



Developments in monthly forecasting at the Met Office

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The Met Office Monthly Outlook (TMO) is a commercial product issued every week providing weather outlooks for 1 week and 2 week average periods over the forthcoming month.

Outlooks are generated from the ECMWF 51-member operational monthly forecast ensemble.

Each member of the ECMWF monthly forecast ensemble is run with resolution T159, 40 levels in the vertical, coupled to the hope ocean model through the Oasis model coupler and includes an interactive Wave model. Sea ice is prescribed from climatology.

To take account of the systematic errors in the forecast system, the forecast is expressed relative to a background climate that constitutes 5-member ensembles for 12 years up to the current forecast (60 members). This hindcasts are used to derive tercile and quintile boundaries for the forecast variables. The tercile / quintile populations are derived from the real-time forecast ensemble.

The UK monthly forecast is presented in a five category probability density function (PDF) in 10 UK regions. The global product is presented in tercile probability.

The UK outlook is verified against regional averaged observations and the tercile probability predictions are verified against ECMWF short range forecasts.

Skill of the monthly predictions are presented according to the recommended standard verification system for long range forecasts.