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Dynamical seasonal forecasting of tropical storms

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The skill of seven coupled ocean-atmosphere models from DEMETER to predict the frequency of tropical storms has been assessed using a procedure for tracking model tropical storms. The tropical storm tracker takes account of the difference of atmospheric horizontal resolution between the different models. Results indicate that the multi-model ensemble has skill in predicting the interannual variability of tropical storms over most ocean basins. Attribute diagrams of the multi-model probabilistic forecasts of tropical storm frequency from 1958 to 2001 indicate that the forecasts some reliability over several ocean basins, including the Atlantic. This result gives some confidence in using this method for assessing the impact of global warming on the frequency of tropical storms. This method is presented used to produce operational seasonal forecasts of tropical storm frequency at ECMWF and will be applied to the EUROSIP multi-model operational seasonal forecasts.