



October 8, 2018

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Floyd Yager, Chair  
Florida Commission on Hurricane Loss Projection Methodology  
c/o Donna Sirmons  
Florida State Board of Administration  
1801 Hermitage Boulevard, Suite 100  
Tallahassee, FL 32308

Re: Request for Functional Equivalence for RiskLink® 18.0, Build 1930

Dear Floyd Yager:

RMS is requesting functional equivalence status for RMS North Atlantic Hurricane Models, RiskLink 18.0, Build 1930.

In accordance with the Process for Determining the Acceptability of a Computer Simulation Model, Section VI.G, **(Interim Model Updates after a Model has been Determined to be Acceptable by the Commission)** in the November 1, 2015, Report of Activities (ROA), we have prepared the following forms for the Commission's review. These are provided for the currently accepted model, the proposed updated/revised version of the model software and the comparison between the two versions demonstrating no change.

- Form A-1 (Zero Deductible Personal Residential Loss Costs by ZIP Code)
- Form A-4 (Output Ranges, 2012 FHCF Exposure Data)
- Form A-8 (Probable Maximum Loss for Florida)
- Form S-5 (Average Annual Statewide Loss Costs – Historical versus Modeled)

In addition, per email discussions with Florida Hurricane Catastrophe Fund State Board of Administration of Florida staff on October 4, 2018, and in accordance with the Process for Determining the Acceptability of a Computer Simulation Hurricane Model, Section VI.G, **(Interim Model Updates after a Model has been Determined to be Acceptable by the Commission)** in the November 1, 2017, ROA, the following form is also included for the Commission's review. It is provided for the currently accepted model, the proposed updated/revised version of the model software and the comparison between the two versions demonstrating no change. No additional forms were required to be submitted based on the 2017 ROA because the currently accepted model was found acceptable under the 2015 ROA.

- Form V-2 (Hurricane Mitigation Measures and Secondary Characteristics, Range of Changes in Damage). Note that reference building definitions have changed between the 2015 ROA and 2017 ROA for this form. Thus, the form and reference building definitions are based on the 2015 ROA to ensure consistency with the currently accepted model.

Revised Appendices E and F are also enclosed, which show RiskLink 18.0, Build 1930 (indicating the revised version) on relevant screens and reports.

The forms have been provided for both the currently accepted model and the revised version of the model. A percentage change comparison demonstrates that there is no change in output between the versions.

## **Nature of the Model Updates**

- Changes to the North Atlantic Hurricane Models
  - Enhancements to storm surge hazard and vulnerability modeling
  - Expansion of model coverage to west coast of Mexico
- Other model changes/additions
  - New peril models for India Flood, Philippines Typhoon and Flood, and South Korea Earthquake
  - Updates to the RMS India Earthquake, Australia Earthquake, Australia Cyclone models
  - Expansion of the RMS Marine Cargo, Builders Risk, Industrial Facilities, and Terrorism modeling capabilities

## **The Effect to the Underlying Accepted Model**

Modeling of storm surge is an option available in the model, but it is not enabled in the FCHLPM analysis profile settings that are used for the submission and by clients doing rate filings. Thus there is no impact on the underlying accepted model output.

The extension of model coverage in Mexico and the addition of other models to the Risklink suite do not affect Florida outputs.

## **The Effect on the Model Results**

The forms in the submission (as demonstrated), as well as extensive internal testing, show no difference in Florida hurricane wind model results.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Waters". The signature is fluid and cursive, with the first name "Jeff" being more prominent and the last name "Waters" following in a similar style.

Jeff Waters  
Senior Product Manager  
Model Product Management

Enclosures (9)