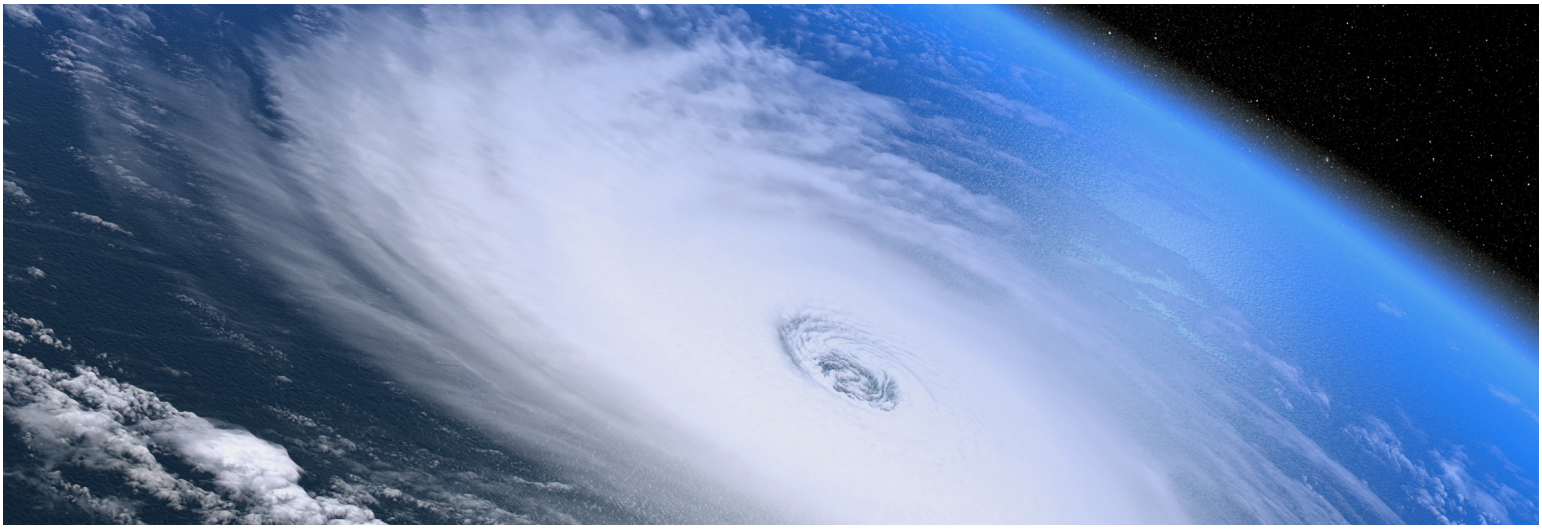

HurLoss®

FACT SHEET

PHYSICS-BASED HURRICANE HAZARD MODELING

- Use of hurricane pressure field as primary model input eliminates high bias found in models fit to HURDAT2 wind speeds
- Derives wind speeds and directions by numerically solving the differential equations of a translating storm instead of using approximate parametric models
- Includes a modern hurricane boundary layer model based on peer-reviewed, published fits to dropsonde data
- Surface friction modeling approach produces the most accurate transition of winds from sea-to-land found in any commercially available model

ENGINEERING LOAD AND RESISTANCE MODELING

- Allows validation of both physical damage and economic loss
- Accurately predicts building response at hazard intensity levels where claims data are sparse or non-existent
- Uses paid claims data for validating and refining a complete 3-D engineering model instead of fitting a purely statistical model
- Provides an explicit framework for proper propagation of uncertainties
- Reduces need for engineering judgment and provides explicit mechanisms for reducing uncertainties
- Accurately models interactions between key building characteristics without the need for extreme simplifying assumptions
- Explains why and how losses in high-value homes are correlated with square footage

ARA®

FOR MORE INFORMATION, CONTACT:
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HurLoss®

FACT SHEET

ARA'S HURRICANE MODEL IS THE MOST WIDELY PUBLISHED AND PEER REVIEWED MODEL AVAILABLE TO THE INSURANCE INDUSTRY FOR CATASTROPHE MODELING:

- Basis for structural design in hurricane-prone states since 1998 (ASCE 7)
- Accepted for use in Florida since 2000 (FCHLPM, FLOIR, FLDCA)
- Used for emergency management and mitigation planning nationwide since 2003 (FEMA)
- Selected by Lloyd's of London for the Oasis Solutions Project in 2015

HURLOSS IS AVAILABLE ON MULTIPLE PLATFORMS:

- Oasis Loss Modeling Framework
- Nasdaq Risk Modeling for Catastrophes (NRMC) Platform
- Moody's RMS® Intelligent Risk Platform™
- Xceedance On-Demand Catastrophe Modeling Service
- ARA HurLoss Platform *(Version 11.0 accepted by Florida Hurricane Commission on June 2, 2023)*

HURLOSS INCLUDES THE FOLLOWING ANALYSIS OPTIONS:

Regions

- Mainland United States: TX, LA, MS, AL, FL, GA, SC, NC, VA, WV, MD, DC, DE, PA, NJ, NY, CT, RI, MA, VT, NH, ME

Full North Atlantic basin model coming soon

- Caribbean
- Canada
- Mexico
- Central America

Event Sets

- 64,000-event stochastic catalog with current climatology rates, future climatology rates, long-term historical climatology rates, or warm sea surface temperature conditioned rates
- Historical event set consisting of over 200 events from 1900 onward
- Cat response event footprints available within 24-36 hours of landfall

Storm Surge

- NOAA SLOSH model with ARA event set and wind field
- Includes wave setup from coupled SLOSH-SWAN wave model
- Downscaled results for higher resolution of natural and man-made barriers
- Allows for "leakage" of storm surge losses into wind-only policies

Demand Surge

- Function of event intensity and size

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