



Initial results of short-range ensemble prediction Eta model over South America

0.1 Josiane F. Bustamante, Jorge L. Gomes and Sin Chan Chou

Center for Weather Prediction and Climate Studies – CPTEC

0.2 National Institute for Space Research – INPE

Cachoeira Paulista, SP, 12630-000, Brazil

josiane@cptec.inpe.br

Short-range ensemble forecasting based on initial conditions perturbations were carried out using the Eta Model from February to April 2004. The Eta Model was configured with 40 km horizontal resolution and 38 layers. The domain covered was the most part of South America. A set of forecasts, up to 120 hours, were produced from initial conditions provided from CPTEC's Global Ensemble Prediction System (CGEPS). The Eta model used the Betts-Miller-Janjic convection parameterization scheme. The ensemble of forecasts was generated from four members obtained from CGEPS. The boundary conditions were updated every 6 hours. The ensemble mean forecast and the correlation between forecast spread and forecast error was calculated. High correlations suggest that the ensemble system possesses the ability to predict forecast skill for high and low spread cases. Evaluation of the ensemble means against observations based on rmse and bias will be shown. To evaluate rain the *Equitable Threat Score* and BIAS was used.