



The ISAC-CNR monthly forecasting system

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The monthly forecasting system, run experimentally at the ISAC institute of the National Council of Research of Italy, is presented. Ensemble forecasts of geopotential height, temperature, and precipitation anomalies are produced through the GLOBO model, a grid-point atmospheric general circulation model developed at the same institute. The model is run with horizontal grid spacing of 1.0 deg longitude x 0.75 deg latitude and 50 vertical levels. It produces, once a month, an ensemble of 32 forecasts initialized with GFS-NCEP perturbed analyses. Re-forecasts, initialized with ECMWF ERA-Interim reanalyses, available for the last 21 years, are also produced to determine the model climate and to recalibrate the ensemble forecast. The SST anomaly observed at the initial time is superimposed on the seasonal SST climatological trend computed from ERA-Interim. The forecast skill, defined as anomaly correlation and RMS forecast error, has been evaluated for about one year of monthly forecasts. Results indicate that the error growth and anomaly decay are in line with those of other monthly forecasting systems, as available in the literature.