Wind Model

The wind model for a hurricane takes into account the atmospheric pressure at the eye and the wind speed at the wall. The wind speed at any site is then computed up to a distance of 500 km taking into account all irregular topographies once the wind has hit land. The model has been calibrated with data of climate stations.

1. From the atmospheric pressure at the center of the hurricane, the radius of the eye is computed.

2. Given the distance to the eye wall and the path of the hurricane, the wind speed is computed up to a distance of 500 km at a height of ten meters over the sea level, without considering any land obstacle.

3. The model includes the computation of local surface effects since it contains the digital elevation maps of the entire region.

4. Wind variation due to height and surface obstacles is included in the model which has the local topographical and surface type information.

This Model is included in:

The ERN financial risk management software

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