The Australian Bureau of Meteorology's Gridded OCF (Operational Consensus Forecast) system produces operational forecast guidance for the Australian region. A weighted composite of bias corrected Numerical Weather Prediction (NWP) model output is used to provide forecasts for a number of surface meteorological fields, including 2 m dry-bulb and dew-point temperature, 10 m wind, rainfall, cloud cover and mean sea level pressure.

Several methods for compositing NWP forecasts are examined, including weighted averaging, the probability matched ensemble mean, and mode-like compositing methods. Each method is shown to have particular strengths. For example, the weighted average usually produces the best results for smoothly varying scalar fields, whilst mode-like composites are useful for vector fields such as the 10 m wind.

A one-year verification study of 2 m temperature and 10 m wind shows that the GOCF guidance is more skilful on average than forecasts from any single NWP model. The improved forecast skill has resulted in the GOCF guidance becoming increasingly important for operational weather forecasting within the Bureau of Meteorology.