

SESSION: (C3) Time scale interaction (includes teleconnections)

(C3-03)

Predictability of blocking and tropical cyclone activities? -- An assessment with a large ensemble simulation --

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Potential seasonal predictability is investigated by a large ensemble experiment with an atmospheric general circulation model (AGCM) with prescribed sea surface temperature (SST) and sea ice (the database for policy decision making for future climate change; d4PDF; Mizuta et al. 2017). We use the present-day component of the data set which consists of 100 ensemble members for observed 1961-2010 boundary conditions. The large ensemble enables us to explore potential seasonal predictability of not only seasonal averages, but also modulation of day-to-day weather disturbances. Here we take up midlatitude blocking and tropical cyclone activities to see if there is useful seasonal predictability on the measures of their activities. Significant forced signals are found for North Pacific blocking and northwestern tropical cyclone activities in the data set, and they do show correlation with observations.