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Queensland Rainfall Variability in IPCC AR4 Model Runs

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The severe drought that has gripped much of eastern Australia, covering the coastal and inland parts of southern-central Queensland and New South Wales, since mid 1999, is one of the worst since detailed rainfall records started over 115 years ago.

It is uncertain how much rainfall changes are related to pattern of natural multi-decadal variability or are already indicators of long-term climatic changes in north eastern Australia.

Analyses of recent rainfall observations indicate a late drying trend in the 20th century with increasing temperatures. In order to investigate observed trends, data from a total of about twenty-one global climate models used by the latest Intergovernmental Panel on Climate Change (IPCC) assessment report (IPCC AR4 due for publication in 2007) is being analysed focusing upon northeast Australia. The simulated data are being compared to observational climatological data. Particular emphasis is upon the model's ability to represent 20th century climate in this part of the world which will place confidence upon simulated and observed pattern of decadal/multi-decadal variability.