

**An analysis on estimates of ensemble size for seasonal prediction Bhaskar Jha and Arun Kumar Climate Prediction Center NCEP/NWS/NOAA Camp Spring, MD 20746**

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Results from a set of 85-member ensemble seasonal integration with ECHAM4.5 version of the model at T42 resolution are presented. The integrations are made using observed sea surface temperature (SST) for the 52-year period 1950-2002. The variation in seasonal skill is examined for December-January-February (DJF) mean 200-mb height over various regions to understand the affect of ensemble size on prediction skill. The ensembles are computed based on random selection among 85 members of the model run. Results indicate that 10 to 15 members are sufficient for the average skill to reach its saturation value. Variable dependence of the prediction skill on the ensemble size is also analyzed.