Australian Region Tropical Storm Season Expected to be Quieter than Average

London, 12th December 2001

The imminent Australian tropical storm season is likely to be quieter than average leading weather experts announced today.

The Tropical Storm Risk (TSR) consortium have issued updated projections for the coming Australian region tropical storm season which extends from December 2001 to the end of April 2002. They anticipate the season being the quietest since 1994/95.

TSR expects nine tropical storms to form in the seas around Australia between longitudes 100°E and 170°E, with five of these reaching severe tropical cyclone intensity. Such activity would be 25-30% below the seasonal climate norm for the past 25 years. TSR further expects that one tropical storm will strike northeast Queensland between Cooktown and Brisbane which is the climate average value.

The TSR lead scientists, Dr Mark Saunders and Dr Paul Rockett of the Benfield Greig Hazard Research Centre at University College London in the UK, working in collaboration with the Met Office and insurance and risk management experts, have developed innovative long-range forecasts for tropical storm activity around the world. Initial forecasts for each tropical storm season are made soon after the end of the previous season, with updated forecasts issued as the new season begins. TSR's extended range forecast for the 2001/02 Australian-region tropical storm season, issued in June, called for near average activity. However, this updated forecast indicates calmer conditions.

"Based on records from 1960, it is 85% probable that we will see below average Australian region tropical storm activity this season," said Saunders. "While we cannot predict when storms will occur, the majority will likely happen during a few two-weekly periods linked to the eastward passage of strong rainfall pulses associated with a phenomenon called the Madden Julian Oscillation," he added.

The main climate factor influencing the TSR seasonal Australian region tropical storm forecast for 2001/02 is the observed October-November sea surface temperature in the El Niño Southern Oscillation region 5°N to 5°S, 160°E to 150°W. This year the water temperature was 0.7°C warmer than average. Warmer than normal waters in this region lead to increased atmospheric vertical wind shear over the tropical cyclone forming seas around Australia; a condition favouring below average tropical storm activity.

Tropical cyclones are a costly natural disaster for northern Australia and adjacent southwest Pacific islands. The average damage bill per year 1990/1-2000/1 for this region is US $ 55 million (2001 $). By providing a lead time on storm forecasts, TSR helps governments, administrators and businesses plan ahead, thus reducing the risk and uncertainty from varying active and inactive storm seasons.

TSR forecasts cover three regions of tropical cyclone activity – Australia, Atlantic and the Caribbean, and the Northwest Pacific. The TSR team accurately forecast the numbers of Australian-region tropical storms, severe tropical cyclones and Queensland-striking tropical storms during the 2000/2001 season. The team also correctly predicted the above average 2001 Atlantic hurricane season activity and exactly predicted the numbers of NW Pacific tropical storms (25), typhoons (14), intense typhoons (7) and Japan-striking typhoons (2) occurring in 2000.

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Notes to Editors:

TropicalStormRisk.com (TSR)

TSR is a venture which has developed from the UK government-supported TSUNAMI initiative project on seasonal tropical cyclone prediction. The *TSR* consortium comprises experts on insurance, risk management and seasonal climate forecasting. The *TSR* industry expertise is drawn from the *Benfield Group*, the leading independent reinsurance intermediary, *Royal & SunAlliance,* the global insurance group, and from *Crawford & Company*, a global provider of risk management services. The *TSR* scientific grouping brings together climate physicists, meteorologists and statisticians at *UCL* (University College London) and the *Met Office*.

Australian Region Total Numbers in 2001/02

		Severe Tropical Cyclones	Tropical Storms
TSR Forecast (±SD)	2001/02	4.5 (±1.2)	8.9 (±2.2)
Average (±SD)	1976/77-2000/01	6.5 (±2.5)	11.5 (±4.0)
Actual	2000/01	6	10

Key: Severe Tropical Cyclone = 1 minute sustained wind > 63Kts = Hurricane Category 1 to 5
Tropical Storm = 1 minute sustained wind > 33Kts
SD = Standard Deviation
Forecast Error = Standard Deviation of independent hindcast errors for 1986/87-2000/01
Australian Region = Southern hemisphere 100°E to 170°E (Storm must form as a Tropical Cyclone within to count).

Queensland Landfalling Numbers in 2001/02

		Tropical Storms
TSR Forecast (±SD)	2001/02	1.1 (±0.8)
Average (±SD)	1976/77-2000/01	1.0 (±0.9)
Actual	2000/01	1

Key: Landfalling Region = Northeast Australian coast from 15°S (Cooktown) to 30°S (northern New South Wales).

The full forecast may be viewed as a PDF download at the TSR web site http:/tropicalstormrisk.com.