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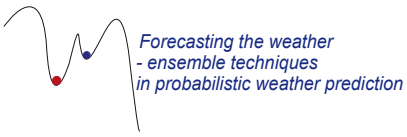


# Gridded OCF Probabilistic Forecasting for Australia

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The Bureau of Meteorology ‘s Gridded Operational Consensus Forecasting system (Gridded OCF) produces short to medium range gridded forecasts of surface meteorological parameters for the Australian region based on guidance from a “Poor Man’s Ensemble” of NWP (Numerical Weather Prediction) models.

Gridded OCF produces both deterministic consensus forecast products, such as the weighted ensemble average, and probabilistic forecasts of exceeding specified thresholds. Two methods for producing probabilistic forecasts are described. The first method uses a simple “model counting” approach, whilst the second method assigns probabilities based on the deterministic consensus forecast.

To date Gridded OCF probabilistic forecasts have mainly focused on the daily probability of precipitation exceeding pre-defined thresholds. However, there is increasing demand for probabilistic forecasts of other meteorological parameters, such as the probability of exceeding defined wind speed and temperature thresholds. Results showing both rainfall and wind speed probabilistic forecasts produced by the system are presented.

Calibration of the probabilistic Gridded OCF forecasts, so that the forecast probabilities of events match the observed frequency, is very important. The raw probabilities of events produced by the “model counting” approach are usually different than the observed frequencies. By adjusting the raw probabilistic forecasts based on the observed historical frequencies significant improvements to the skill of the forecasts are achieved.

Finally, possible future development of the Gridded OCF probabilistic forecast system for operational forecasting use in Australia will be discussed.