

## **A Regional Model Intercomparison Over Brazil**

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During the past several years, the International Research Institute (IRI) and a few of the NOAA Applied Research Centers (ARCS), have been developing a community regional modeling intercomparison project to assess the capabilities and readiness of various regional climate models to downscale seasonal and climate change global forecasts for various applications. Brazil was chosen for the initial intercomparison since the IRI can make quite skillful seasonal global forecasts in this region. Transferability of regional climate models is also an issue that the Global Energy and Water-Cycle Experiment (GEWEX) has constantly stressed, since there is a recognized need to test regional models where they have not explicitly tuned their parameterizations. Besides the IRI, participating ARCS included the: Scripps Institution of Oceanography Experimental Climate Prediction Center (ECPC), Florida State Univ. Cooperative Ocean Atmosphere Project (COAPS), and the Goddard Institute for Space Studies (GISS). The NCEP/NCAR analysis was used as boundary conditions for two-year continuous simulations (Mar. 1, 1997-May 31, 1999). The resulting climate simulations were somewhat encouraging. Although large-scale errors dominated the solution, regional models did provide some improvement in precipitation simulations, especially in comparison to available station observations. Nonetheless, additional work is clearly needed to fully realize the added benefits of using regional models in conjunction with global models and analyses.