

# ENSEMBLE FORECAST WINDFIELDS TO 120hrs

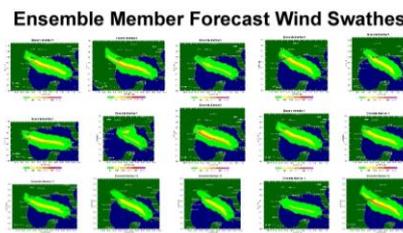
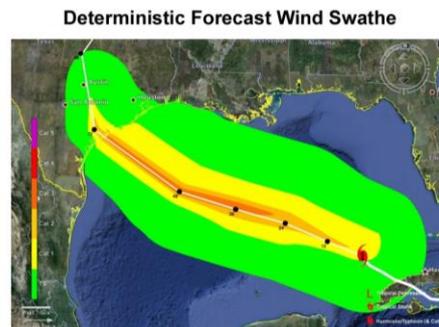
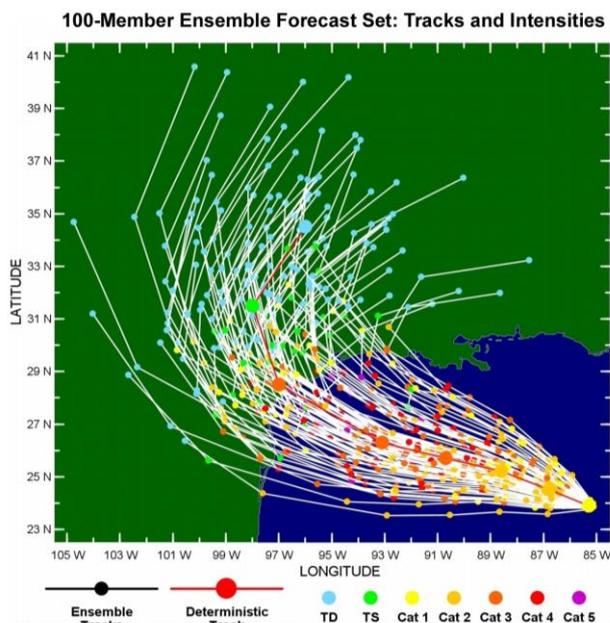
Tropical Storm Risk (TSR) Business works with the insurance industry around the world to help its clients manage the real-time risks associated with live tropical storms. As part of its range of subscription products TSR offers an ensemble set of 100 different forecast windfield/gustfield datasets each with the same chance of occurrence. These products allow insurers with access to a wind loss model to make probabilistic real-time loss estimates.

## Business Benefits

Ensemble forecast windfields are critical to delivering:

- Probabilistic forecast wind losses.
- Forecast losses based on a real event.
- Realistic uncertainty in forecast losses.
- Regular updated forecast losses.

## Key Features



*Product example for Hurricane Ike issued at 15UT on 10<sup>th</sup> September (2008). Display shows the TSR 100-member ensemble forecast set of tracks and intensities (left), the TSR most likely forecast windfield (top right), and the forecast windfields for 15 ensemble members (lower right).*

- ‘Advanced’ version of the *TSR Forecast Windfields* product.
- Recognises that hurricane wind-impact and wind-loss forecasts must be defined in terms of probability.
- Models the forecast uncertainty in real events and provides an alternative perspective to the simulated event output of catastrophe models.
- An ensemble set of 100 different forecast wind/gust swathes each with the same chance of occurrence.
- Insurers with access to a wind loss model may calculate the impact on their portfolios of each of the 100 outcomes. The likelihood that portfolio wind loss will exceed different thresholds then follows easily.
- Models the uncertainty in storm track and storm intensity. Models storm size and its effect on the rate of inland windfield decay. Models the impact of the change in surface roughness at landfall on wind/gust speed.
- User-friendly display with the wind contours of each ensemble member colour-coded at a range of thresholds up to Cat 5 strength (one minute sustained wind) and up to 190mph at 10mph intervals (3-sec maximum gust).

## Accuracy, Timeliness and Availability

- High accuracy wind modeling (assessed against post-event station wind observations 2004-2009).
- Real-time products issued within 20 mins of a public forecast advisory.
- Available up to five days in advance and updated every 6 hrs (12 hrs for Southern Hemisphere storms).
- Available for tropical cyclones worldwide.
- Available in a choice of four GIS formats for display on different Earth-mapping platforms.
- Historical product data available online from June 2010.

For more information including a free 7-day online trial please either go to [www.tropicalstormrisk.com/business](http://www.tropicalstormrisk.com/business) or contact Nick Wood on +44 (0)7768 615115 or [nick.wood@eurotempest.com](mailto:nick.wood@eurotempest.com)