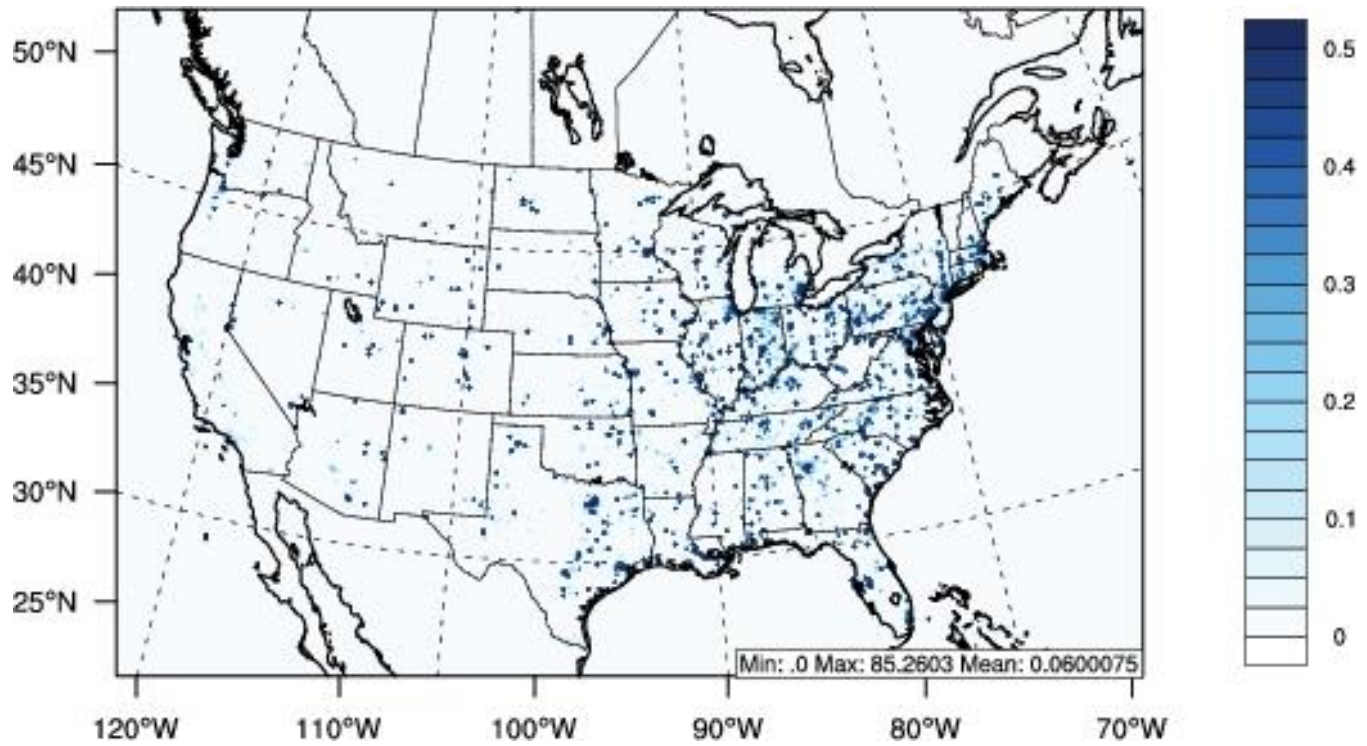
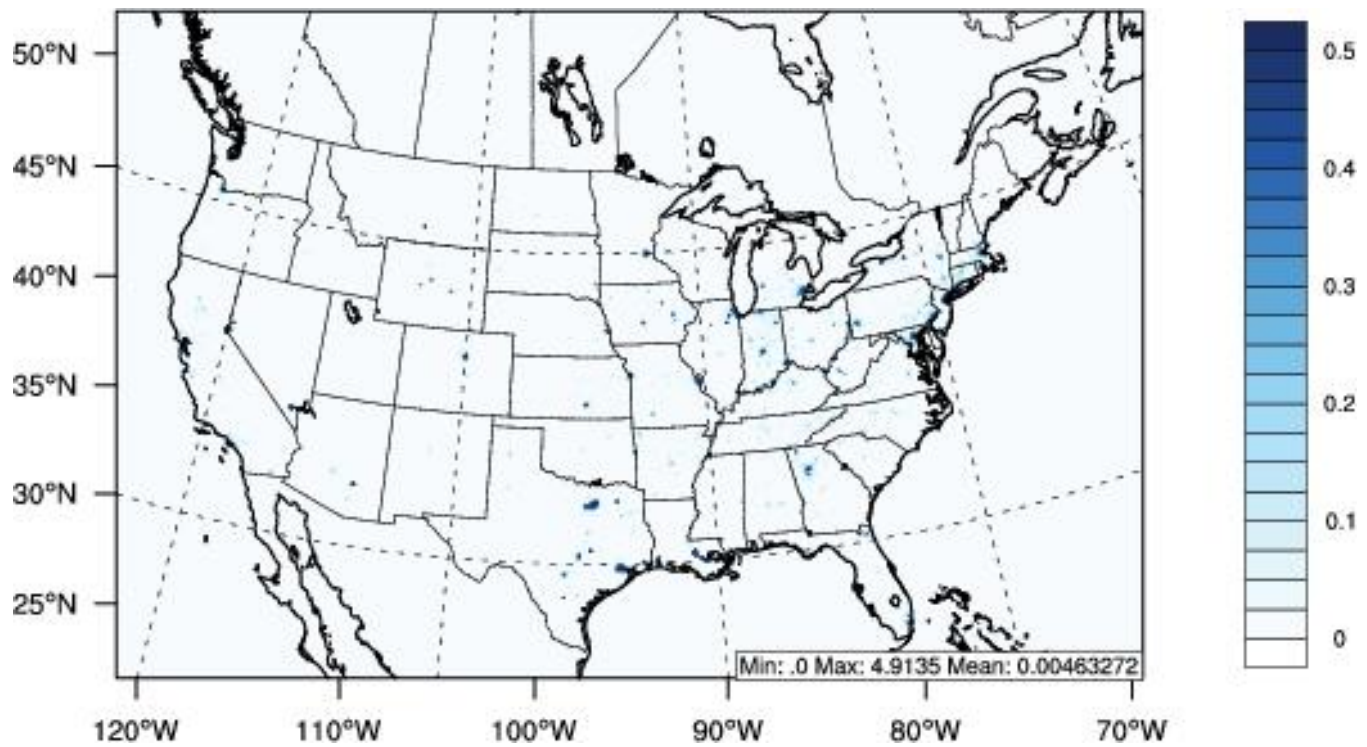


Figure 1: SO₂ annual mean emission rate over the 12km x 12km CONUS domain for (a) 1995 and (b) 2010 (unit: moles s⁻¹ grid).

(a)



(b)



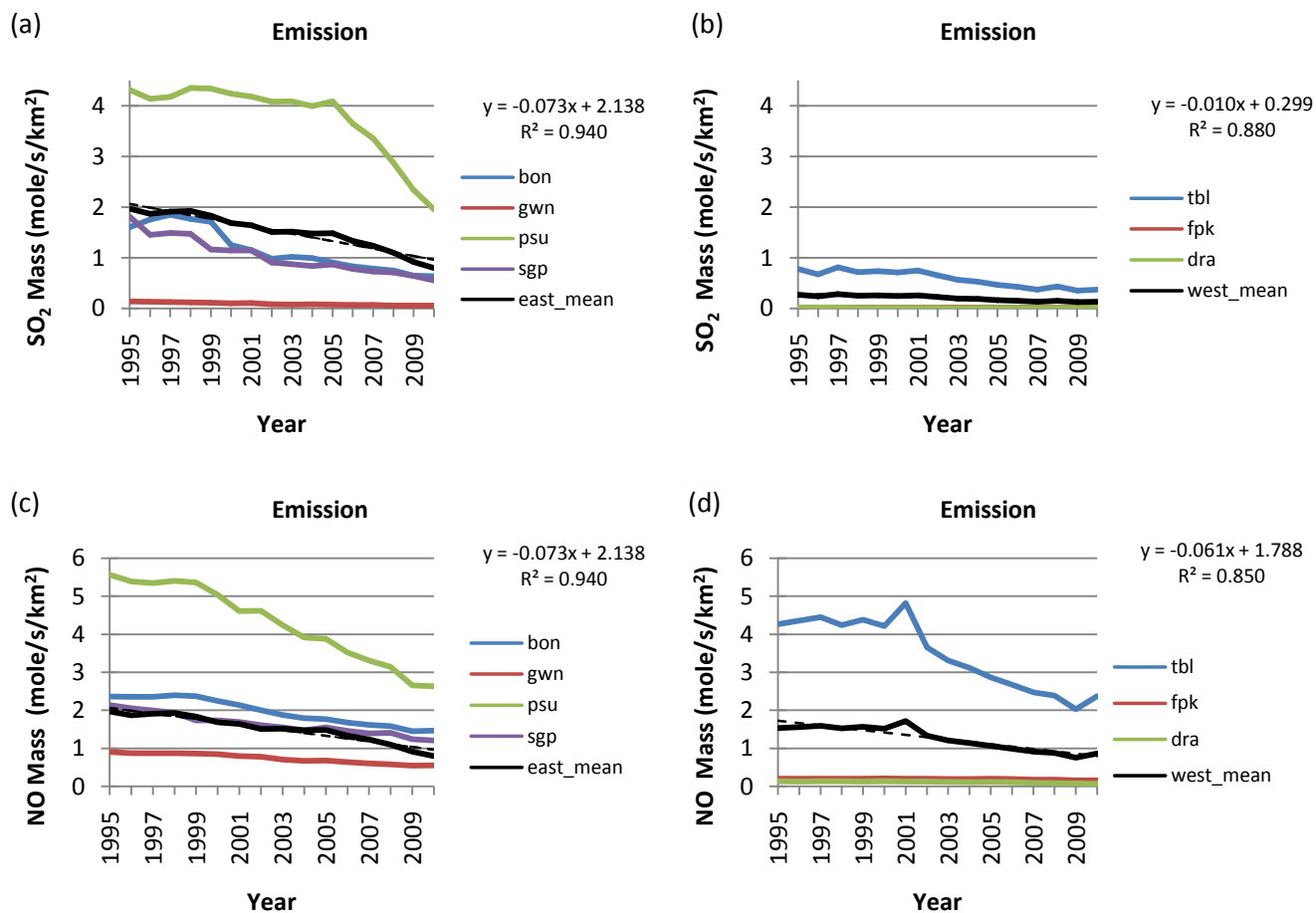


Figure 2: Annual mean of SO₂ (first row) and NO_x (second row) emission for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R^2) are given at right in each panel. The left column represent eastern U.S. while the right column represent western U.S.

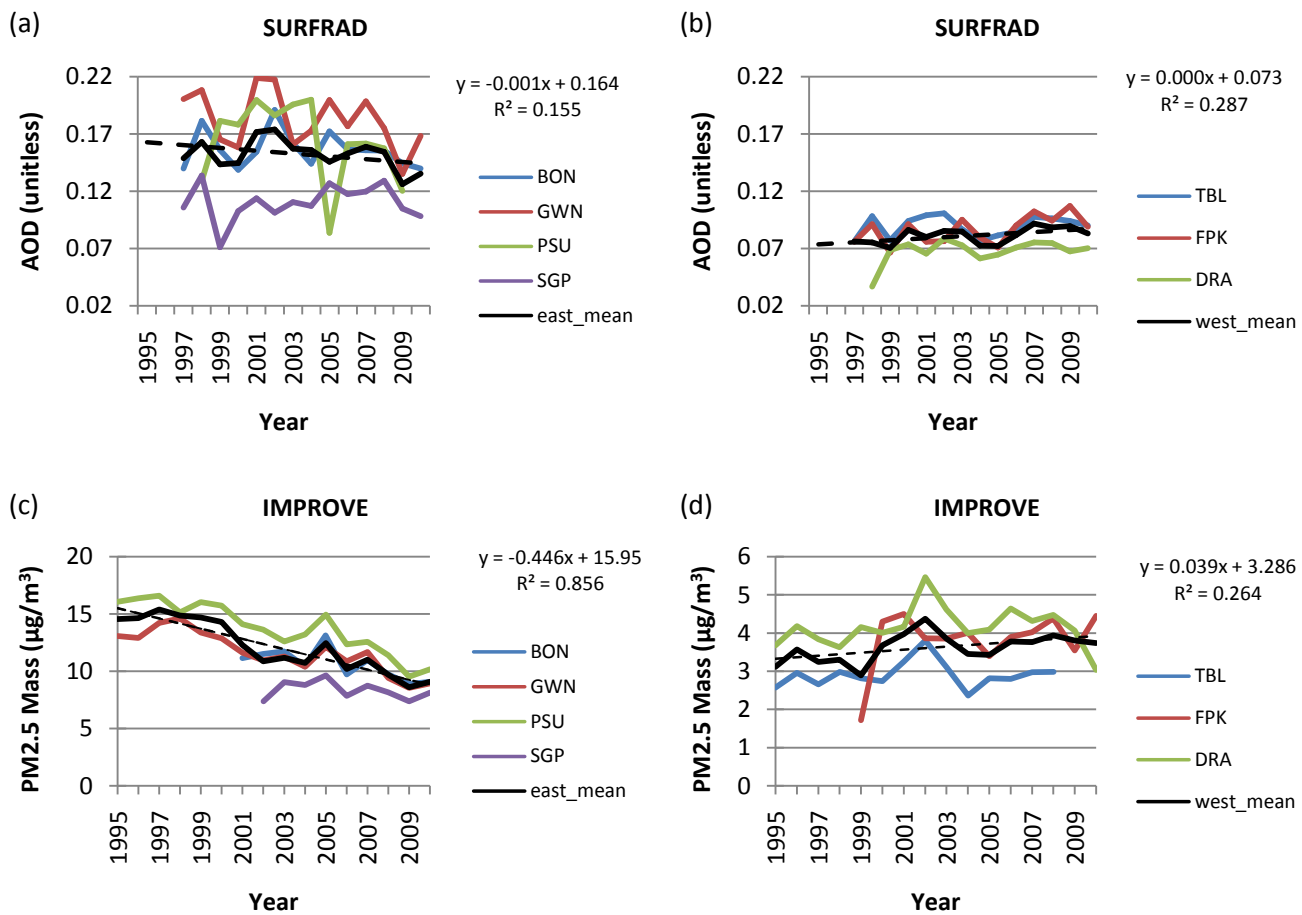


Figure 5: Annual mean of AOD from SURFRAD (first row) and PM_{2.5} from IMPROVE (second row) for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R²) are given at right in each panel. The left column represent eastern U.S. while the right column represent western U.S.

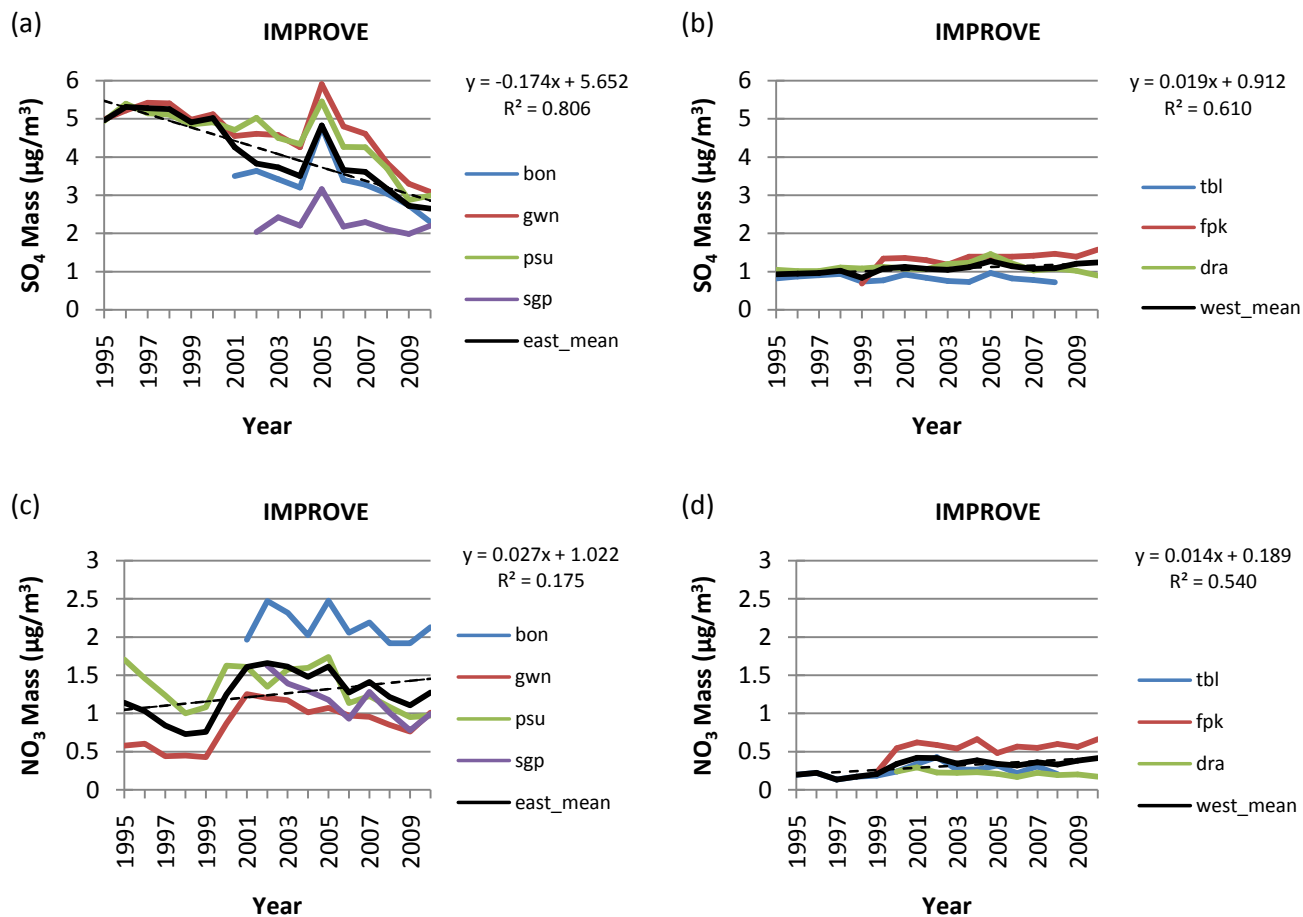


Figure 6: Annual mean of SO_4 (first row) and NO_3 (second row) from IMPROVE for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R^2) are given at right in each panel. The left column represent eastern U.S. while the right column represent western U.S.

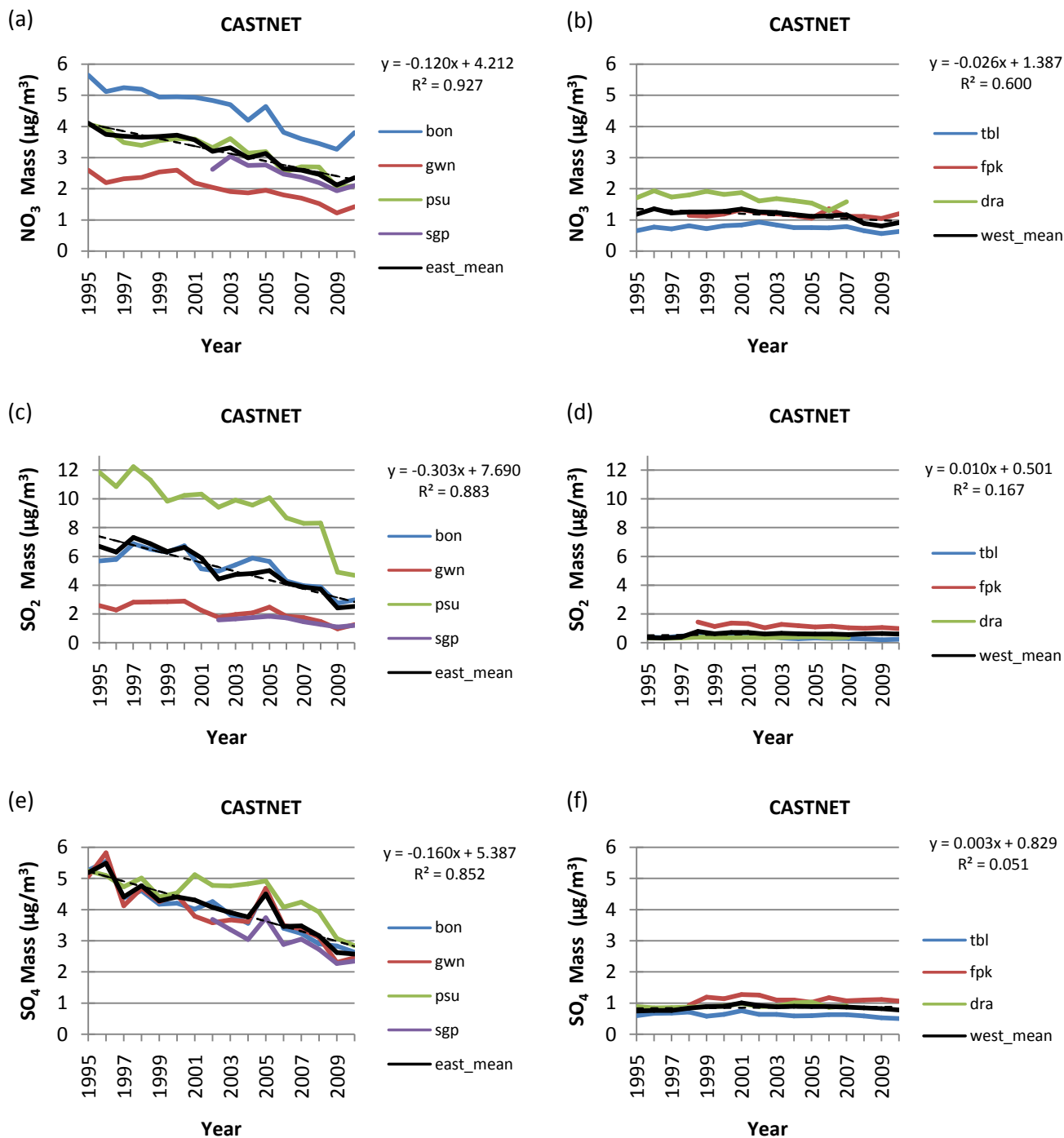


Figure 7: Annual mean of SO_4 (first row), SO_2 (second row) and NO_3 (third row) from CASTNET for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R^2) are given at right in each panel. The left column represent eastern U.S. while the right column represent western U.S.

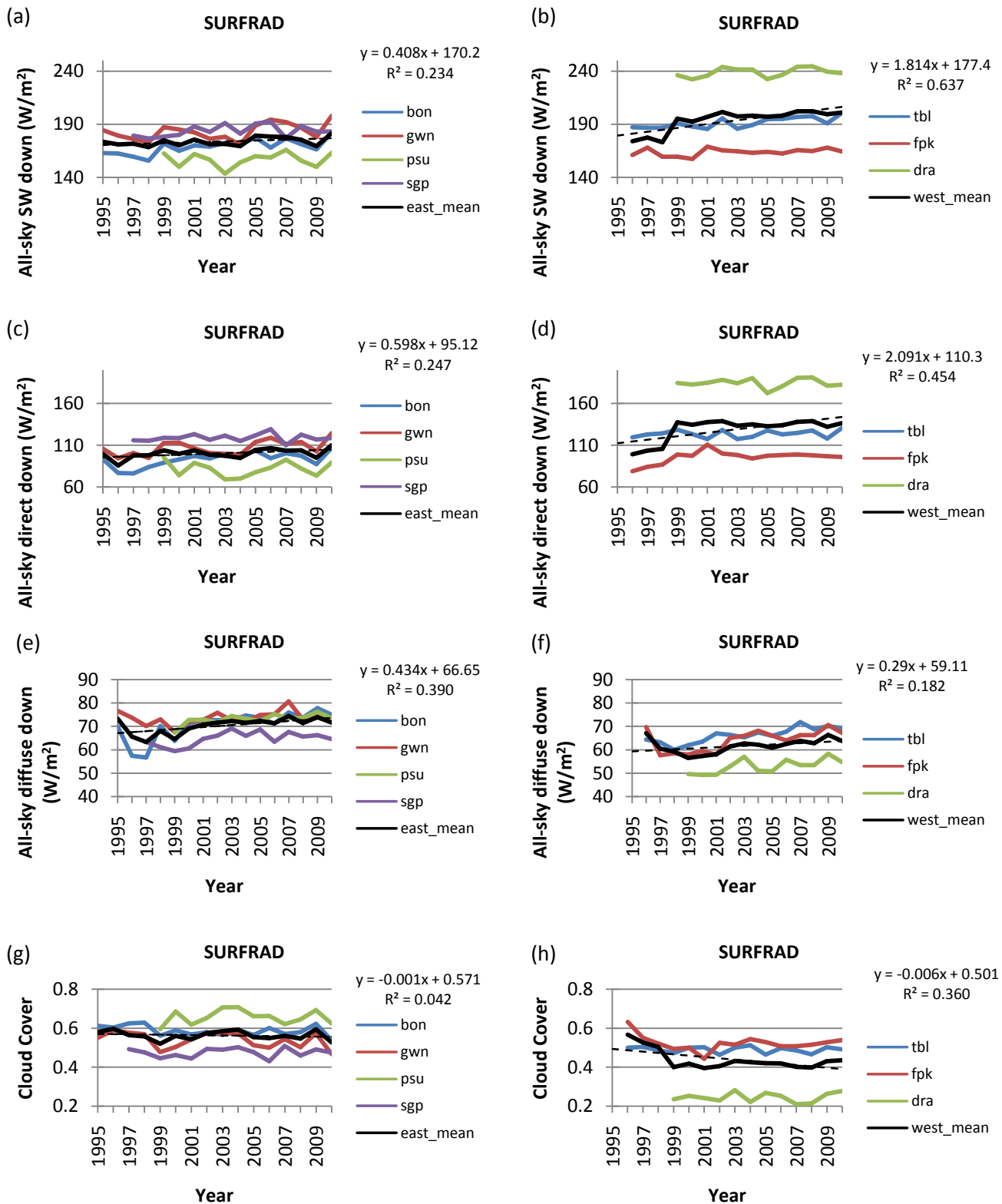


Figure 8: Annual mean of all-sky downwelling SW (first row), direct SW (second row), diffuse SW (third row) and cloud cover fraction (fourth row) from SURFRAD for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R^2) are given at right in each panel. The left column represents eastern U.S. while the right column represents western U.S.

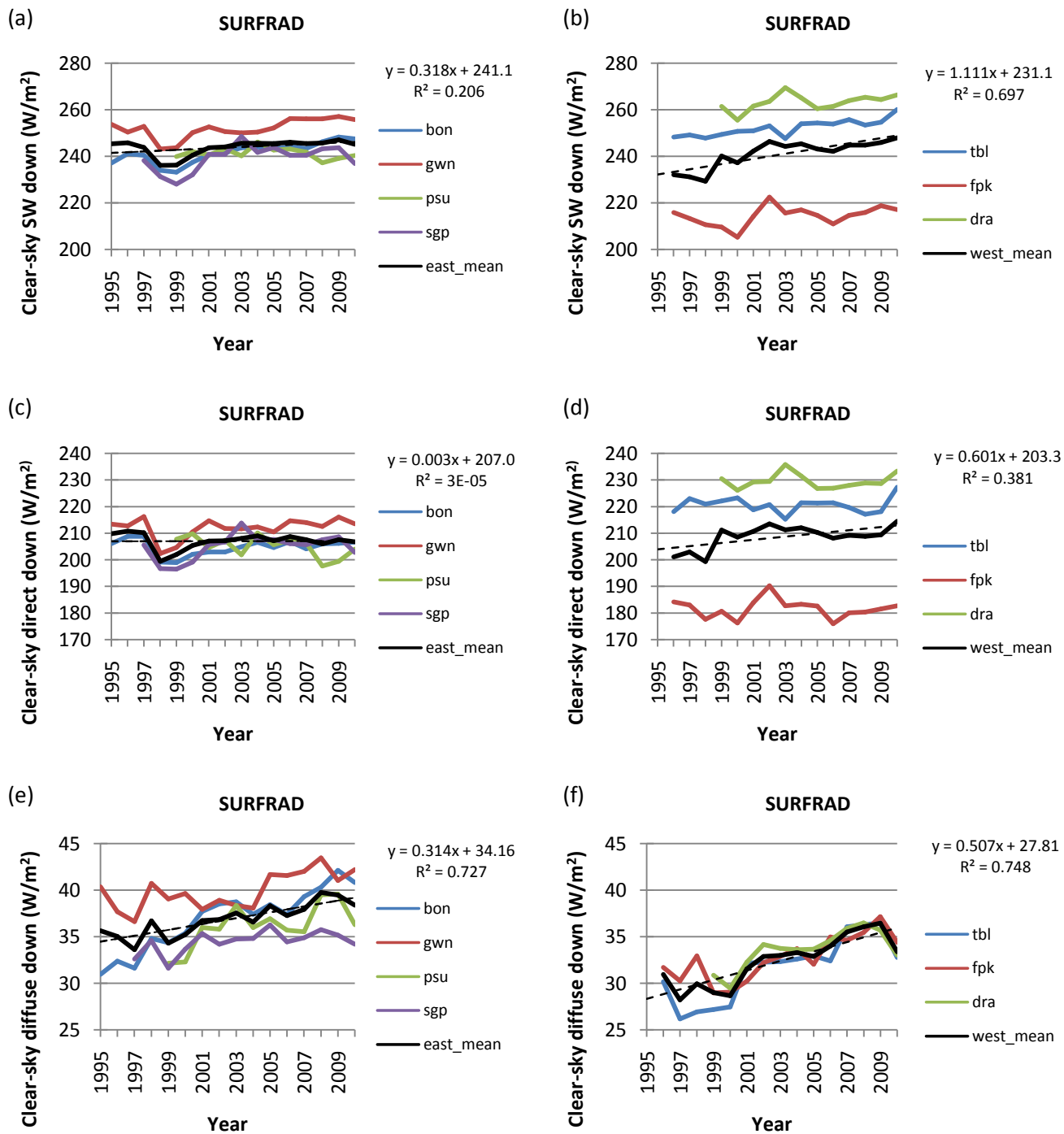


Figure 9: Annual mean of clear-sky downwelling SW (first row), direct SW (second row) and diffuse SW (third row) from SURFRAD for each site (colored line) and the network mean (solid black line) together with the LSF (dash black line) to the network mean. The best-fit equation and coefficient of determination (R^2) are given at right in each panel. The left column represent eastern U.S. while the right column represent western U.S.