Florida Public Hurricane Model

How It Affects You

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Nature of the Model

• Meteorological Component
  – Initial position plus random error, storm motion, and storm intensity change
  – Wind field model gives wind speed at all affected locations
Nature of the Model

• Vulnerability Component
  – Ability of exterior to withstand gusts of various speeds
  – Varies by building construction, region, roof type, roof cover, shutters, sub region, year built
  – Interior and utilities damage as function of exterior
  – Contents and additional living expense related to interior damage
Nature of Model

• Actuarial Component
  – Expected annual losses for a zip code for each policy aggregated to county, or territory level
  – 50,000 simulated storms with 3 second gusts corrected for terrain roughness
  – Deductible and demand surge applied
Nature of the Model

• Computer system architecture
  – User interface layer – web browser prototype
  – Application logic layer – bridges gap to spare users technical details
  – Database layer – stores, indexes, manages and models information
Input Form for Florida Public Model

- Save in text file, comma delimited
- Policy ID - unique identifier for record location purposes
- Zipcode location of property
- Year Built uses 4 digit number
- Construction type is Frame, Masonry, Manufactured, or Other
Input Form for Florida Public Model

- Property Value uses dollar amount of replacement cost
- Structure Coverage shows limit on damage to building in dollars
- App Coverage (appurtenant structures) shows limit on damage in dollars
Input Form for Florida Public Model

- Content Coverage shows limit on payment for contents losses in dollars
- ALE (additional living expense) Coverage shows limit on payment in dollars
- Hurricane Deductible shows the deductible amount in dollars
Input Form for Florida Public Model

• Deductible shows the deductible amount for losses other than hurricane in dollars
• Nature of Coverage is “R” for replacement cost, “A” for actual cash value
• County is the name of the county where property is located
Output of Florida Public Model

- Number of policies
- Number of policies excluded
- Aggregate expected losses by construction, territory, form, program, etc.
OIR Use of Florida Public Model

- Does filing use proprietary model results?
- Does the filing use a model that has been accepted by the Commission on Loss Projection Methodology?
- Can you provide access to all assumptions and factors in that model such that they can be disclosed in a rate proceeding?
OIR Use of Florida Public Model

• If requested, must provide exposure data to OIR to run public model
• This data is exempt from public records requests.
• Output will be used as benchmark to evaluate reasonableness of filing