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Even More Active 2004 Atlantic Hurricane Season Predicted by TSR Consortium

Revised outlook raises forecast by 20% and warns citizens against complacency

London, 5 August 2004 - Tropical Storm Risk (TSR), the award-winning* consortium of experts on insurance, risk management and seasonal climate forecasting led by the Benfield Hazard Research Centre at University College London, today increased its forecast for Atlantic hurricane activity in 2004 by 20%. The forecast was released to coincide with the start of the North Atlantic main hurricane season in August. Historically 86% of U.S. hurricane strikes and 96% of U.S. intense (major) hurricane strikes occur after 1 August.

TSR's revised hurricane outlook anticipates Atlantic basin and U.S. landfalling hurricane activity being 150% of average in 2004. The prediction includes:

- An 86% probability of an above-normal Atlantic hurricane season, a 13% probability of a nearnormal season and only a 1% chance of a below-normal season
- 14 tropical storms for the Atlantic basin as a whole, with eight of these being hurricanes and three intense hurricanes
- A 70% probability of above-normal U.S. landfalling hurricane activity, a 25% likelihood of a near-normal season and only a 5% chance of a below-normal season
- Four tropical storm strikes on the U.S., of which two will be hurricanes
- Two tropical storm hits, including one hurricane, on the Caribbean Lesser Antilles.

Dr Mark Saunders, the TSR lead scientist and Head of Seasonal Forecasting and Meteorological Hazards at the Benfield Hazard Research Centre, said the 20% forecast upgrade has occurred because two key climate factors which influence hurricane formation during August and September have become more enhancing for activity during the past month.

These factors are the expected values in August and September 2004 for the speed of the trade winds which blow westward across the tropical Atlantic and Caribbean Sea and the temperature of the sea waters between West Africa and the Caribbean where many hurricanes develop. The former influences

cyclonic vorticity (the spinning up of storms) in the main hurricane track region, while the latter provides heat and moisture to power incipient storms.

"Enhanced hurricane activity occurs with weaker than normal trades and with warmer than normal waters, said Saunders. "Since forecast accuracy increases with the approach of the hurricane main season we have greater confidence in this outlook than in our earlier forecasts", he added.

While the damage from US striking tropical storms and hurricanes between 2000 and 2003 has been 80% below average, Saunders warns against complacency. "Historically one in four of all Atlantic hurricanes have struck the US, he said. "However, over the past four years this ratio has fallen to just one in nine. This situation must soon correct itself and when it does we will witness far greater damage and disruption. It is 90% certain that landfalling storms and damage will be higher during the period 2004 to 2007 than during the last four years".

Hurricanes rank historically above earthquakes and floods as the U.S.'s most expensive natural disaster. The average damage bill per year from hurricane strikes on the continental US 1950-2003 is estimated to be US \$ 5.1 billion (economic cost) and US \$2.6 billion (insured cost) at 2003 prices and exposures.

TSR has an impressive forecast track record. Recent long-range forecast successes include those for the 2002 and 2003 Atlantic hurricane seasons, the 2002 and 2003 Northwest Pacific typhoon seasons, and for the 2001/2, 2002/3 and 2003/4 Australian-region tropical cyclone seasons. TSR forecasts may be accessed through the website <u>www.tropicalstormrisk.com</u>.

* Tropical Storm Risk was awarded the London Market Innovation of the Year Award at The British Insurance Awards 2004 for their global Tropical Storm Tracker. The judges praised Tropical Storm Risk for the way major market players - insurer Royal & SunAlliance, broker Benfield and claims services provider Crawford & Company - "had worked together to harness the academic expertise available to offer a service that was innovative, relevant and unquestionably an asset to the London market."

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Notes to Editors:

About Tropical Storm Risk (TSR):

Founded in 2000, Tropical Storm Risk (TSR) offers a leading resource for forecasting the risk from tropical storms worldwide. The venture provides innovative forecast products to increase risk awareness and to help decision making within the (re)insurance industry, other business sectors, government and society. The TSR consortium is co-sponsored by Benfield, the leading independent reinsurance intermediary, Royal & Sun Alliance, the global insurance group, and Crawford & Company, a global claims management solutions company. The TSR scientific grouping brings together climate physicists, meteorologists and statisticians at University College London and the Met Office. TSR won the prestigious London Market Innovation of the Year award at the British Insurance Awards 2004.

About Benfield Hazard Research Centre:

Benfield Hazard Research Centre is sponsored by Benfield, the leading independent reinsurance intermediary and risk advisory business. Benfield's customers include many of the world's major insurance and reinsurance companies as well as Government entities and global corporations. Benfield employs over 1,700 people based in over 30 locations worldwide. www.benfieldgroup.com

With over forty researchers and practitioners, the Benfield Hazard Research Centre is Europe's leading multidisciplinary academic hazard research centre and comprises three groups: Geological Hazards, Meteorological Hazards and Seasonal Forecasting, and Disaster Studies and Management. The Centre is based at University College London, which along with Oxford and Cambridge, is one of the UK's top three multi-faculty teaching and research institutions. <u>www.benfieldhrc.org</u>