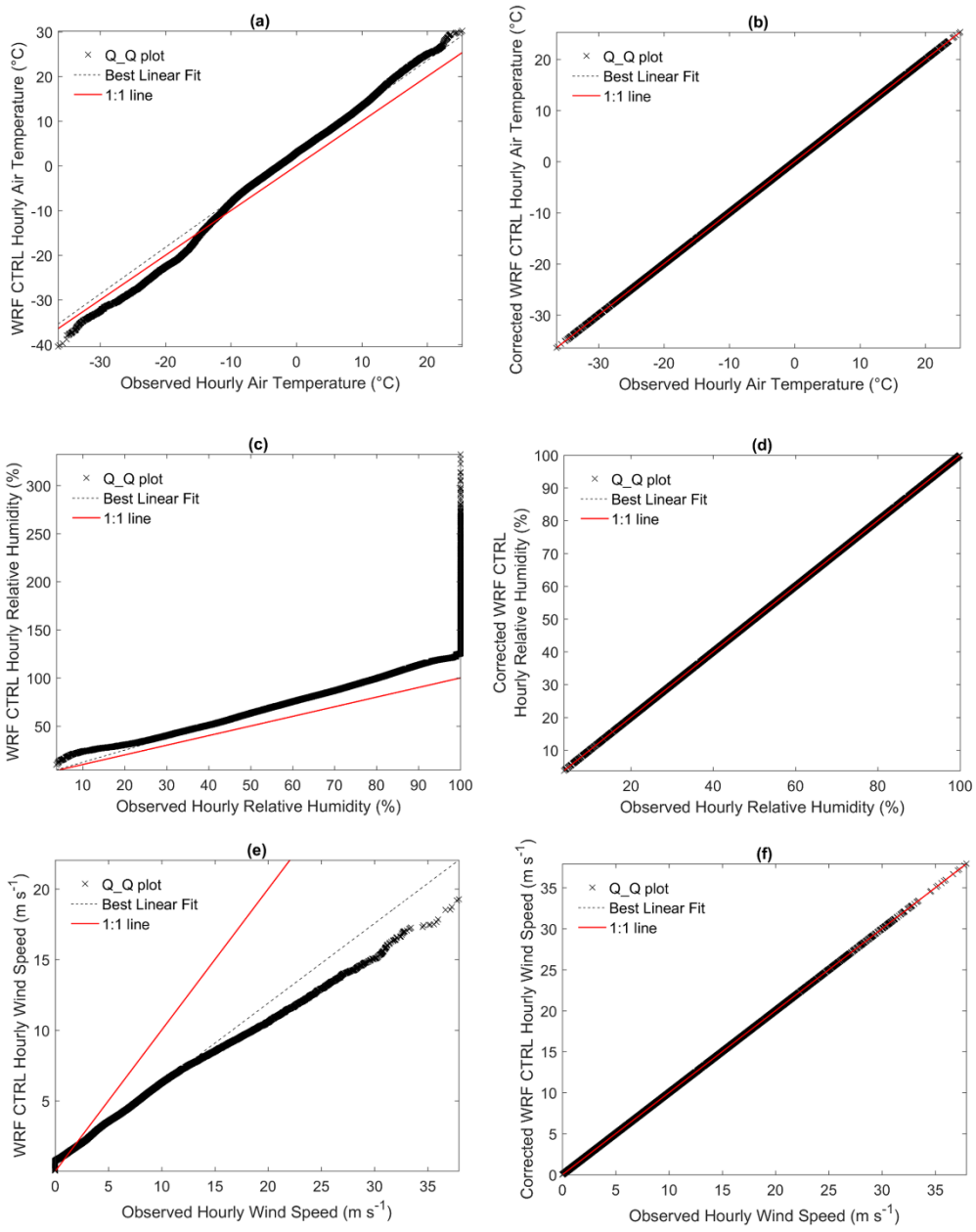

Figure S1. Quantile-quantile plots of observations and WRF CTRL outputs for Centennial Ridge station in MCRB: (a) WRF CTRL and observed air temperature, (b) corrected WRF CTRL and observed air temperature, (c) WRF CTRL and observed relative humidity (d) corrected WRF CTRL and observed relative humidity, (e) WRF CTRL and observed wind speed (f) corrected WRF CTRL and observed wind speed, (g) WRF CTRL and observed incoming solar radiation (h) corrected WRF CTRL and observed incoming solar radiation, (i) WRF CTRL and observed precipitation (j) corrected WRF CTRL and observed precipitation. Note that best linear fit is straight line connecting the first and third quartiles.

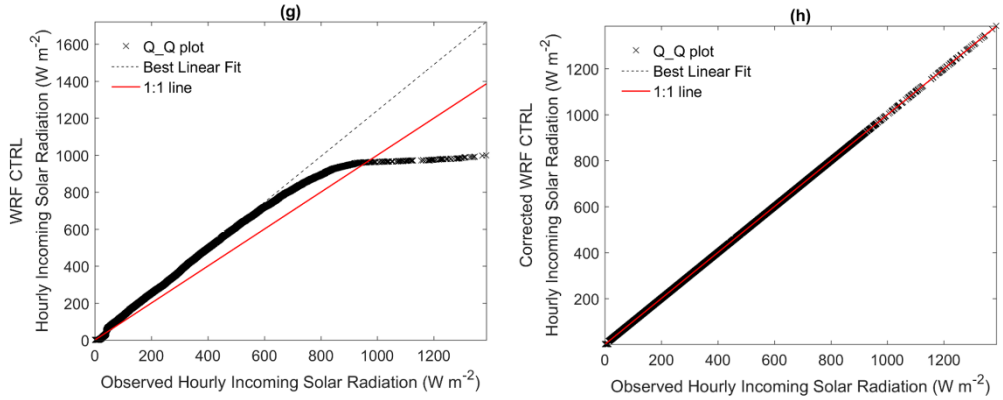

Figure S1. Continued.

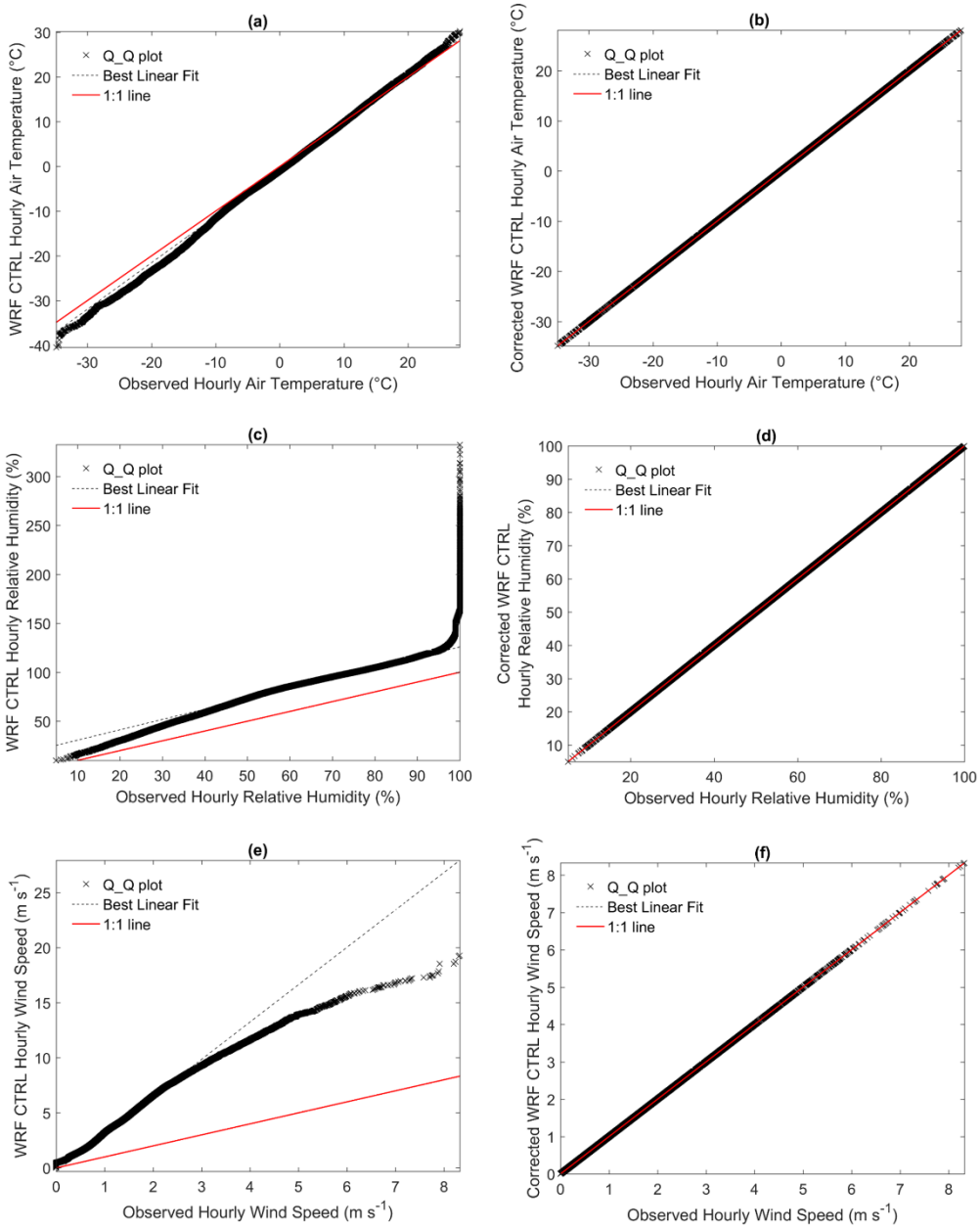

Figure S2. Quantile-quantile plots of observations and WRF CTRL outputs for Vista View station in MCRB: (a) WRF CTRL and observed air temperature, (b) corrected WRF CTRL and observed air temperature, (c) WRF CTRL and observed relative humidity (d) corrected WRF CTRL and observed relative humidity, (e) WRF CTRL and observed wind speed (f) corrected WRF CTRL and observed wind speed, (g) WRF CTRL and observed incoming solar radiation (h) corrected WRF CTRL and observed incoming solar radiation, (i) WRF CTRL and observed precipitation (j) corrected WRF CTRL and observed precipitation. Note that best linear fit is straight line connecting the first and third quartiles.

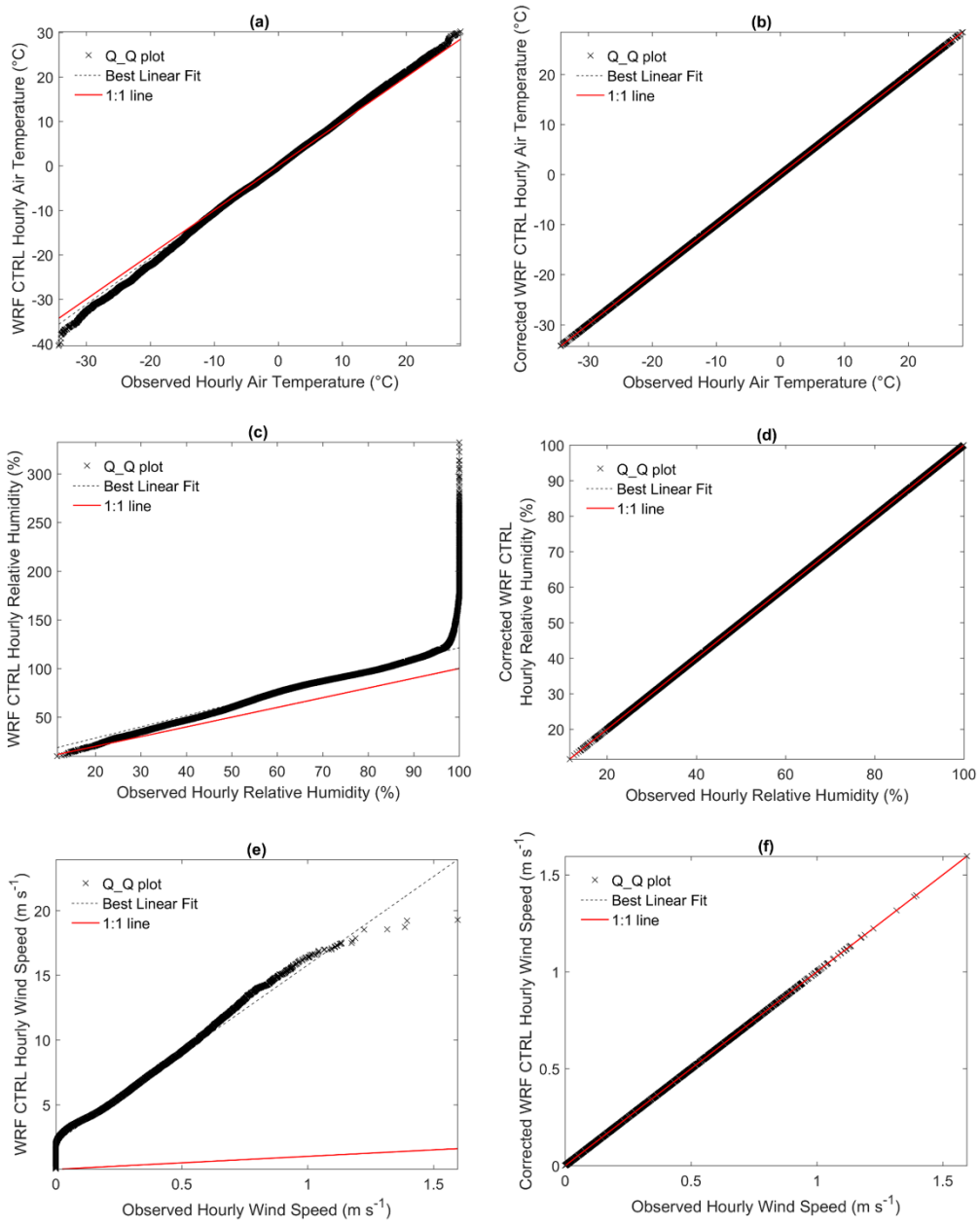

Figure S3. Quantile-quantile plots of observations and WRF CTRL outputs for Upper Forest station in MCRB: (a) WRF CTRL and observed air temperature, (b) corrected WRF CTRL and observed air temperature, (c) WRF CTRL and observed relative humidity (d) corrected WRF CTRL and observed relative humidity, (e) WRF CTRL and observed wind speed (f) corrected WRF CTRL and observed wind speed, (g) WRF CTRL and observed incoming solar radiation (h) corrected WRF CTRL and observed incoming solar radiation, (i) WRF CTRL and observed precipitation (j) corrected WRF CTRL and observed precipitation. Note that best linear fit is straight line connecting the first and third quartiles.

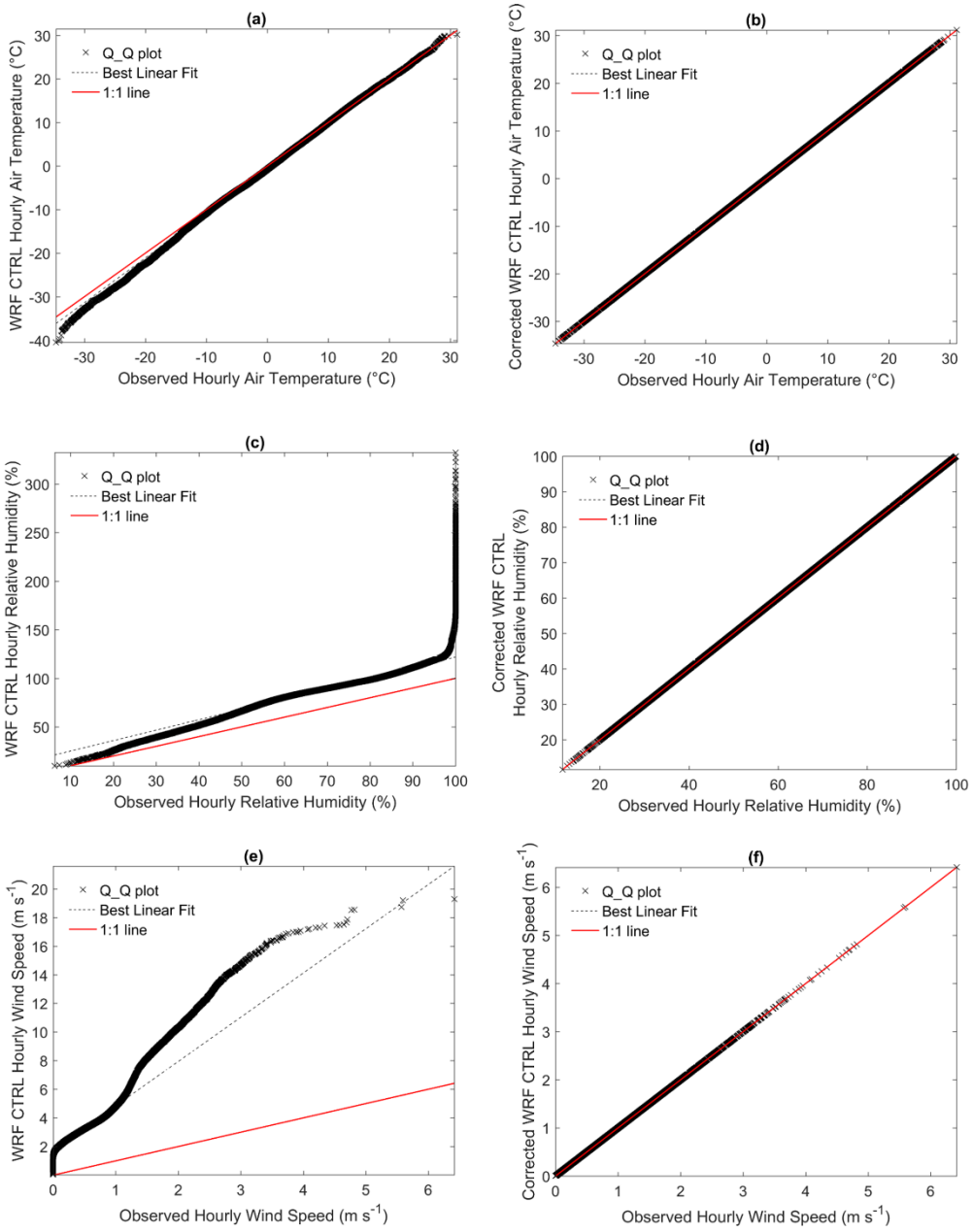

Figure S4. Quantile-quantile plots of observations and WRF CTRL outputs for Upper Clearing station in MCRB: (a) WRF CTRL and observed air temperature, (b) corrected WRF CTRL and observed air temperature, (c) WRF CTRL and observed relative humidity (d) corrected WRF CTRL and observed relative humidity, (e) WRF CTRL and observed wind speed (f) corrected WRF CTRL and observed wind speed, (g) WRF CTRL and observed incoming solar radiation (h) corrected WRF CTRL and observed incoming solar radiation, (i) WRF CTRL and observed precipitation (j) corrected WRF CTRL and observed precipitation. Note that best linear fit is straight line connecting the first and third quartiles.

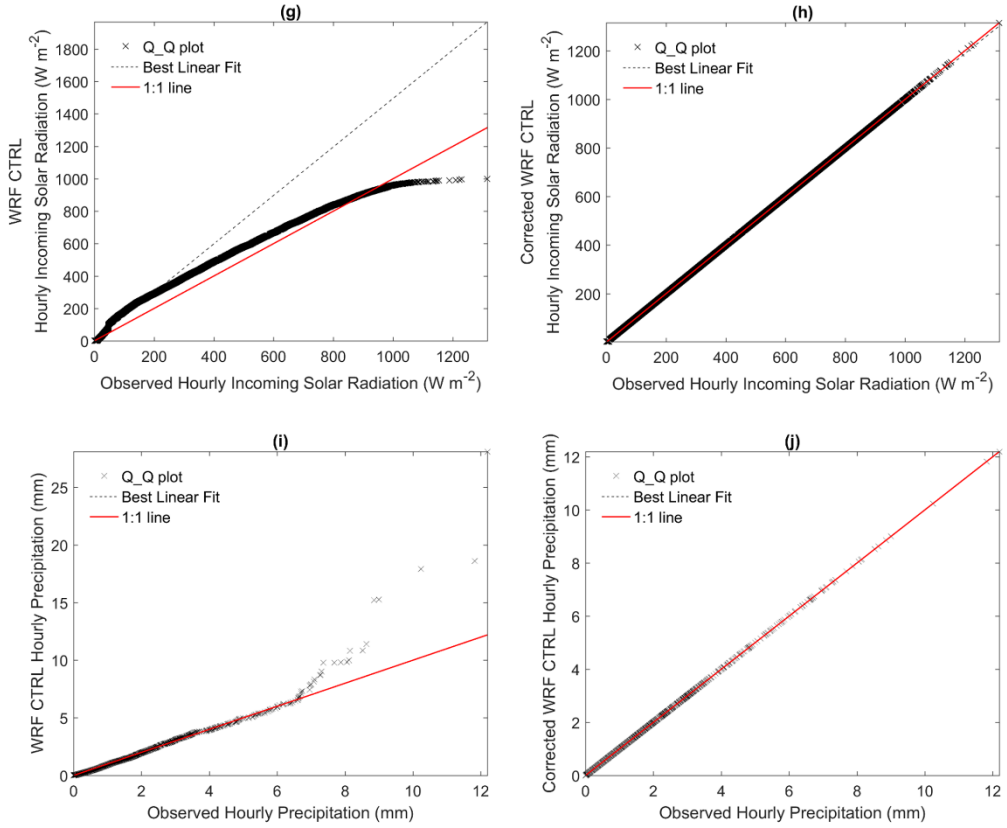

Figure S4. Continued.