



Supplement of

Evaluation of a high-resolution regional climate simulation for surface and hub-height wind climatology over North America

Kyle Peco et al.

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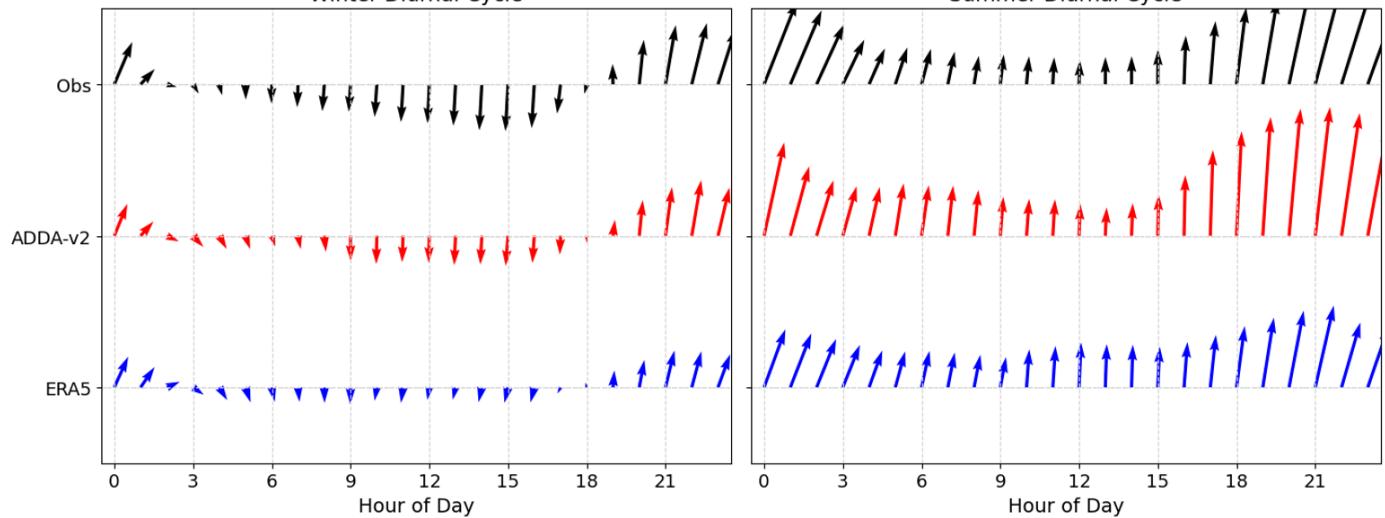
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(a)

Los Angeles Pier J, CA (2014-2020) 31m Diurnal Wind Directions

Winter Diurnal Cycle

Summer Diurnal Cycle

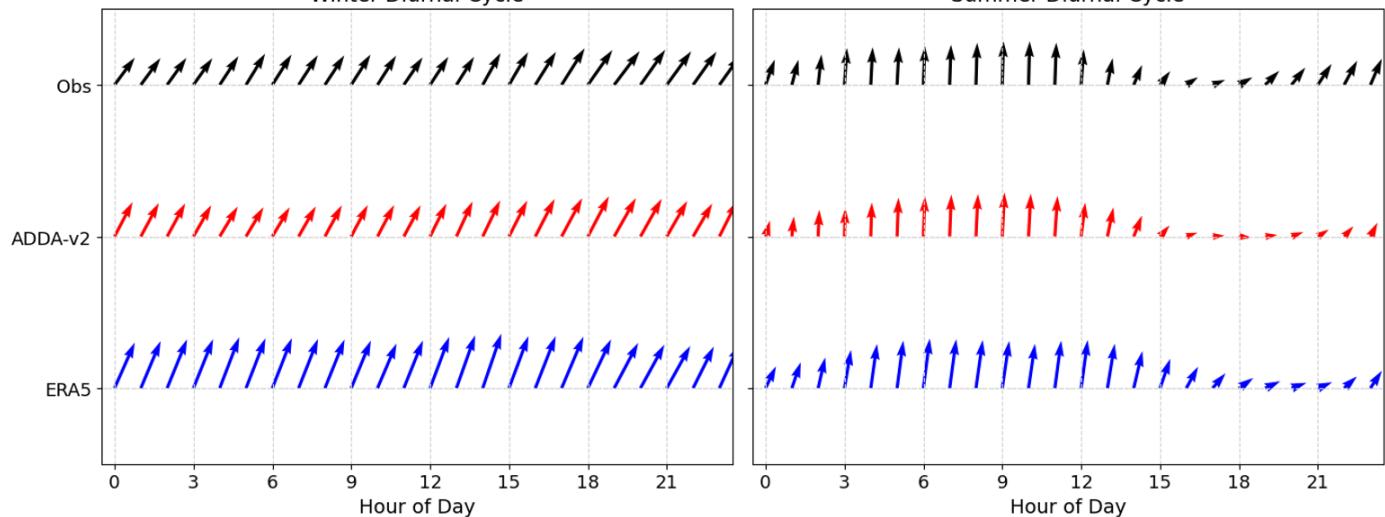


(b)

Dunkirk, NY (2001-2020) 20m Diurnal Wind Directions

Winter Diurnal Cycle

Summer Diurnal Cycle

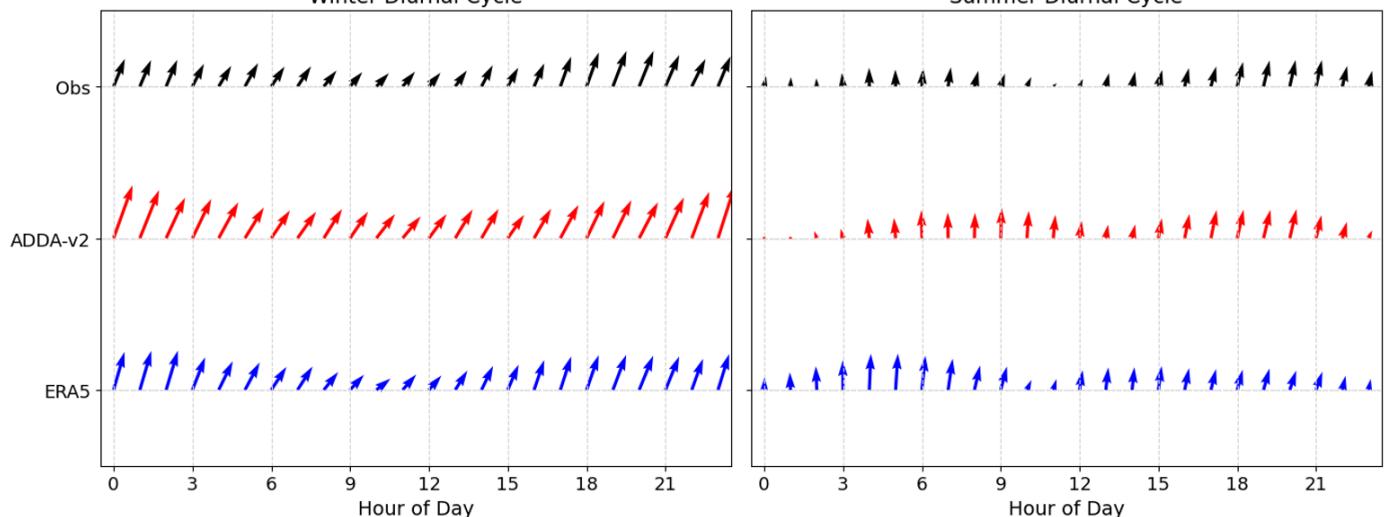


(c)

Argonne, IL (2007-2013) 60m Diurnal Wind Directions

Winter Diurnal Cycle

Summer Diurnal Cycle



(d)

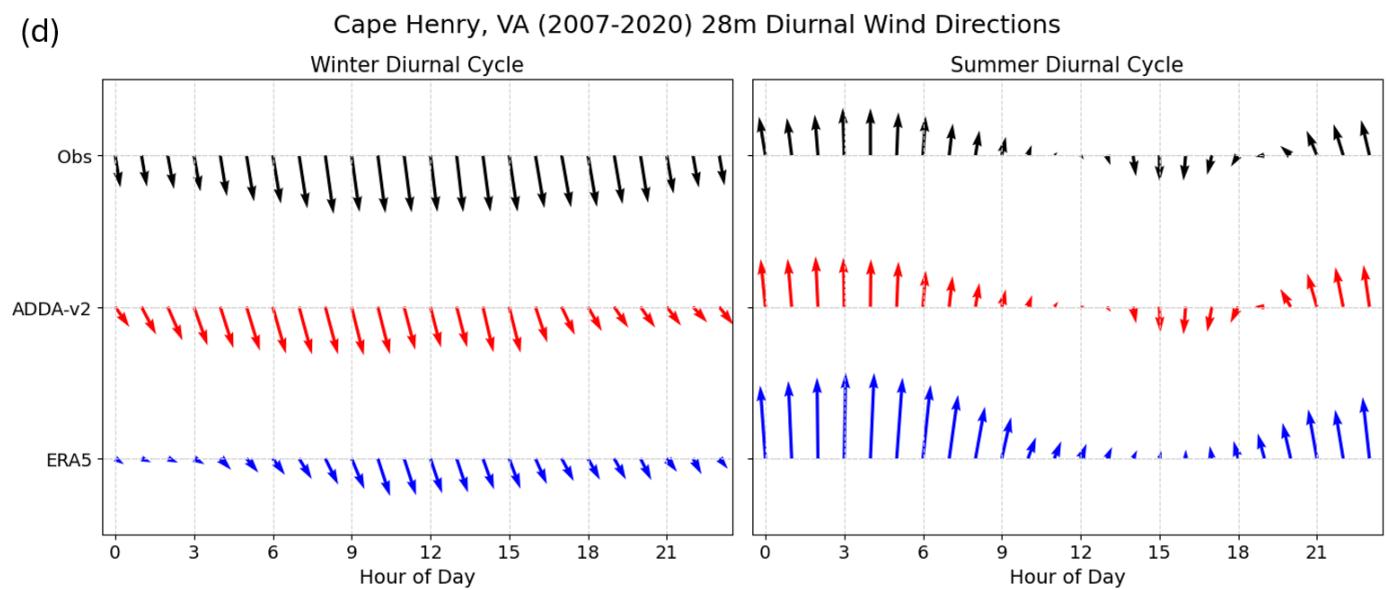


Figure S1: Averaged diurnal wind directions for Los Angeles Pier J, California, Dunkirk, New York, Argonne, Illinois, and Cape Henry, Virginia. The arrow is pointing towards the direction in which the wind is blowing from.

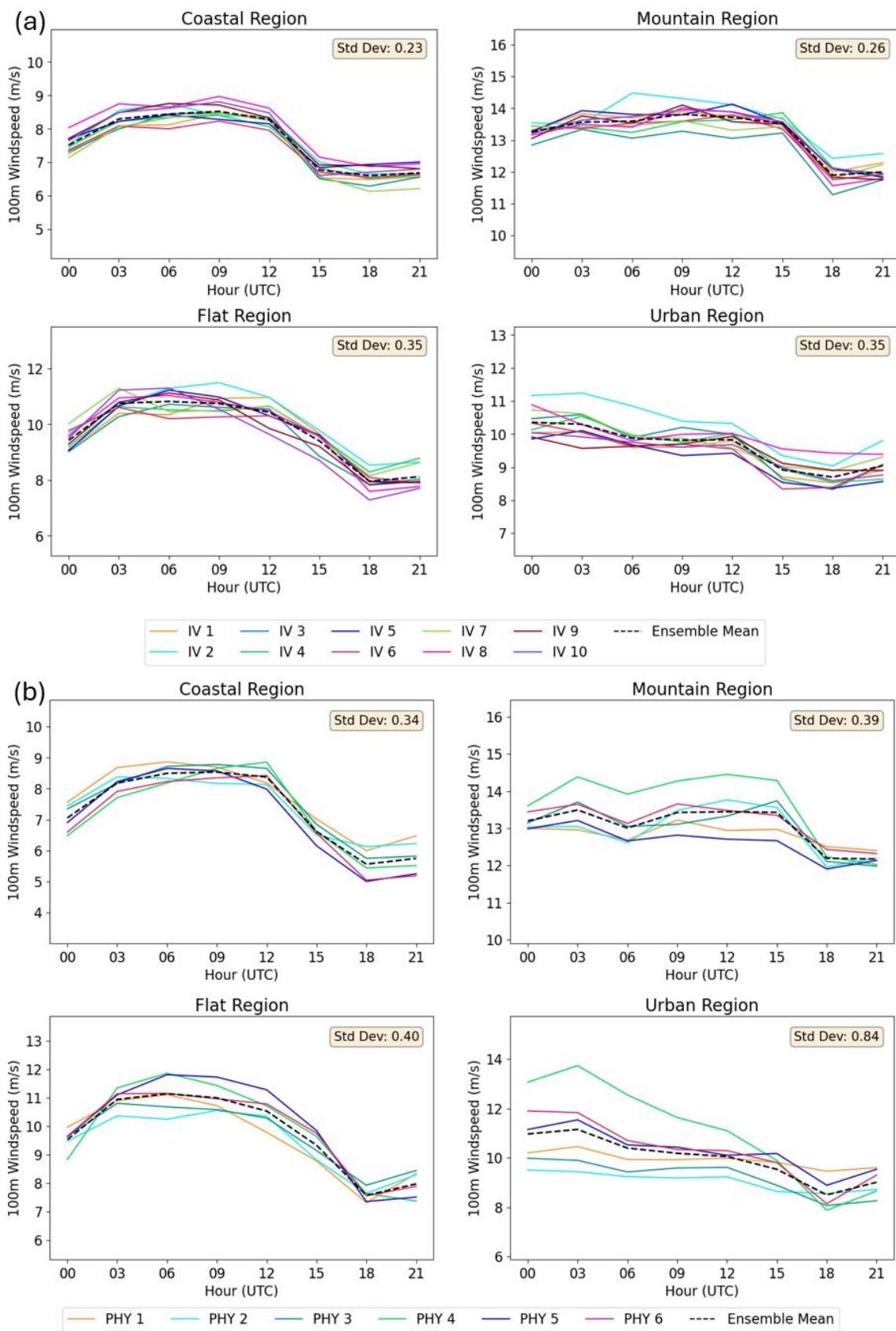


Figure S2: January averaged diurnal cycles for 100m windspeeds for four representative geographic regions: coastal, mountainous, flat, and urban. Each of the 10 internal variability ensembles were plotted (a), and each of the 6 structure uncertainty ensembles were plotted (b), alongside their respective ensemble means. Standard deviations are displayed and indicate the degree of spread between the ensembles.

Interannual Variability

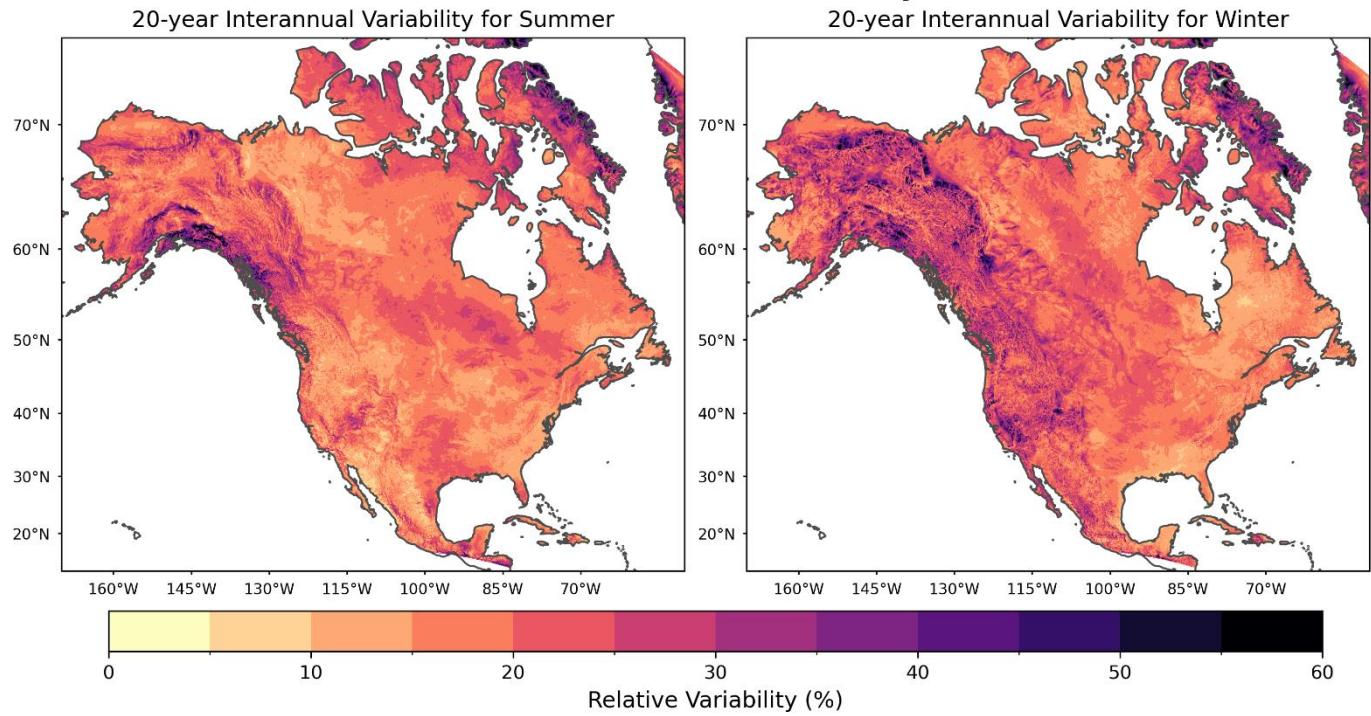


Figure S3: Relative interannual variability for summer (JJA) and winter (DJF) 100m wind speeds. For a description of the relative interannual variability quantification, see Section 2.5.