

# RMS V13 IS COMING!

RMS is finalizing Version 13.0 of its North Atlantic hurricane model for release at the end of July 2013.

Currently, there are no projected changes to the earthquake or tornado hail models; however, preliminary information suggests significant decreases in the hurricane model losses. These projections are based on large homogeneous portfolios containing isolated areas of increases. Results will vary based on geography and portfolio make up. While perhaps a conservative approach, we advise that **the trend is toward a decrease, but bear in mind that every portfolio is different.**

The key drivers to the updates in V13 are the changes to RMS' Medium Term (also named Near Term) hurricane rates, which are:

- Forecasting improvements that reflect the academic community's ongoing research into hurricane activity, landfall proportion of Atlantic basin hurricanes as well as the addition of new active baseline forecast models
- Methodological improvements for MTR forecast, e.g., updated criteria for classifying hurricanes at landfall and changes to the rate forecasting method by hurricane category
- Inclusion of the most recent hurricane season's data in the forecast, e.g., up-to-date historical North Atlantic hurricane database HURDAT and sea surface temperature data
- New findings applied to changes in the geographic distribution (regionalization) of hurricanes with varying SSTs, and improved methods to implement these findings

The MTR forecast decreases significantly between 2011 and 2013 for all classes of hurricanes in Florida and the Southeast. The changes in activity rates should not be interpreted as direct indicators of changes in portfolio loss results. **The impact of change in MTR forecast on loss results will depend on the geographical distribution of a portfolio and its composition.**

There have also been relatively small updates to the historical long-term rates (LTR) model across the entire North Atlantic hurricane



model suite. These reflect changes that were introduced to The National Oceanic and Atmospheric Administration's (NOAA) Atlantic basin hurricane database (HURDAT) since RiskLink Version 11.0 model was finalized and released. The HURDAT database update includes three additional years of hurricane season data, as well as reclassification of older storms within the database, as part of the ongoing "re-analysis" project.

Changes have also been made to the way the model handles storm surge. The following is a list of changes to the storm surge portion of the model (it is still early to estimate the impact on modeled losses):

- Update of the Federal Emergency Management Agency (FEMA) Flood Zone and Base Flood Elevation (BFE) data layers with the most up-to-date data in conjunction with the RMS U.S. Enhanced Flood Zone data layers and the updated minimum building elevation assumptions in RiskLink V13 will be updated to reflect the BFE.

- Expanded application of minimum building elevation to all occupancies; implementation of an enhanced methodology for determining default building elevation based on location-level data from FEMA.
- Revisions to the storm surge coverage leakage function in RiskLink 13.0. The updated function better reflects a more up-to-date assessment of uninsured storm surge losses based upon reanalysis of data.
- The built in National Flood Insurance Program (NFIP) take-up rate assumptions have been updated in the coverage leakage model based on new location-level policy information.
- Localized flood defense updates. For example, the Hurricane Ike historical event losses for Texas are expected to be reduced, as the model now accounts for any flood protection system.

Given the numerous changes to the model, the trend is for significant decreases in the modeled losses, **but we need to remember that a portfolio's make up can greatly affect the results.**

## CONTACT

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