



TSR Continues to Predict an Active Atlantic Hurricane Season

TSR's pre-season outlook reaffirms extended outlook and predicts Atlantic basin and U.S. landfalling activity will be 65% above norm in 2007. Scientists to keep close eye on key climate factors.

London, 31st May 2007 – With the start tomorrow of the 2007 hurricane season, Tropical Storm Risk (TSR), the award-winning consortium of experts on insurance, risk management and seasonal climate forecasting led by the Benfield UCL Hazard Research Centre at University College London, today announced its pre-season outlook for the 2007 hurricane season and said its extended outlook issued on 7th December remained essentially unchanged.

According to TSR, whose long-range outlooks for the exceptionally active 2004 and 2005 hurricane seasons (Lea and Saunders, 2006) and active 2003 hurricane season proved accurate, Atlantic basin and U.S. landfalling hurricane activity in 2007 will be active to high probability.

TSR's pre-season hurricane prediction includes:

- A 84% probability of an above-normal Atlantic hurricane season, a 13% probability of a near-normal season and only a 3% chance of a below-normal season
- 16 tropical storms for the Atlantic basin as a whole, with nine of these being hurricanes and four intense hurricanes
- A 84% probability of above-normal U.S. landfalling hurricane activity, a 14% likelihood of a near-normal season and only a 2% chance of a below-normal season
- Five tropical storm strikes on the U.S., of which two will be hurricanes
- Two tropical storm strikes on the Caribbean Lesser Antilles, of which one will be a hurricane

Professor Mark Saunders, the TSR lead scientist and Head of Weather and Climate Extremes at the Benfield UCL Hazard Research Centre at University College London says there are three main climate factors which will determine how active the Atlantic basin 2007 hurricane season is, while a fourth factor will also influence the level of US landfalling hurricane activity. These factors, which will be closely monitored by scientists at TSR over the next 2-3 months, are:

- (1) The speed of trade winds which blow westward across the tropical Atlantic and Caribbean Sea in

August and September. These winds influence cyclonic vorticity and vertical wind shear over the main hurricane track region. Cyclonic vorticity either helps or hinders the spinning up of storms depending upon its anomaly sign and magnitude. Vertical wind shear either helps or hinders a vertically coherent storm vortex from developing depending upon its magnitude.

- (2) The temperature of the sea waters between west Africa and the Caribbean where many hurricanes develop during August and September. Waters here provide heat and moisture to help power the development of storms within the hurricane main development region.
- (3) The presence of African dry air and Saharan dust over the hurricane main development region. Dry air and dust inhibits thunderstorm occurrence and tropical storm formation as happened during the start of the 2006 hurricane season.
- (4) Tropospheric wind anomalies between heights of 925mb and 400mb over North America, the east Pacific and the North Atlantic. Wind anomalies in these regions in July are indicative of persistent atmospheric circulation patterns that either favour or hinder evolving hurricanes from reaching US shores during August and September.

Allaying concerns over a repeat of the 2004 and 2005 US hurricane seasons, which saw nine hurricanes strike the US, Professor Saunders added: *"A repeat of the devastation seen in 2004 and 2005 is unlikely. The more likely scenario is that 2007 will produce US landfalling activity close to or slightly above the 1995-2006 norm level"*.

TSR forecasts may be accessed through the website www.tropicalstormrisk.com.

Reference: Lea, A. S. and M. A. Saunders, How well forecast were the 2004 and 2005 Atlantic and US hurricane seasons? *Weather*, **61**, no. 9, 245-249, 2006.

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For further information please contact:

Ansi Vallens
Signals & Strategies
New York
Tel: +1 518 392 4238
ansivallens@taconic.net

Professor Mark Saunders
Lead Scientist, TSR Consortium
Benfield Hazard Research Centre, UK
Tel: +44 (0) 1483 204187
mas@mssl.ucl.ac.uk

Chris Gatland
Benfield
London, UK
Tel: +44 (0) 20 7578 7485
chris.gatland@benfieldgroup.com

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 world's leading independent reinsurance and risk 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.

Tropical Storm Risk has won two major insurance industry awards during the past three years. In 2006 TSR was awarded the prestigious Risk Management Award at the British Insurance Awards, and in 2004 won the British Insurance Award for London Market Innovation of the Year. www.tropicalstormrisk.com

About Benfield UCL Hazard Research Centre:

Benfield UCL Hazard Research Centre is sponsored by Benfield, the world's leading independent reinsurance and risk intermediary. With over sixty researchers and practitioners, the Benfield UCL Hazard Research Centre is Europe's leading multidisciplinary academic hazard research centre and comprises three groups: Geological Hazards, Weather and Climate Extremes, 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. www.benfieldhrc.org