

## Summary of the Hurricane Model Input Assumptions

### 2020 TWIA Rate Review

TWIA 2020 Rate Review relied on the results of two different hurricane simulation models -- one prepared by Applied Insurance Research (AIR) and one model prepared by Risk Management Solutions (RMS).

The following table lists the model input assumptions TWIA used in its current rate analysis.

<b>Model Inputs</b>	<b>AIR</b>	<b>RMS</b>	<b>Comments</b>
Model Versions	Touchstone v6	RiskLink v18	TWIA uses the most current version available at the time of its analysis. Subsequent versions may become available after the date of its analysis.
Peril	North Atlantic Hurricane	North Atlantic Hurricane	
Occurrence vs Aggregate Loss Estimates	Aggregate Loss Estimates	Aggregate Loss Estimates	
Storm Surge	Excluded	Excluded	TWIA includes a provision equal to 10% of the increase in modeled average annual losses due to storm surge in its hurricane loss provision for both commercial and residential. This provision is considered necessary because TWIA anticipates that, while its policies exclude flood losses, including losses attributable to storm surge, storm surge can be accompanied by damage for which the cause of loss (wind vs. flood) is difficult to determine on account of the observational evidence available after the storm (e.g., slab claims). This provision is intended to cover the additional losses that TWIA would pay in settlement of these claims.
Demand Surge/Loss Amplification	Included	Included	This component of the output estimates the degree to which losses are escalated by an increase in the costs of building materials and labor costs as demand exceeds supply.

Loss Adjustment Expenses (LAE)	Excluded	Excluded	For hurricane losses, the indicated LAE ratio of 15% is equal to the weighted average of the 10 years of actual hurricane experience included in the analysis.
Long Term or Near-Term Storm Frequency	AIR provided both, TWIA applied Long Term	RMS provided both, TWIA applied Long Term	Near-Term or Medium-Term Rates represent the five-year, medium-term outlook of North Atlantic hurricane activity. Long-Term Rates represent the event rates that are consistent with the long-term historical average.
Depop Policies through Assumption/ Reinsurance Program	Excluded	Excluded	TWIA excludes the policies for purposes of generating the Average Annual Loss (AAL).
In-force Exposure	As of 11/30/2019	As of 11/30/2019	Includes information at risk level including property location, age of home, age of roof, construction characteristics, coverage limits, and deductibles.

**Cautionary Notice:**

**Limitations of Loss Modeling Analysis**

Loss distributions are used for a variety of purposes, including a determination of potential exposure based on subjective assumptions relating to environmental, demographic and economic factors. Such factors are inherently uncertain and the Association does not model all of the types of perils that may result in losses to the Association. Certain events that may result in losses to the Association are not considered in the development of the loss estimates contained in this Official Statement, including tropical storms and depressions of less than hurricane strength and other non-tropical wind events such as straight line wind and hailstorms. The assumptions and/or methodologies used in connection with the preparation of estimated losses derived by the Association may not constitute the exclusive set of reasonable assumptions, and the use of alternative assumptions and/or methodologies could yield results materially different from those generated or relied upon by the Association. Each model run is based on exposure information that will differ from the Association’s actual exposure based on future action the Association may take, including changes to existing policies and the writing of new business. Loss distribution models are not facts, projections or predictions of future losses, and should not be relied upon as such. Actual loss experience can materially differ from the loss estimates used by the Association in the course of its business operations.