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Title: Subseasonal Forecasting at the Australian Bureau of Meteorology

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Abstract:

The Bureau of Meteorology is currently engaged in developing the systems, science and associated products that could form a subseasonal forecast service for Australia. This development has been stimulated by increasing demand for subseasonal forecasts in Australia, particularly from the agricultural and water management communities. The dynamical subseasonal (multi-week) climate forecasts are based on modifications to the coupled-model seasonal forecast system, POAMA. POAMA shows promising skill in forecasting subseasonal rainfall and temperature over Australia, and we now have improved understanding of the large-scale climate drivers that affect forecast skill. POAMA has been enhanced to better suit subseasonal forecasting and the resulting forecasts are more skilful and reliable. We will provide an overview of this research and development, specifically covering a) the coupled model forecast system, including data assimilation and ensemble generation, b) forecast performance based on a 30-year hindcast set 1981-2010, c) experimental real-time forecast products, and d) plans for ongoing development of the system.

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