



## **Predictability of the Arctic Oscillation Associated With Stratospheric Influences in Operational Forecasts**

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Most current forecast systems lack an adequate stratospheric component to faithfully simulate the dynamical coupling between the stratosphere and the troposphere. This may lead those systems to not realize the full potential of short-term climate predictability related to stratospheric coupling. Here, we investigate this issue by analyzing how much practical forecast skill is associated with stratospheric influences in the current generation of operational models. In particular, we study long histories of sub-seasonal reforecasts generated by the NCEP MRF model and determine how much useful forecast skill of the surface AO is associated with dynamical coupling with the stratosphere. In order to find out how important a good representation of the stratosphere is for achieving such skill, we compare the results with those generated by a modern stratosphere resolving climate model.