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User applications of the UK Met Office seasonal forecasting system GloSea4

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Availability of probabilistic information of weather anomalies (e.g. temperature and precipitation) at the long-range (intra-seasonal to inter-annual timescales) can aid the decision process in a wide range of socio-economic applications. A risk-based approach should be taken in such decision-making processes because of the inherent uncertainty in long-range forecasts. For example, the observed anomaly will not always fall in the most likely forecast category and therefore it is advisable to understand the user exposure to different outcomes - and the timescales for decision making - prior to using the forecast.

Here we present results from the UK Met Office's new seasonal forecasting system GloSea4. This is a global ensemble prediction system using initialised coupled ocean-atmosphere-sea ice-land surface model integrations. We show examples of general and tailored forecasting products (e.g. tropical cyclones) based on GloSea4, and use of skill measures to aid decisions based on these forecasts. We will outline future applications of GloSea4, specifically for regional use over Africa.