



# IMMEDIATE POST-EVENT MARKET LOSS

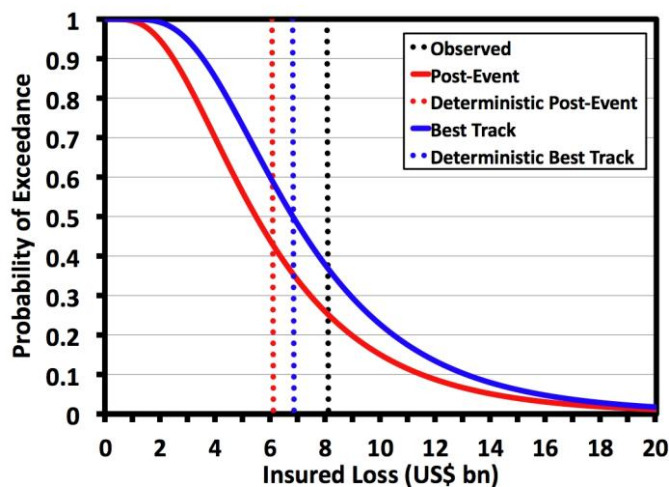
Tropical Storm Risk (TSR) Business data help (re)insurers to better manage their real-time risk from live tropical storms worldwide. TSR's new immediate post-event market loss product is being introduced in beta mode for the 2011 hurricane season. This innovative development gives probabilistic and deterministic estimates of US market loss by coastal state within a few hours of a storm making landfall.

## Business Benefits

The TSR immediate post-event market losses:

- Deliver realistic hurricane losses a few hours after US landfall.
- Provide probability of loss exceedance.
- Provide full range of possible loss scenarios.
- Provide losses by US coastal state.

## Key Features



Florida Hurricane	Actual Loss (\$mn)	IMMEDIATE POST-EVENT LOSS (\$mn)			ABSOLUTE LOSS ERROR (\$mn)			
		TSR	RMS	AIR	TSR	RMS	AIR	
Charley	8083	6093	5437	8000	1990	2646	83	
Frances	4652	2342	6531	7500	2309	1879	2848	
Ivan	4686	4247	3409	3134	439	1277	1552	
Jeanne	3265	6104	6531	7000	2840	3266	3735	
Dennis	855	1092	2644	1543	237	1789	688	
Katrina	707	205	1500	600	502	793	107	
Rita	34	57	34	23	23	1	11	
Wilma	10300	8893	8000	7500	1407	2300	2800	
<b>Avg</b>	<b>4073</b>				<b>Avg error</b>	<b>1218</b>	<b>1744</b>	<b>1478</b>
					<b>Avg % error</b>	<b>30</b>	<b>43</b>	<b>36</b>

**Left:** Product example for Hurricane Charley (2004). Plot displays the TSR probabilistic and deterministic immediate post-event market losses, and the probabilistic and deterministic losses computed using Charley's best-track data.

**Right:** Comparison of TSR, RMS and AIR immediate post-event losses for Florida striking storms in 2004/2005.

- Provides probability of market loss exceedance (ie the chance the insured market loss will exceed different thresholds) updated in real-time every 6 hours as a storm crosses a state.
- Provides probabilistic immediate post-event losses by US coastal state.
- Employs the TSR immediate post-event windfields and the TSR innovative loss methodology.
- Includes the real-time uncertainty in storm intensity and the uncertainty in the loss model.
- Provides market losses normalised to 2010 societal conditions.
- User-friendly information with probabilistic losses provided in excel chart and spreadsheet form.

## Accuracy, Timeliness and Availability

- High accuracy wind modeling (assessed against post-event station wind observations 2004-2009).
- TSR immediate post-event market loss estimates for Florida striking storms in 2004 and 2005 outperform slightly the early post-event losses issued by Cat modelling companies.
- Real-time product issued within 20 mins of a public forecast advisory.
- Available free to TSR clients during the 2011 hurricane season as a beta product for US striking storms.

For more information please contact Prof Mark Saunders on +44 (0)1483 204187 or [Mark.Saunders@tropicalstormrisk.com](mailto:Mark.Saunders@tropicalstormrisk.com).