A nominal description of probability from Very Low to Extreme
- ▶ Identification of areas more susceptible to damaging hail

Wind and Hail Beyond Tornado Alley

Tornados can occur any time of the day, any day of the year. According to National Oceanic and Atmospheric Administration (NOAA), tornados are most prevalent in the United States with an average count of 1,000 recorded each year. Although they range in intensity, a strong tornado can lift structures off their foundations or hurl car-sized objects through the air.

Long believed to be isolated to a narrow corridor in the middle of the U.S. known as “Tornado Alley”, recent catastrophic events have led many experts to identify populated areas outside of Tornado Alley as also susceptible to damaging wind and hail events.

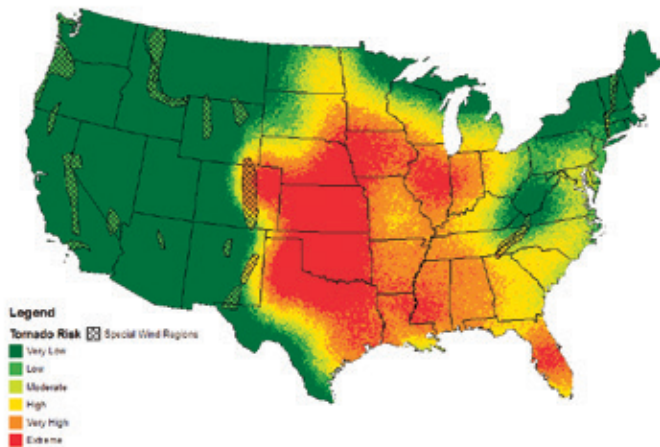
A recent *Tornado and Hail Risk Beyond Tornado Alley* research report published by CoreLogic, confirms that Very High to Extreme Risk is common throughout Tornado Alley. However, the report also indicates that varying levels of tornado risk extends deep into the Midwest and as well as through several Southeastern states. Meanwhile, the risk of hail damage was found to be more widespread east of the Rocky Mountain front and to extend further east than commonly thought.

Key findings from the report include:

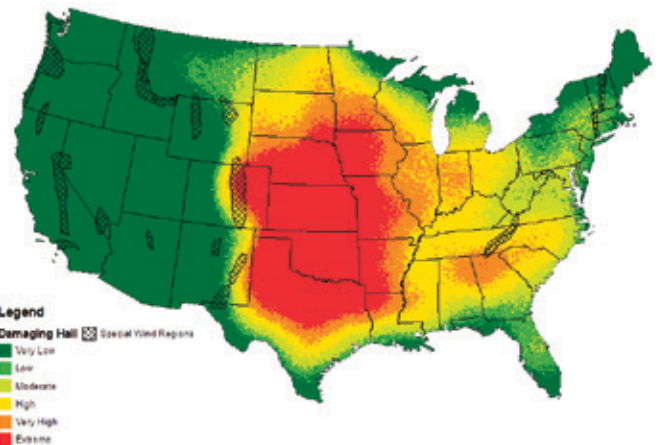
- ▶ Higher risk for tornado touchdowns is not limited to the central Great Plain states and actually extends across most of the eastern half of the U.S.
- ▶ The areas of highest hail risk extends outward from the Central Great Plains to include states as far east as Georgia and the Carolinas
- ▶ Extreme tornado risk extends across part of 26 states and at least 11 states face extreme hail risk
- ▶ At least 15 states contain significantly large regions facing Very High or Extreme tornado risk and almost every state east of the Rocky Mountains face as least some level of hail risk

Delivery Options:

- ▶ **RiskMeter Online:** Easy, online access to CoreLogic natural hazard data layers
- ▶ **GIS Data Layers:** Available for loading into an existing infrastructure
- ▶ **Web Service:** Data access via a XML/SOAP interface
- ▶ **Batch/Book of Business Processing:** Process a single file or the entire portfolio



A CoreLogic map illustrates U.S. tornado risk ranging from Very Low to Extreme risk.



A CoreLogic map illustrates U.S. hail risk across almost every state east of the Rocky Mountains.

FOR MORE INFORMATION, PLEASE CALL 855-267-7027
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