

Assessment of NA-CORDEX regional climate models, reanalysis, and in-situ gridded-observational against U.S. Climate Reference Network datasets

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Figure S1: Box-and-whisker plots showing the seasonal daily mean temperature bias (K) for each of the selected reanalysis (NARR, ERAI, ERA5 and MERRA2), gridded observational products (Livneh, CPC, Daymet and PRISM), and individual NA-CORDEX models listed in Table 2 (at 50km, 25km and 12.5km resolutions) in each study subregion with respect to USCRN for summer (JJA) and winter (DJF) during the period 2006–2014. The median is indicated with a black line while the lower hinge of each box is Q1 quartile (25th), and the upper hinge for Q3 quartile (75th). The upper bar represents maximal value whereas the lower bar represents minimal value. The outliers are not shown in the plot. The subregional daily mean distribution of each simulation is obtained by spatially averaging all values within the subregion highlighted in Figure 1.

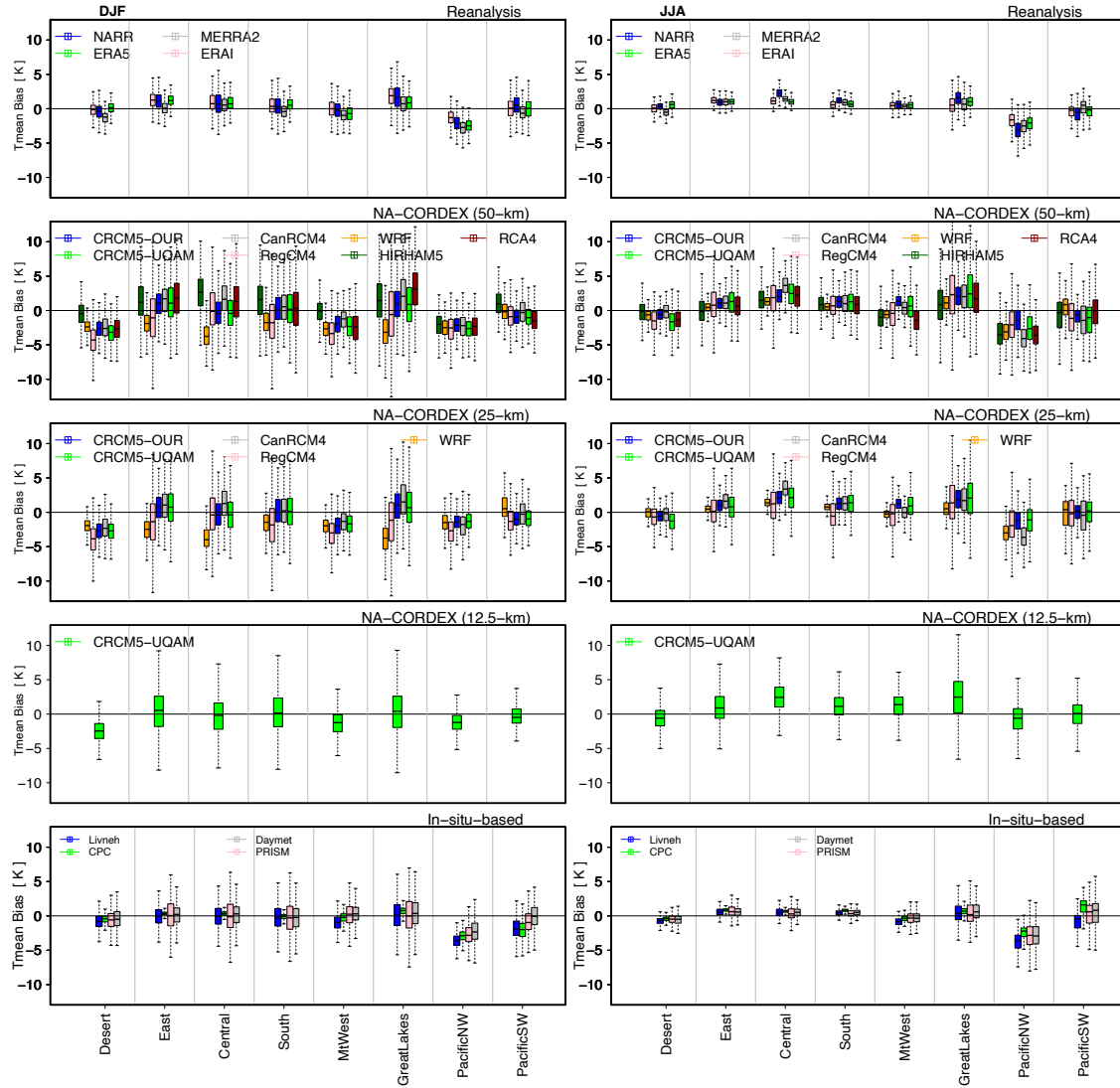


Figure S2: As Figure S1 but for the daily mean precipitation bias (mm/day)

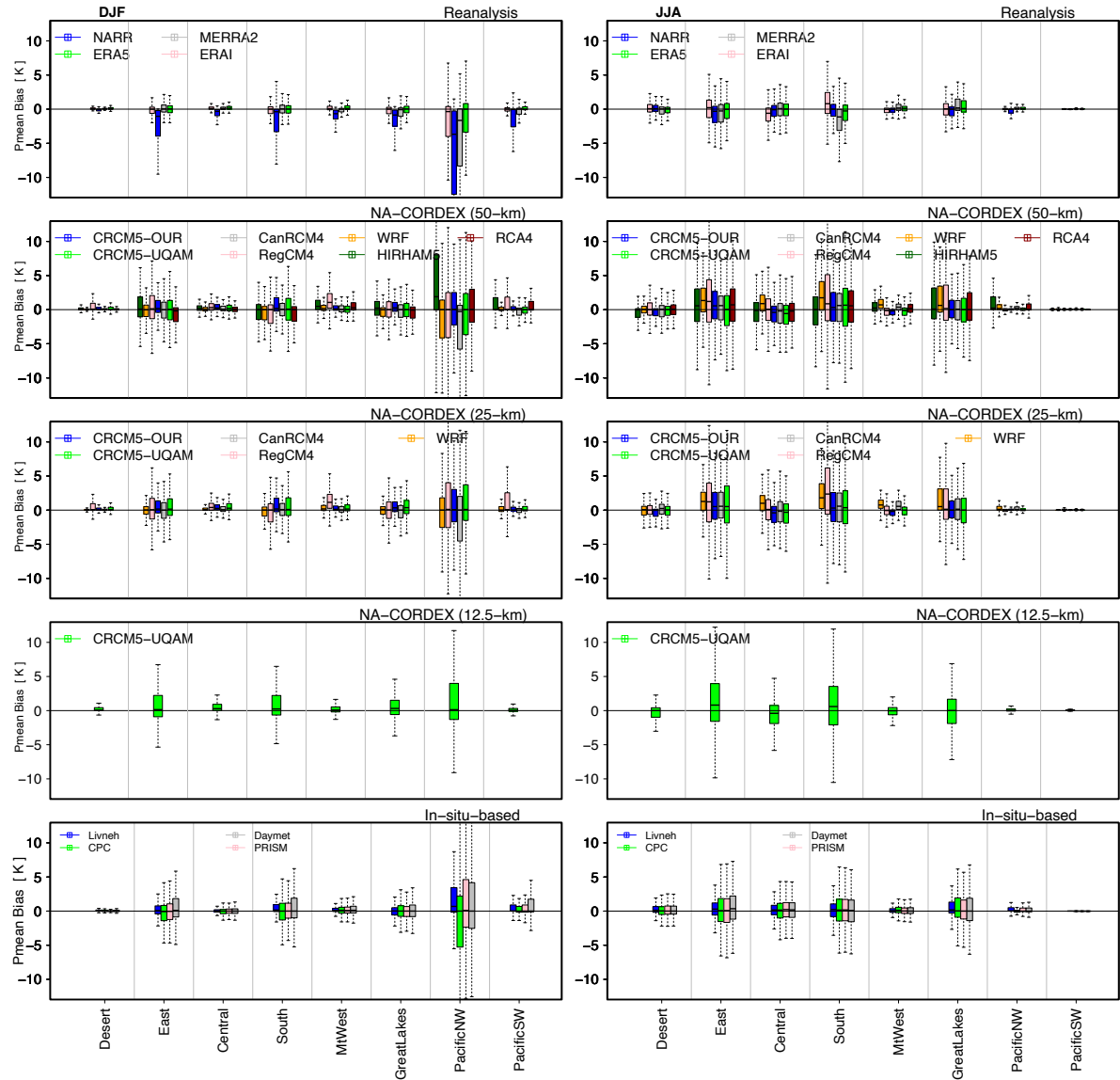


Figure S3: Seasonal monthly mean rainfall distribution (mm/day) over the different subregions obtained from the individual models at 0.44° (blue lines), at 0.22° (red lines) and at 0.11° (solid dark-red line), for each of the reanalysis (NARR, ERAI, ERA5, and MERRA-2) (green-lines), the gridded-observational products (Livneh, CPC, Daymet, PRISM) (in yellow lines) against USCRN (solid black line) for the period 2006–2014.

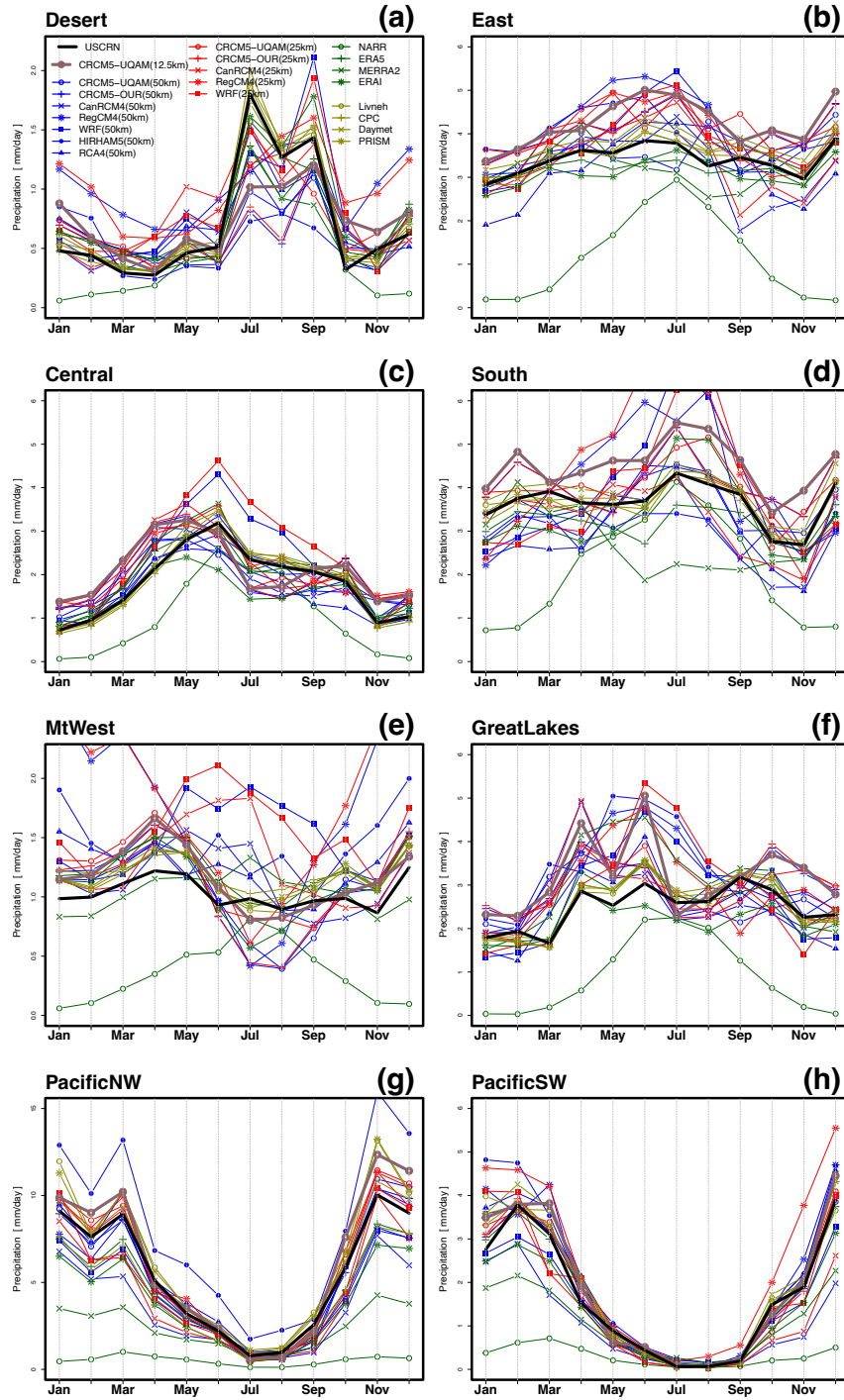


Figure S4: As Figure S3 for the seasonal monthly mean temperature distribution (K)

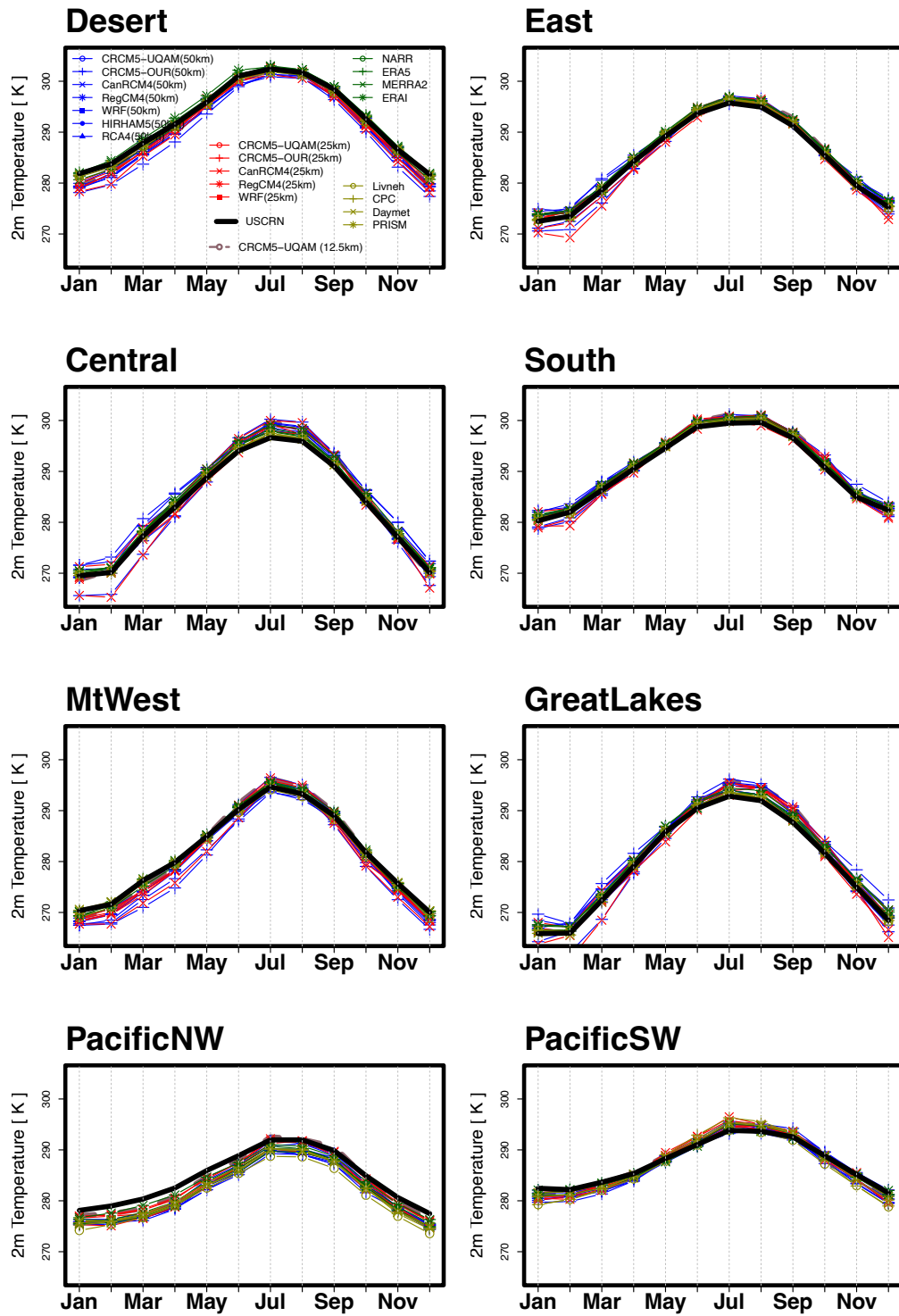


Figure S5: As Figure 7 as for seasonal monthly mean temperature distribution (K) over the different subregions.

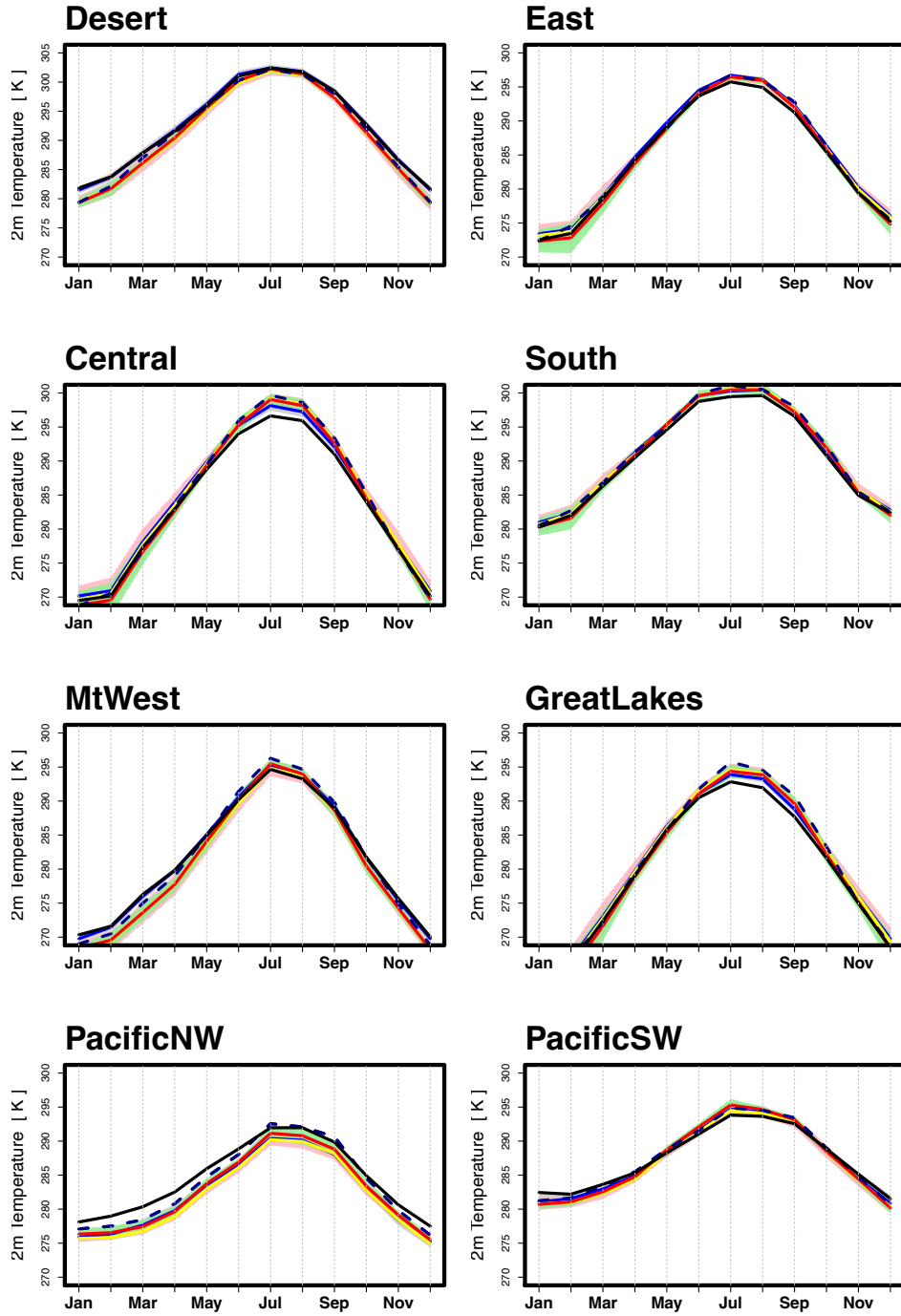


Figure S6: As figure 8 but for temperature seasonal cycle in all subregions in summer

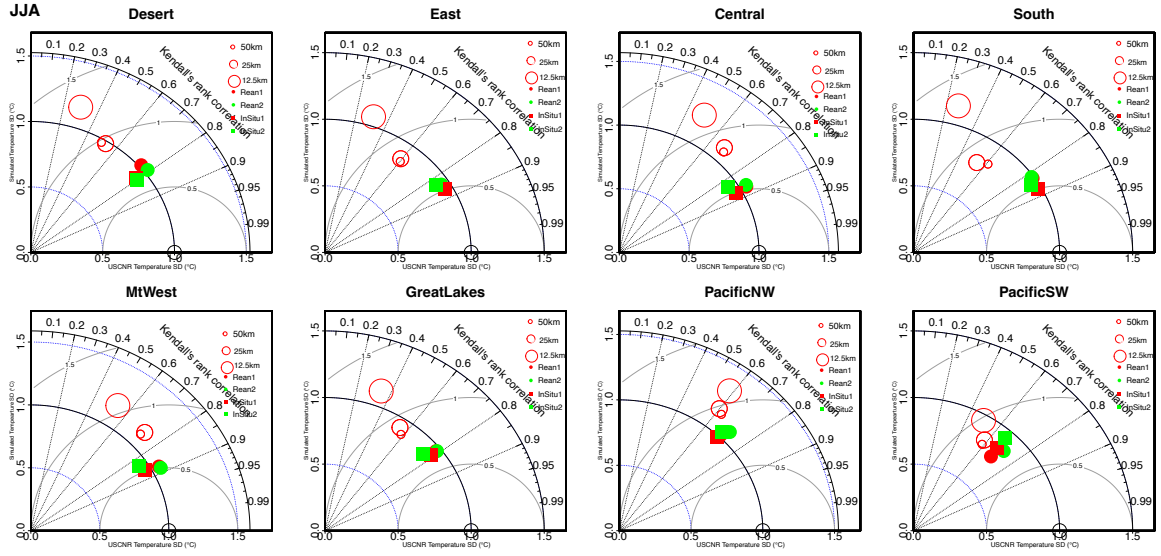


Figure S7: As figure S6 but for temperature seasonal cycle in all subregions in winter

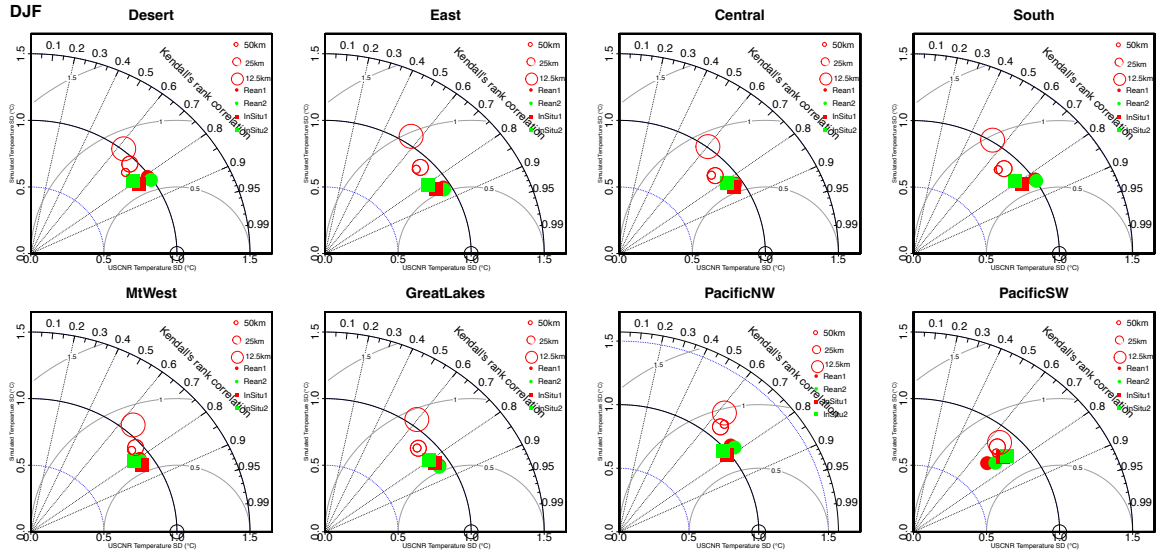


Figure S8: As figure S6 but for precipitation seasonal cycle in all subregions in summer

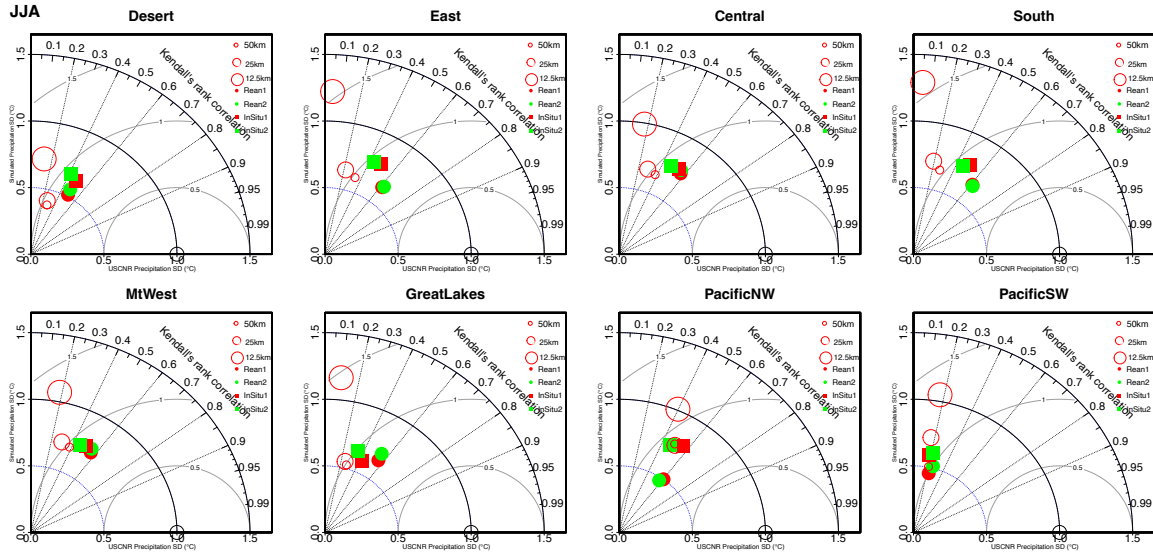


Figure S9: As figure S6 but for precipitation seasonal cycle in all subregions in winter

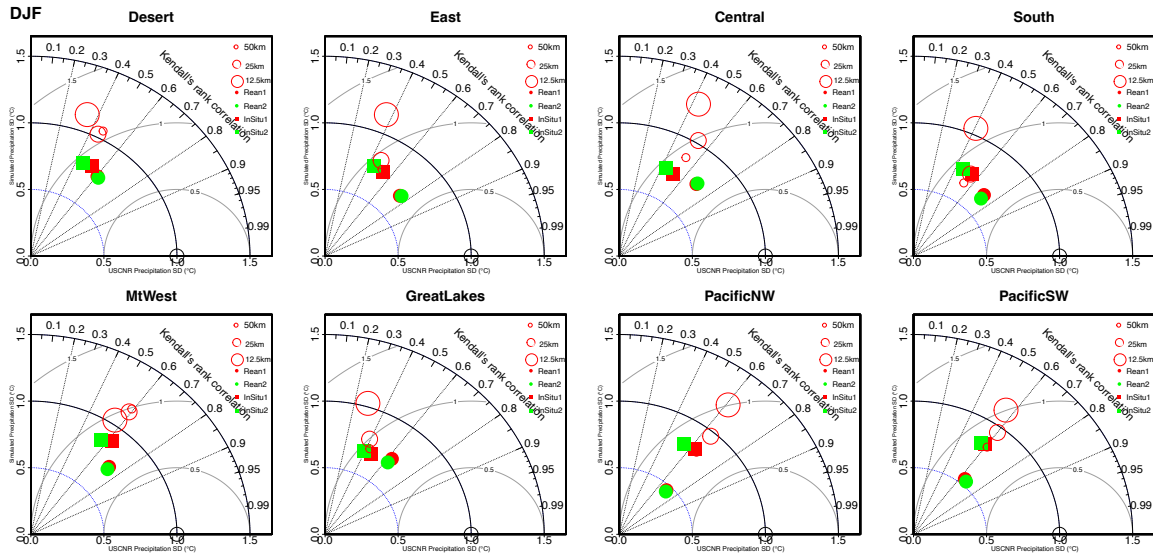


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