



Supplement of

Assessment of WRF (v 4.2.1) dynamically downscaled precipitation on subdaily and daily timescales over CONUS

Abhishekh Kumar Srivastava et al.

Correspondence to: Abhishekh Kumar Srivastava (asrivas@ucdavis.edu)

The copyright of individual parts of the supplement might differ from the article licence.

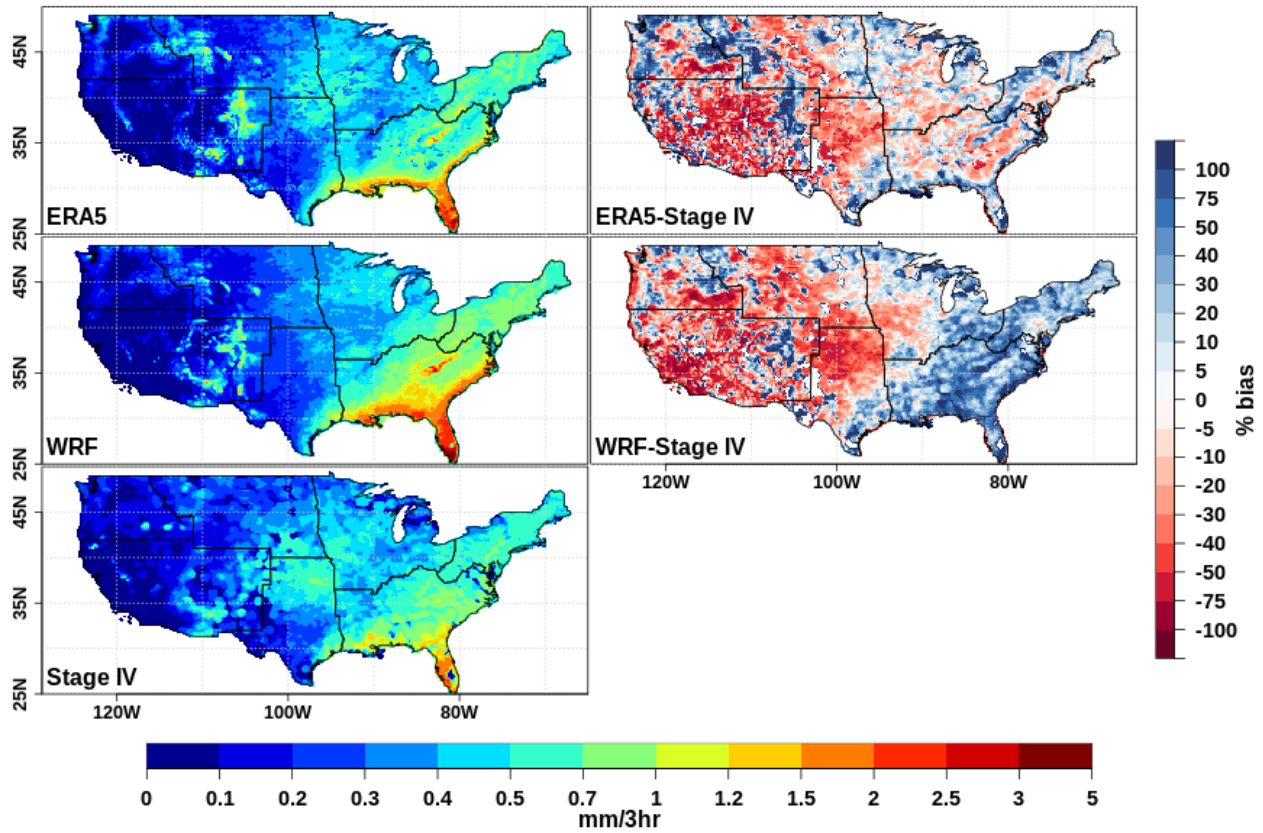


Figure S1: Magnitude of the diurnal precipitation peak (MDPP) in JJA estimated over 2003-2019. The left column shows the magnitude in each dataset and uses the color scale along the bottom edge of the figure. The right column shows % biases $[100 \times (\text{data} - \text{Stage IV}) / \text{Stage IV}]$ in the magnitude of the precipitation peak and uses the color scale along the right edge of the figure. Units: mm/3hr.

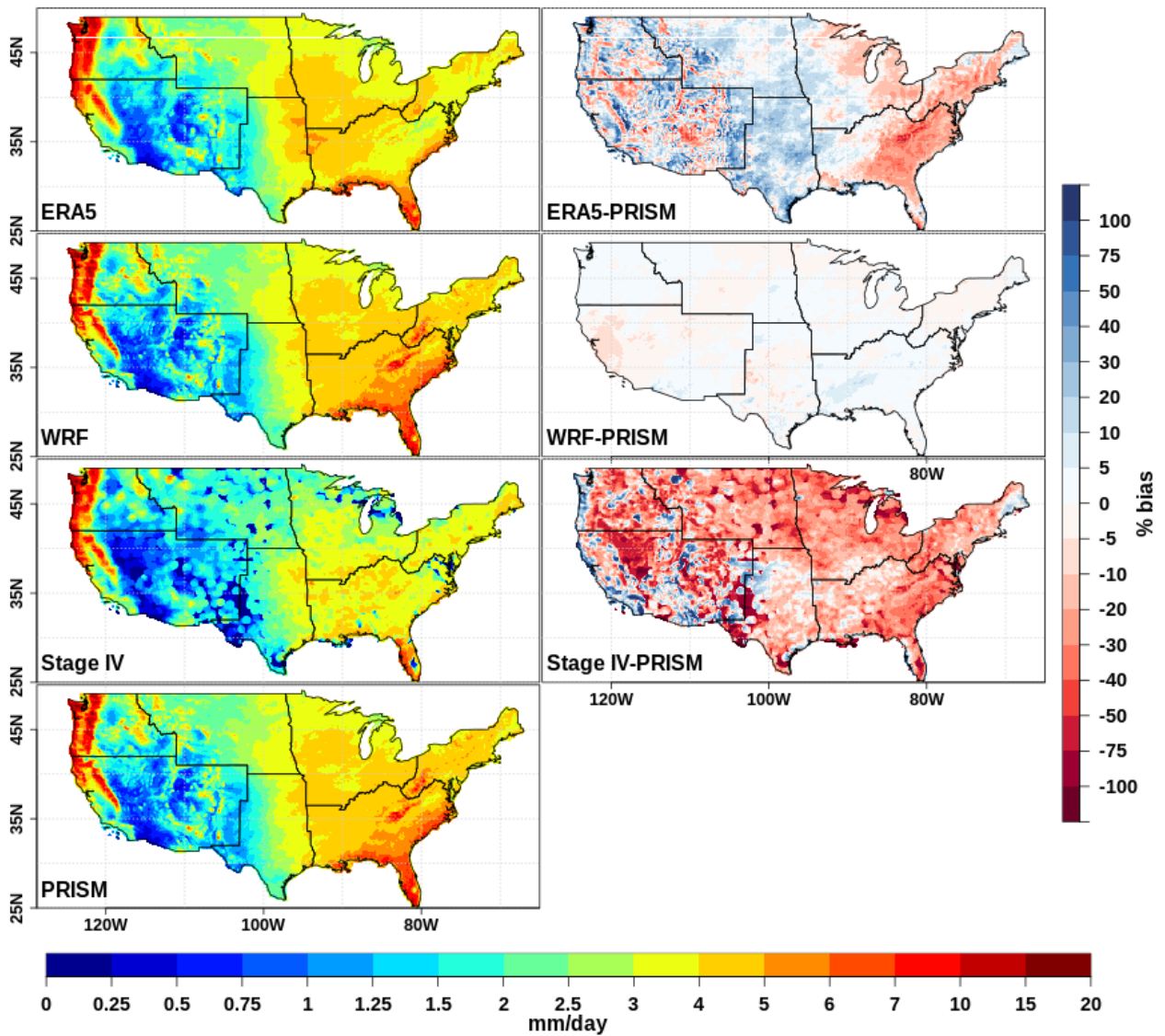


Figure S2: Magnitude of the monthly average precipitation peak (MMPP) estimated over 2001-2020 (2003-2019 for Stage IV). The left column shows the magnitude of the peak in each dataset and uses the color scale along the bottom edge of the figure. The right column shows % biases $[100 \times (\text{data} - \text{PRISM}) / \text{PRISM}]$ in the magnitude and uses the color scale along the right edge of the figure. Units: mm/day.

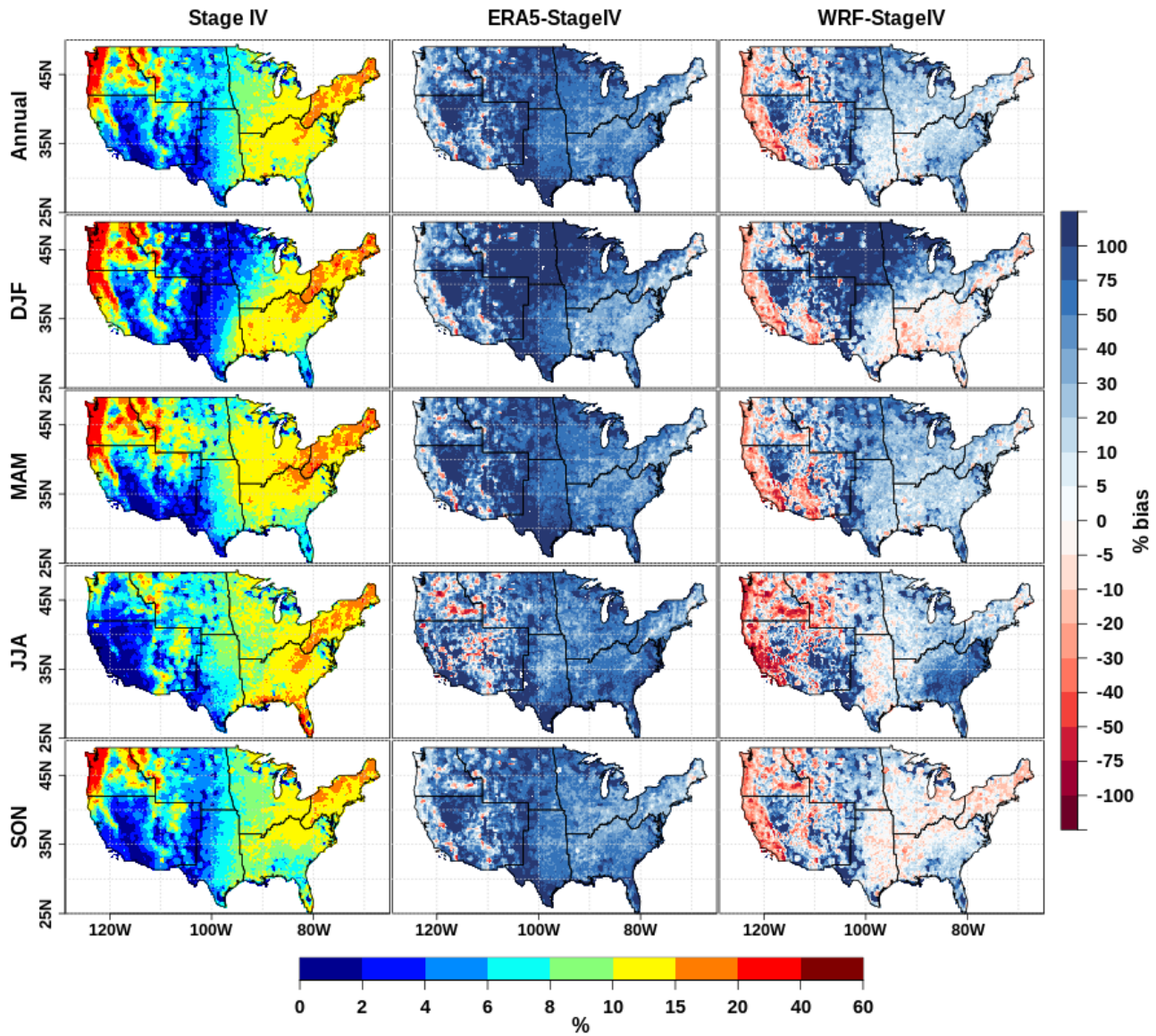


Figure S3: 3-hr precipitation frequency (PF3h) estimated over 2003-2019. The left column shows the frequency in Stage IV data and uses the color scale along the bottom of the figure. The right two columns show % biases $[100 \times (\text{data} - \text{Stage IV}) / \text{Stage IV}]$ in the precipitation frequency and use the color scale along the right edge of the figure. Units: %.

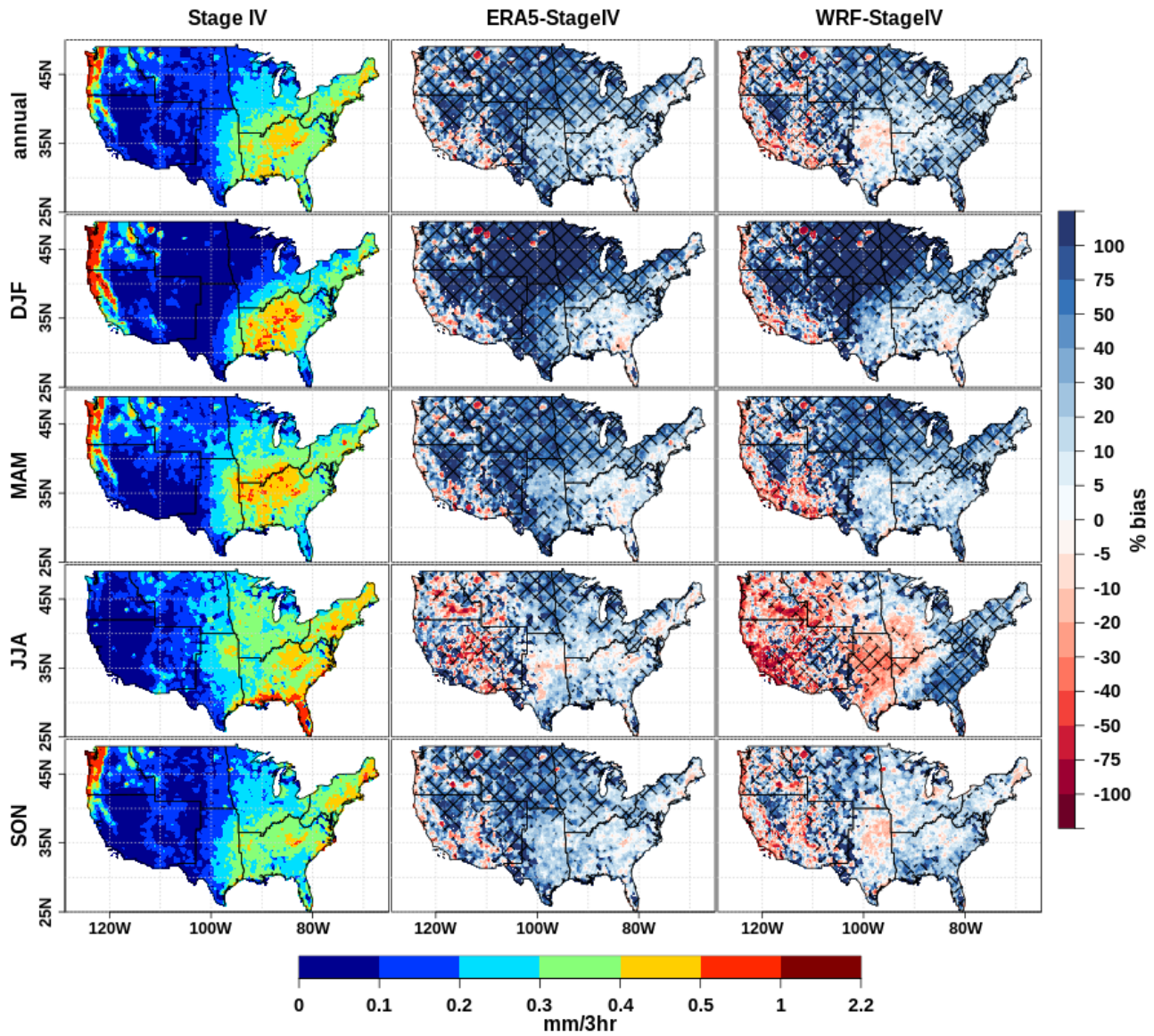


Figure S4: 3-hr precipitation mean (P_{mean3h}) estimated over 2003-2019. The left column shows the mean in Stage IV data and uses the color scale along the bottom of the figure. The right two columns show % differences $[100 \times (\text{data} - \text{Stage IV}) / \text{Stage IV}]$ in the mean and use the color scale along the right edge of the figure. Hatching denotes grid points where the differences are found to be significant at the 5% significance level based upon t-test. Units: mm/3hr.

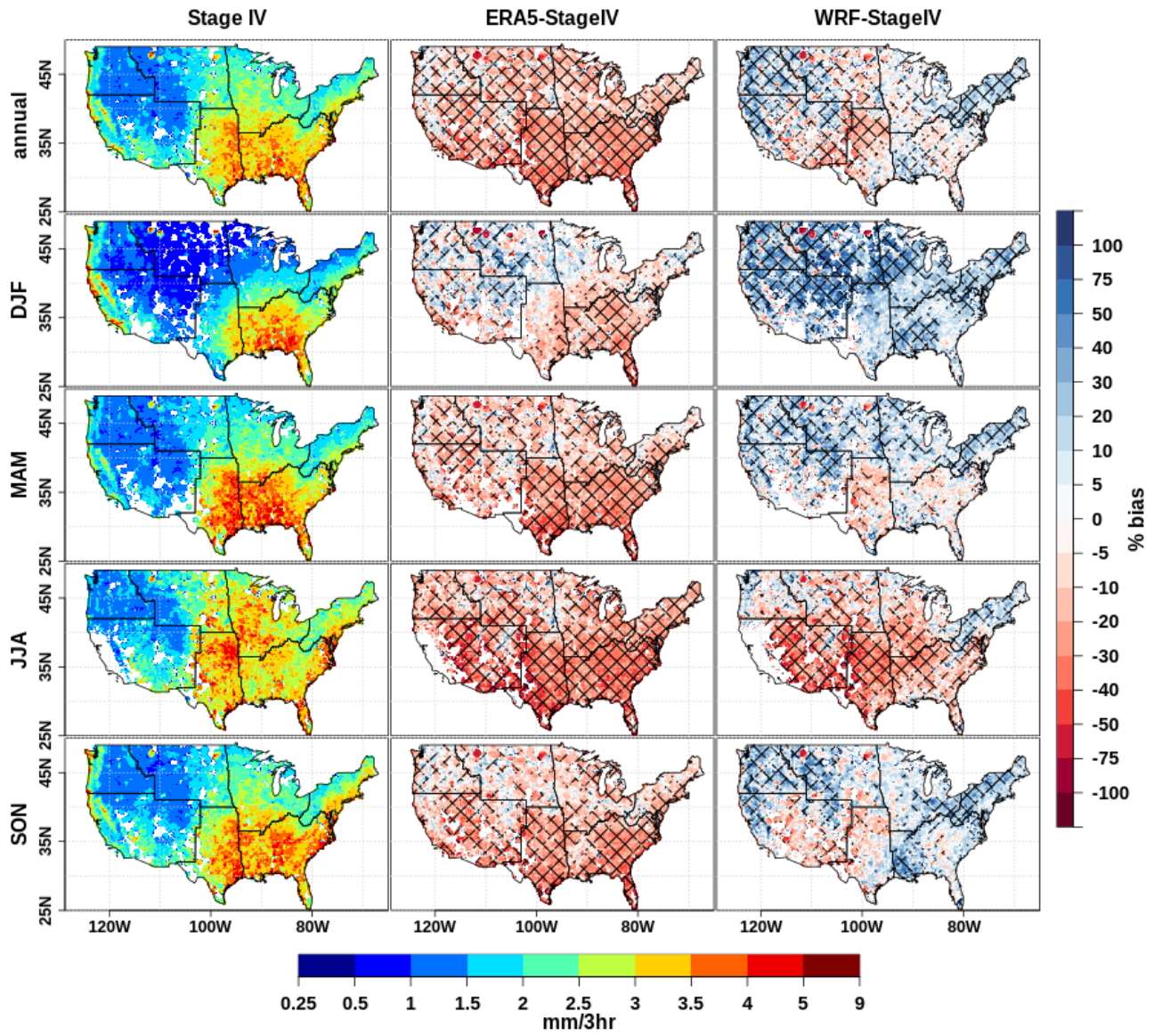


Figure S5: Same as Fig. S4 but for mean 3-hr precipitation greater than 0.25mm (S3hII).

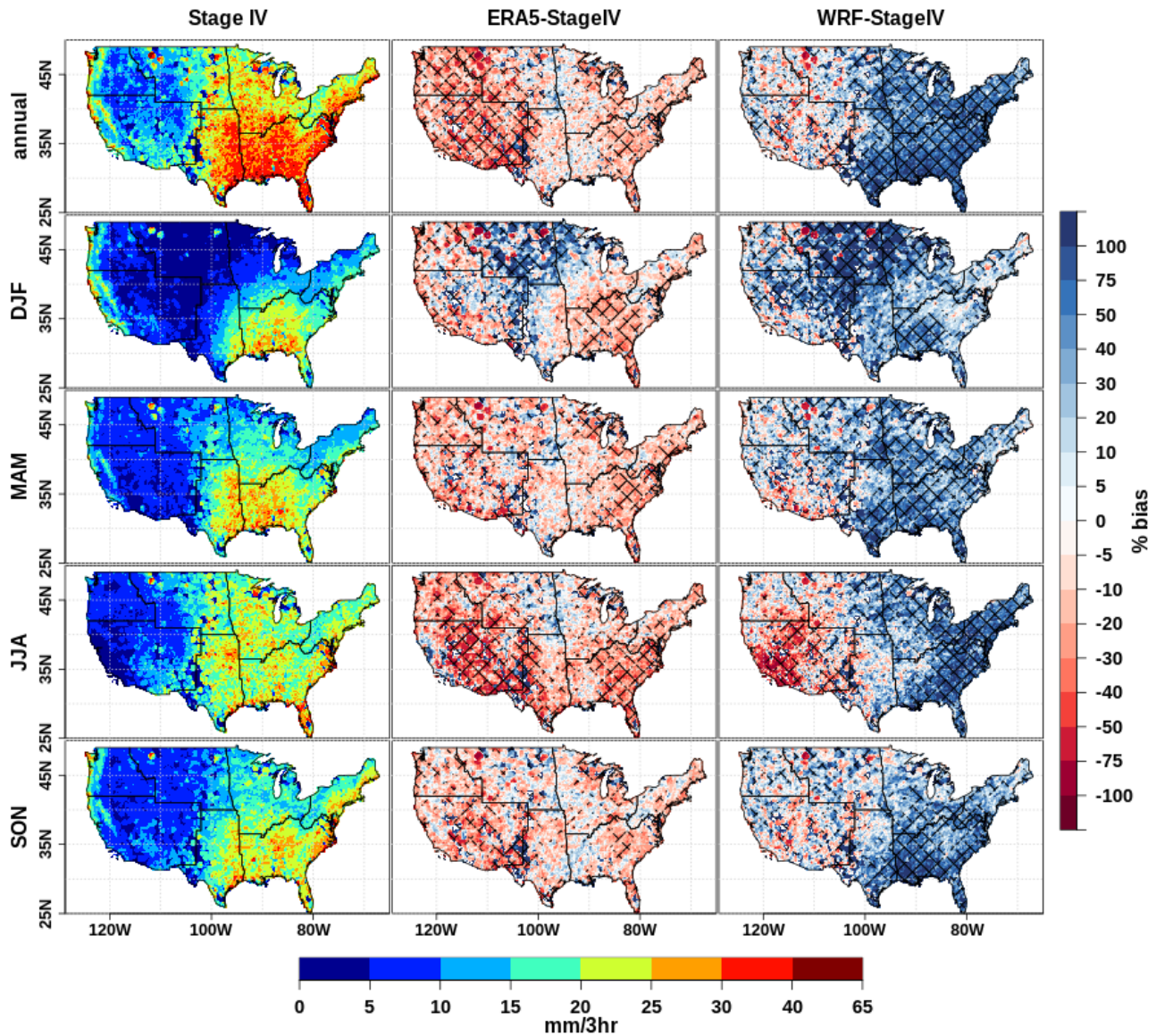


Figure S6: 3-hr precipitation maximum (Rx3h) estimated over 2003-2019. The left column shows the mean in Stage IV data and uses the color scale along the bottom of the figure. The right two columns show % differences $[100 \times (\text{data} - \text{Stage IV}) / \text{Stage IV}]$ in the mean and use the color scale along the right edge of the figure. Hatching denotes grid points where the differences are found to be significant at the 5% significance level based upon t-test. Units: mm/3hr.

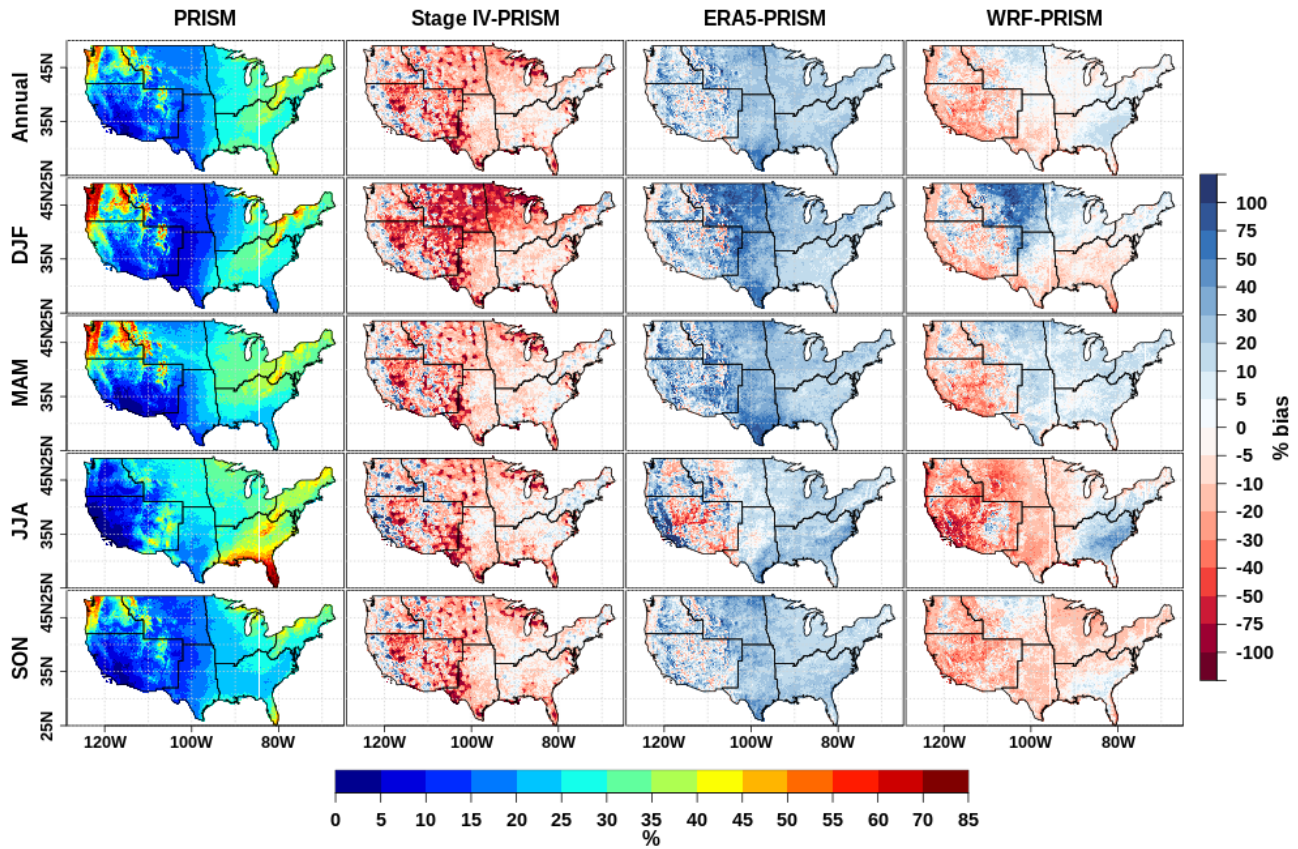


Figure S7: As Fig. S3 but for % biases $[100 \times (\text{data} - \text{PRISM}) / \text{PRISM}]$ in 24-hr precipitation frequency (PF24h) estimated over 2001-2020. Biases in Stage IV against PRISM are estimated over the period 2003-2019. Units: %

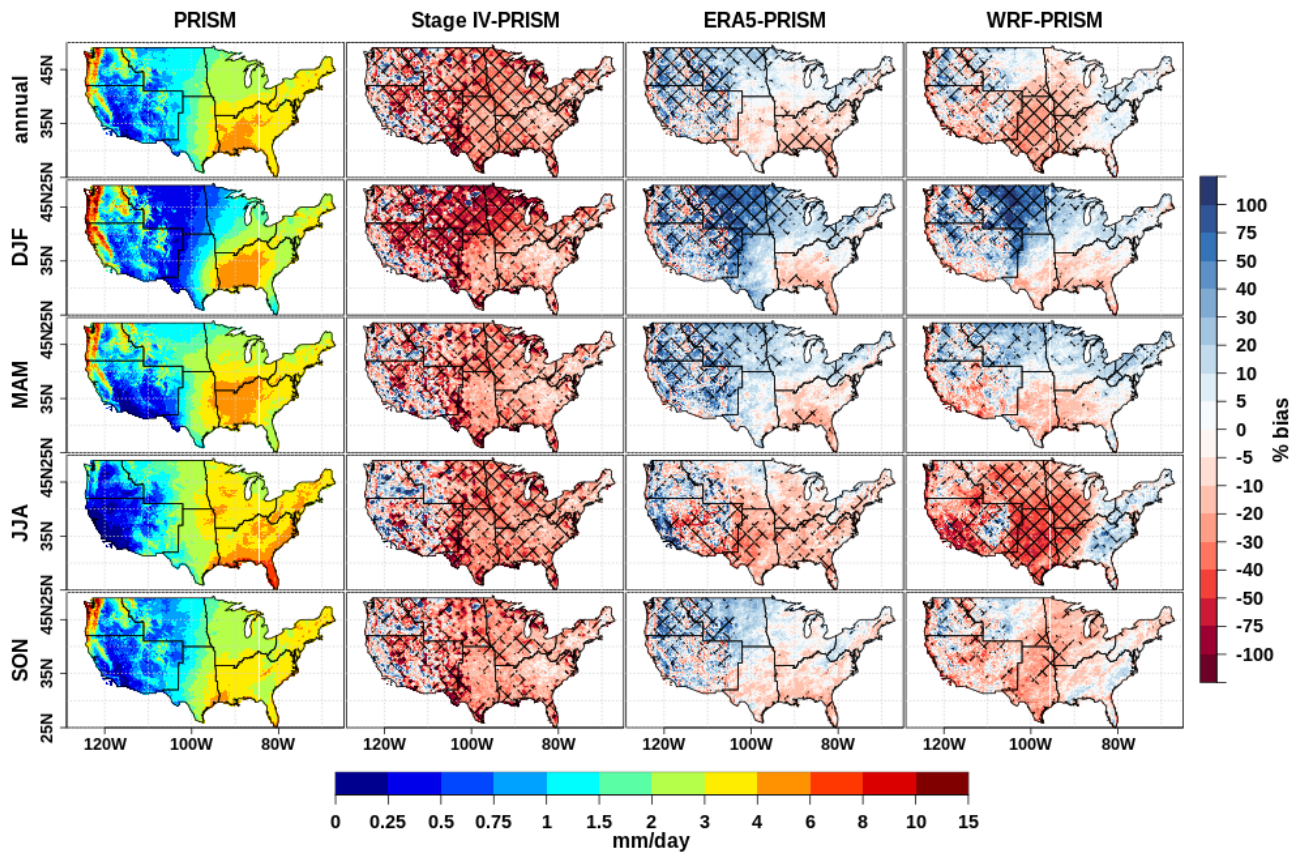


Figure S8: As Fig. S4 but for % biases $[100 \times (\text{data} - \text{PRISM}) / \text{PRISM}]$ in 24-hr precipitation mean (Pmean24h) estimated over 2001-2020. Biases in Stage IV against PRISM are estimated over the period 2003-2019. Units: mm/day

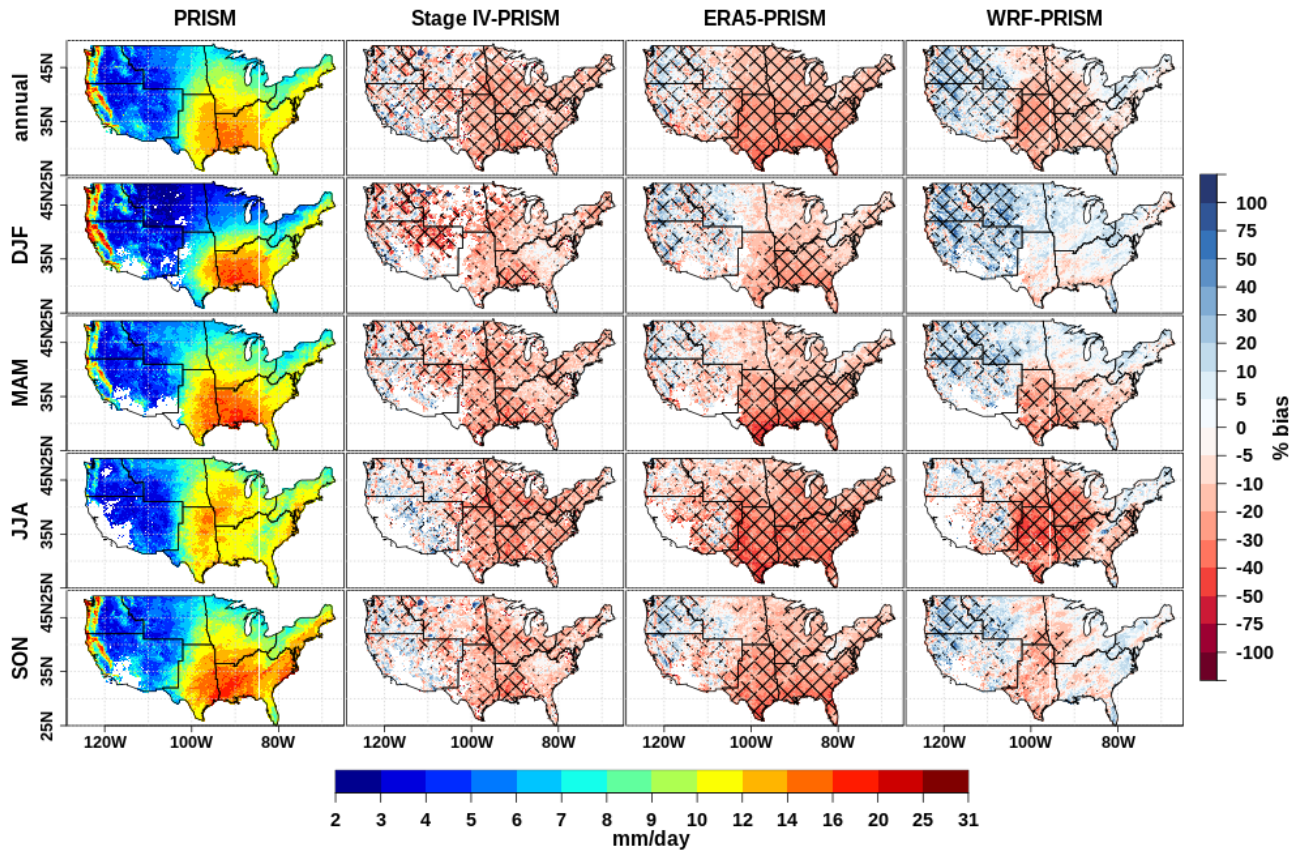


Figure S9: Same as Fig. S8 but for mean 24-hr precipitation greater than 1mm (SDII).

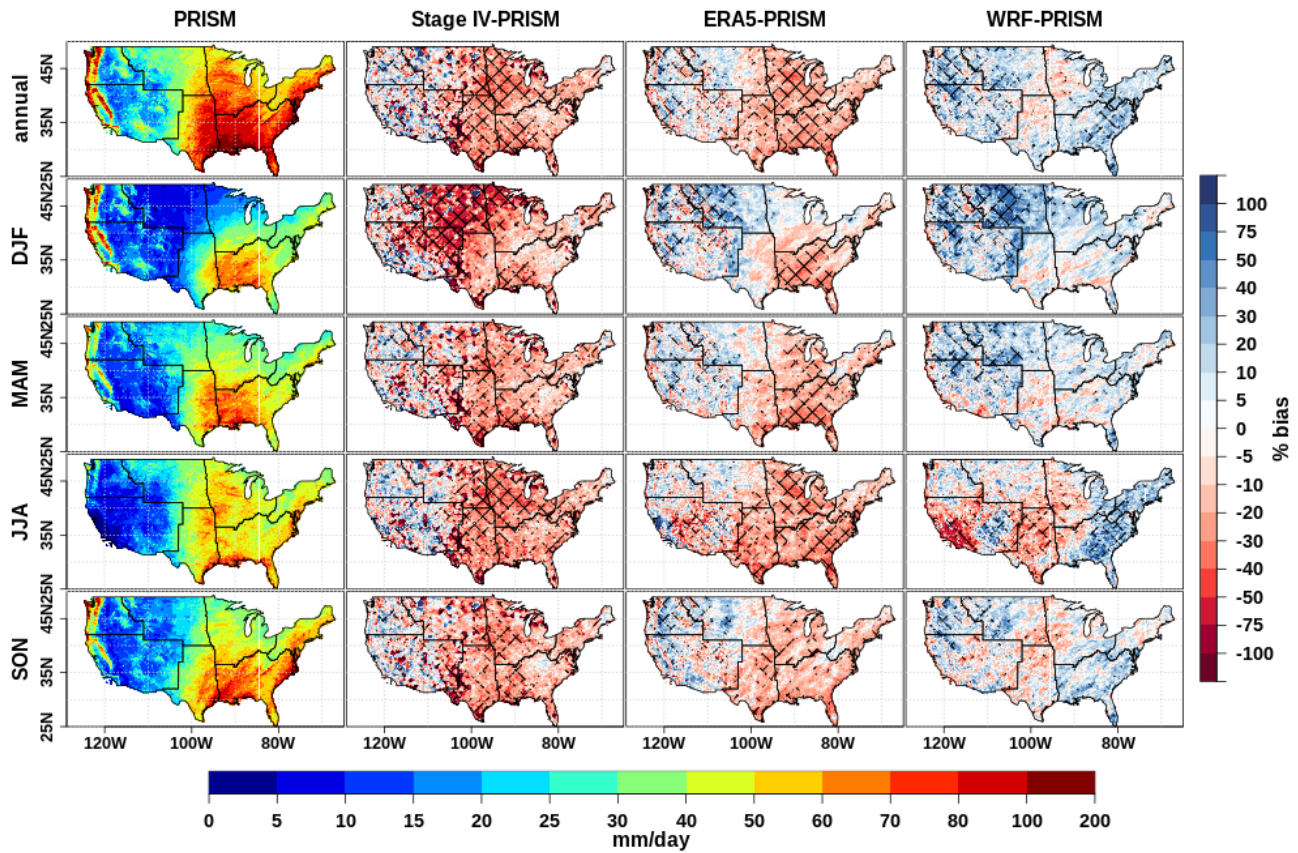


Figure S10: As Fig. S6 but for % biases $[100 \times (\text{data} - \text{PRISM}) / \text{PRISM}]$ in 24-hr precipitation maximum (Rx1day) estimated over 2001-2020. Biases in Stage IV against PRISM are estimated over the period 2003-2019. Units: mm/day.