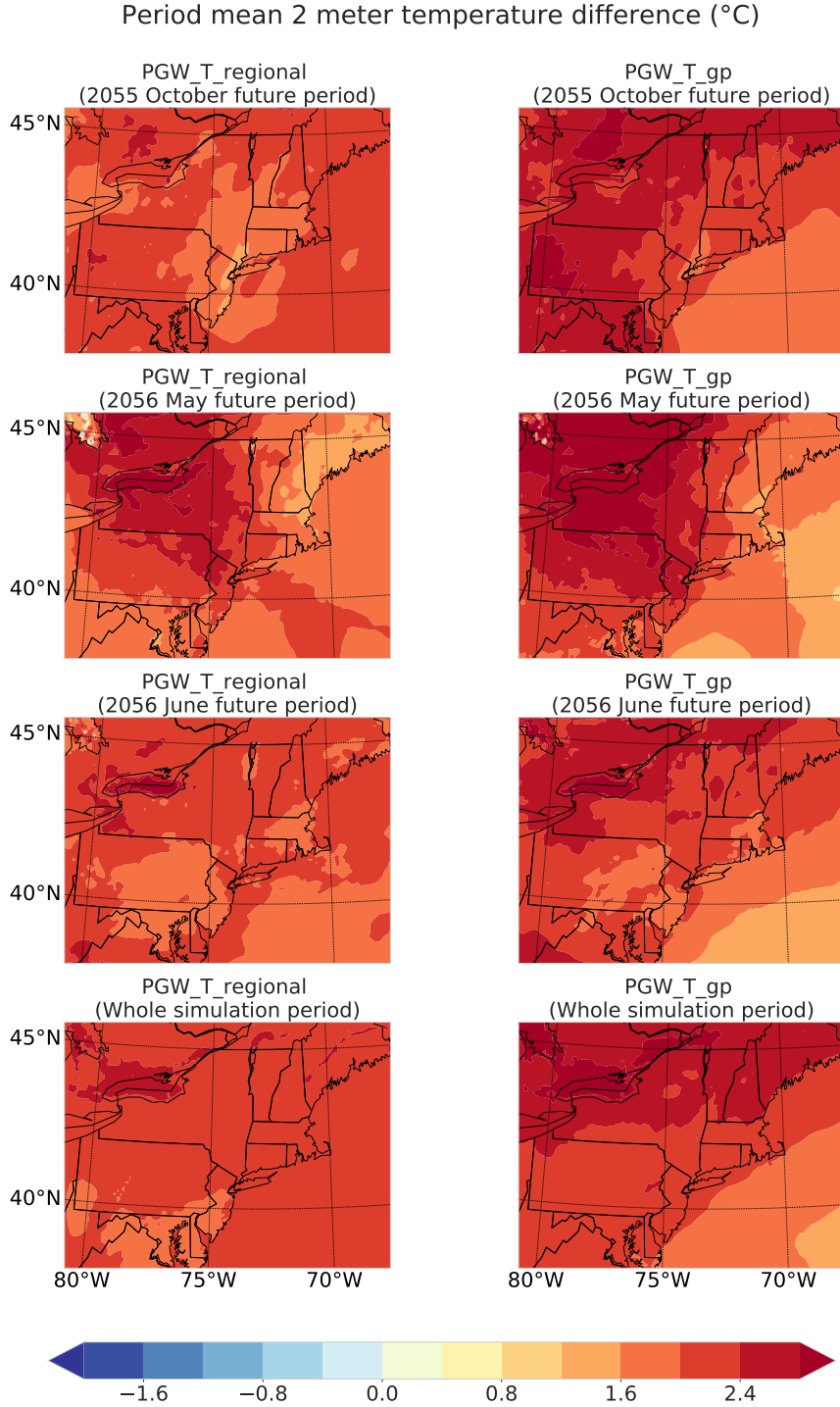


LIST OF FIGURES

1	Fig. S1.	Period mean temperature deltas at 2 meter ($^{\circ}\text{C}$) over the inner domain from the simulation with temperature perturbation at regional mean scale and the simulation with temperature perturbation at each gridpoint (the baseline simulation in both columns is the historical 2000s flood period).	2
6	Fig. S2.	Period mean precipitable Water (mm) over the inner domain from all PGW simulations during flood periods.	3
8	Fig. S3.	Period mean sea level pressure (hPa) over the inner domain from all PGW simulations during flood periods.	4
10	Fig. S4.	Period mean zonal wind (m s^{-1}) over the inner domain from all PGW simulations during flood periods.	5
12	Fig. S5.	Period mean meridional wind (m s^{-1}) over the inner domain from all PGW simulations during flood periods.	6
14	Fig. S6.	Period mean zonal wind and simulation delta (m s^{-1}) over the whole domain from all PGW simulations during flood periods.	7
16	Fig. S7.	Period mean meridional wind and simulation delta (m s^{-1}) over the whole domain from all PGW simulations during flood periods.	8
18	Fig. S8.	Regional mean daily temperature ($^{\circ}\text{C}$) at 2 meter over the Central Coast (defined as 40°N to 41°N latitude and 73°W to 74°W longitude) during Flood periods.	9
20	Fig. S9.	Period mean wind speed (knot) and wind barbs over the inner domain during flood periods.	10
21	Fig. S10.	Period mean omega (Pa s^{-1}) over the inner domain from all PGW simulations during flood periods.	11
23	Fig. S11.	Historical period mean zonal wind and simulation delta (m s^{-1}) over the inner domain from PGW simulations during flood periods.	12
25	Fig. S12.	Historical period mean meridional wind and simulation delta (m s^{-1}) over the inner domain from PGW simulations during flood periods.	13
27	Fig. S13.	Historical period mean sea level pressure and simulation delta (hPa) over the inner domain from PGW simulations during flood periods.	14



29 Fig. S1. Period mean temperature deltas at 2 meter (°C) over the inner domain from the simulation with tem-
 30 perature perturbation at regional mean scale and the simulation with temperature perturbation at each gridpoint
 31 (the baseline simulation in both columns is the historical 2000s flood period).

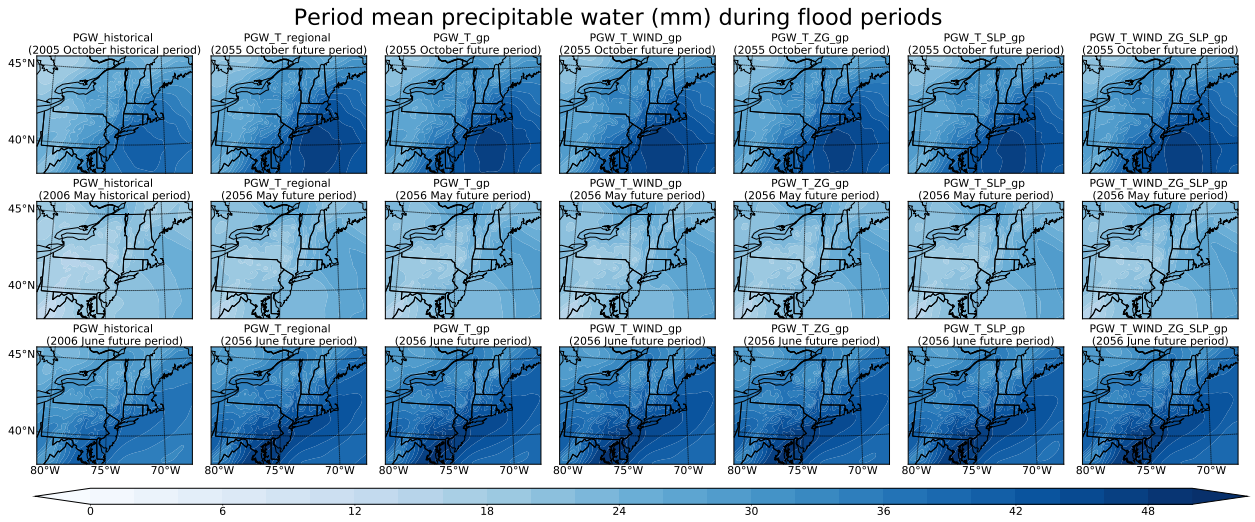
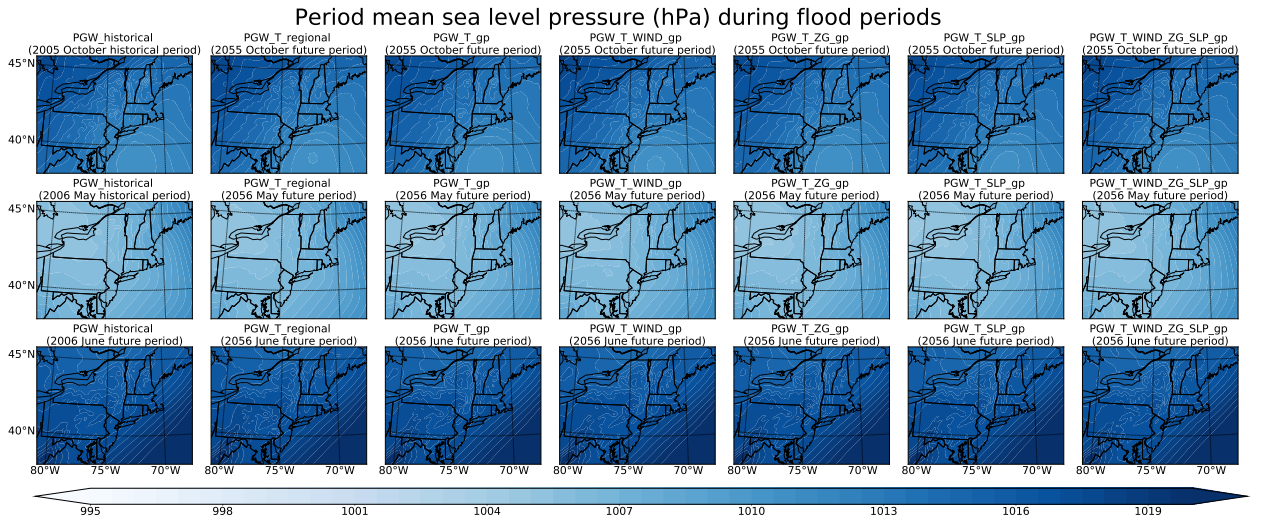


Fig. S2. Period mean precipitable Water (mm) over the inner domain from all PGW simulations during flood periods.



34 Fig. S3. Period mean sea level pressure (hPa) over the inner domain from all PGW simulations during flood
 35 periods.

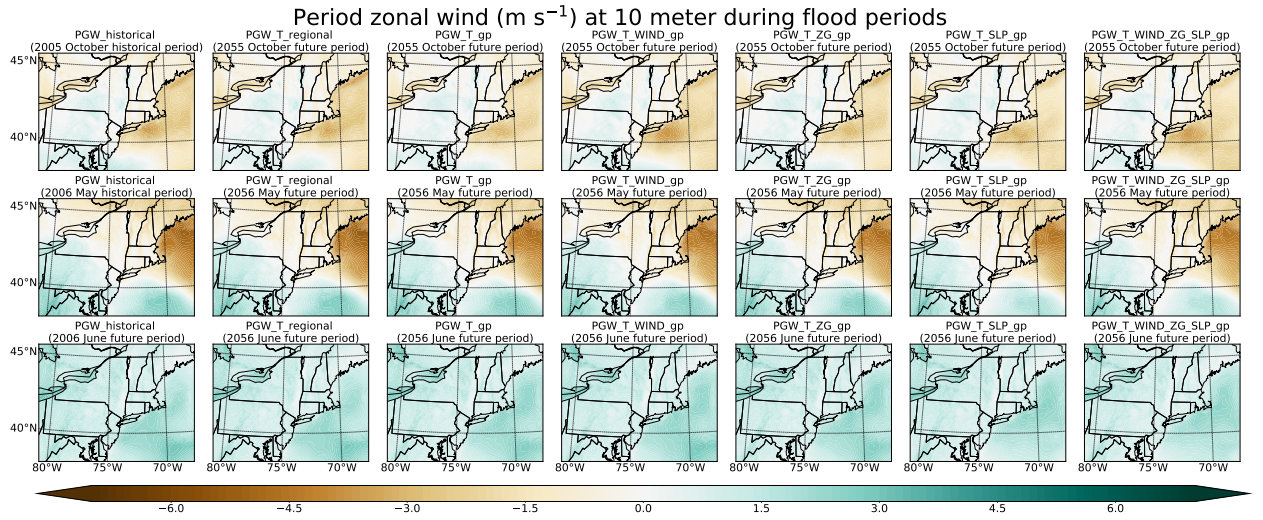
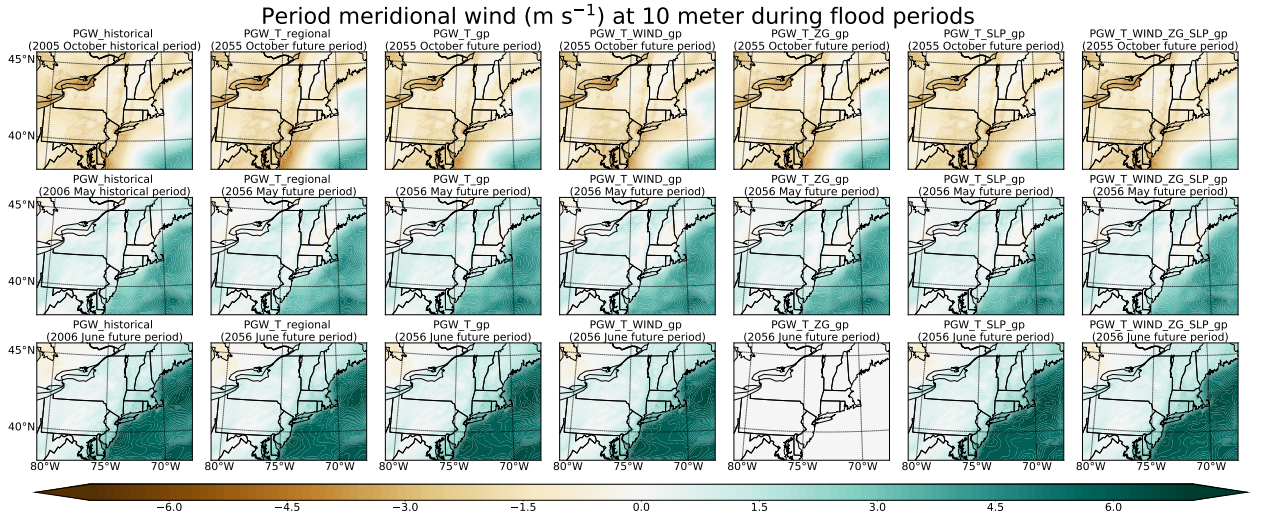
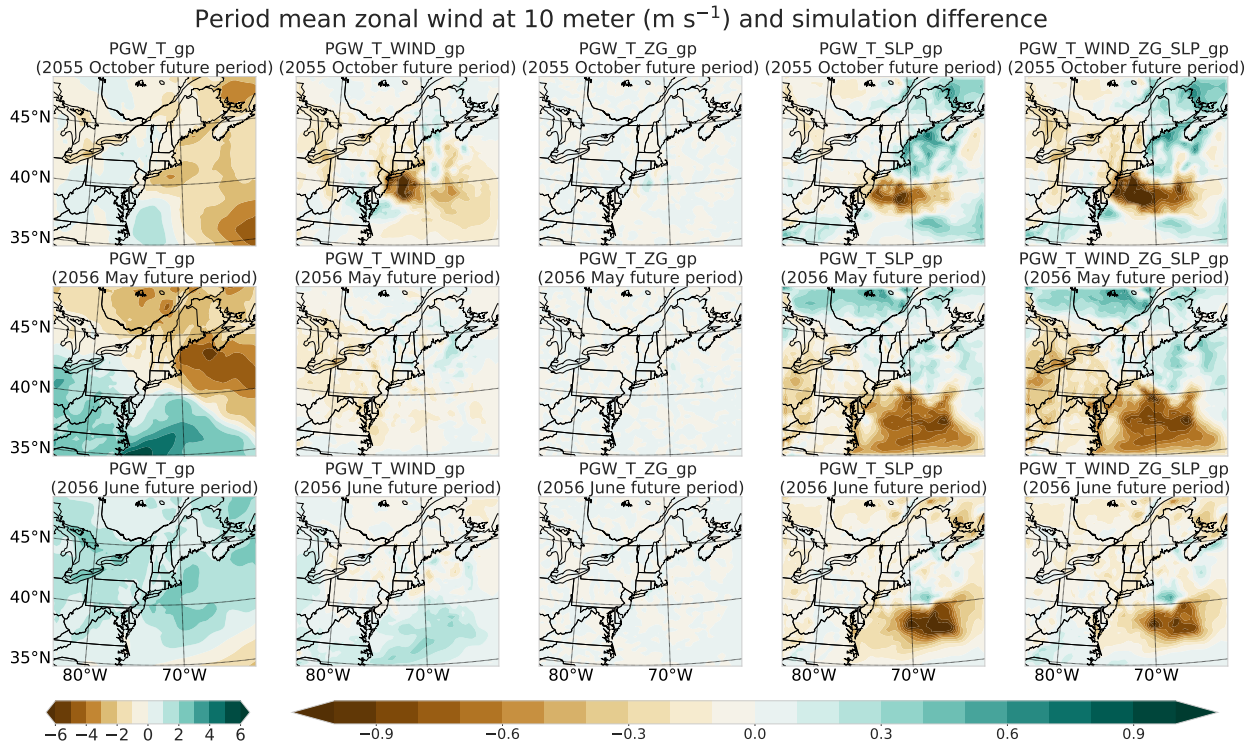


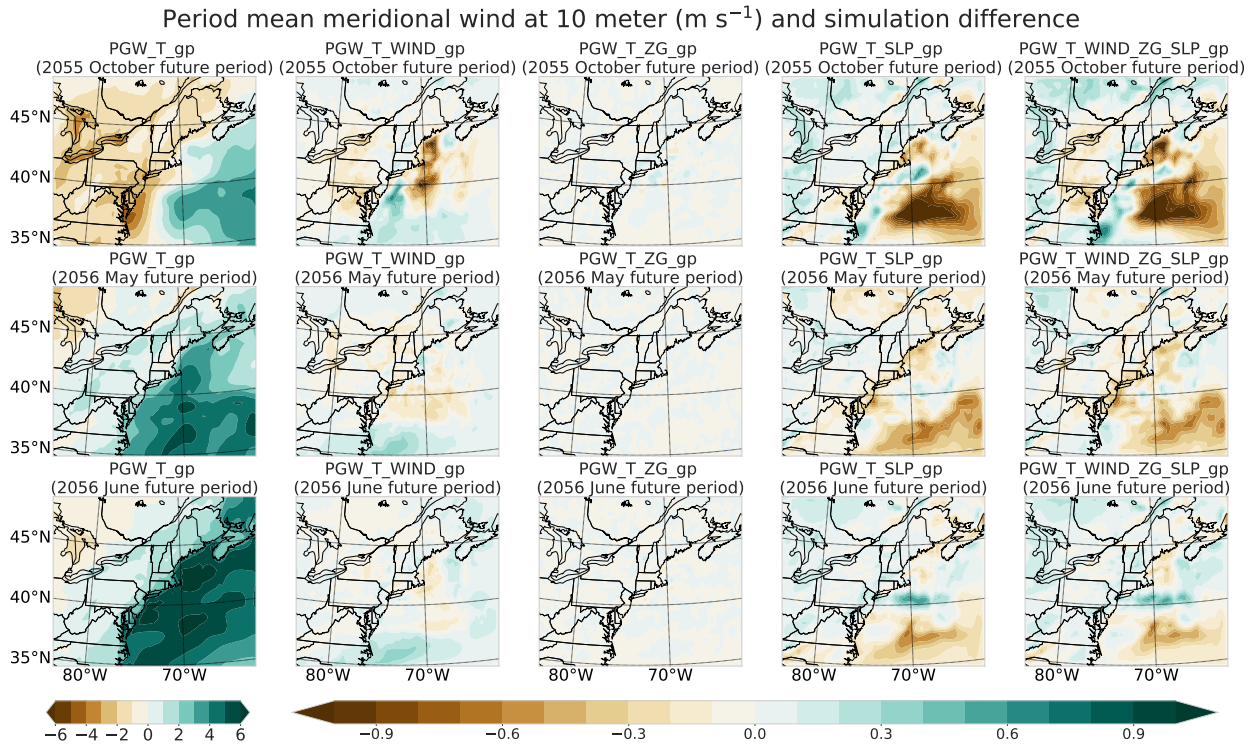
Fig. S4. Period mean zonal wind (m s^{-1}) over the inner domain from all PGW simulations during flood periods.



36 Fig. S5. Period mean meridional wind (m s^{-1}) over the inner domain from all PGW simulations during flood
 37 periods.



38 Fig. S6. Period mean zonal wind and simulation delta (m s^{-1}) over the whole domain from all PGW simula-
 39 tions during flood periods.



40 Fig. S7. Period mean meridional wind and simulation delta (m s^{-1}) over the whole domain from all PGW
 41 simulations during flood periods.

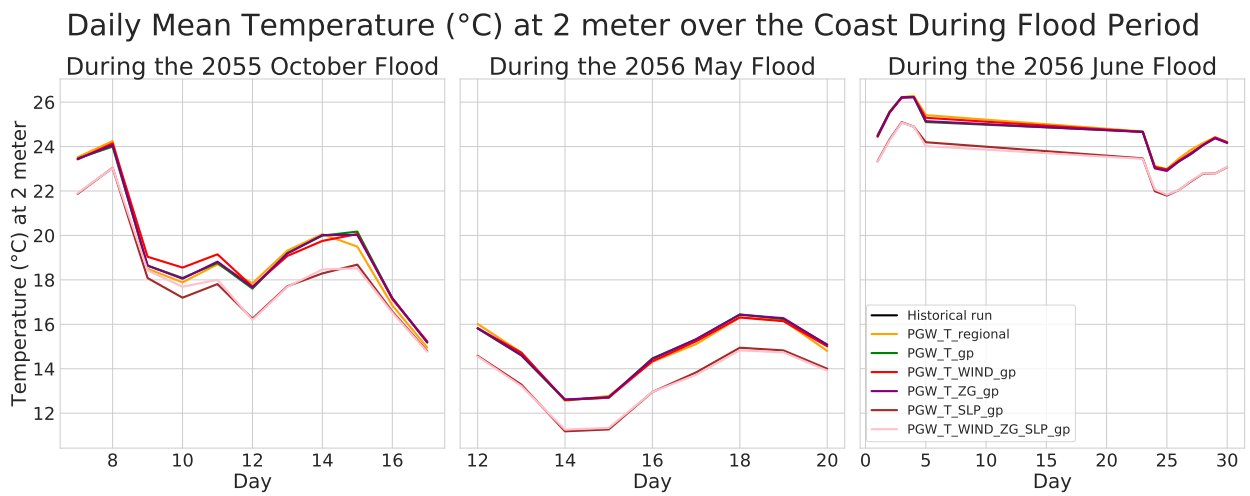


Fig. S8. Regional mean daily temperature (°C) at 2 meter over the Central Coast (defined as 40°N to 41°N latitude and 73°W to 74°W longitude) during Flood periods.

Period Mean Wind Speed (kt) and Wind Barbs

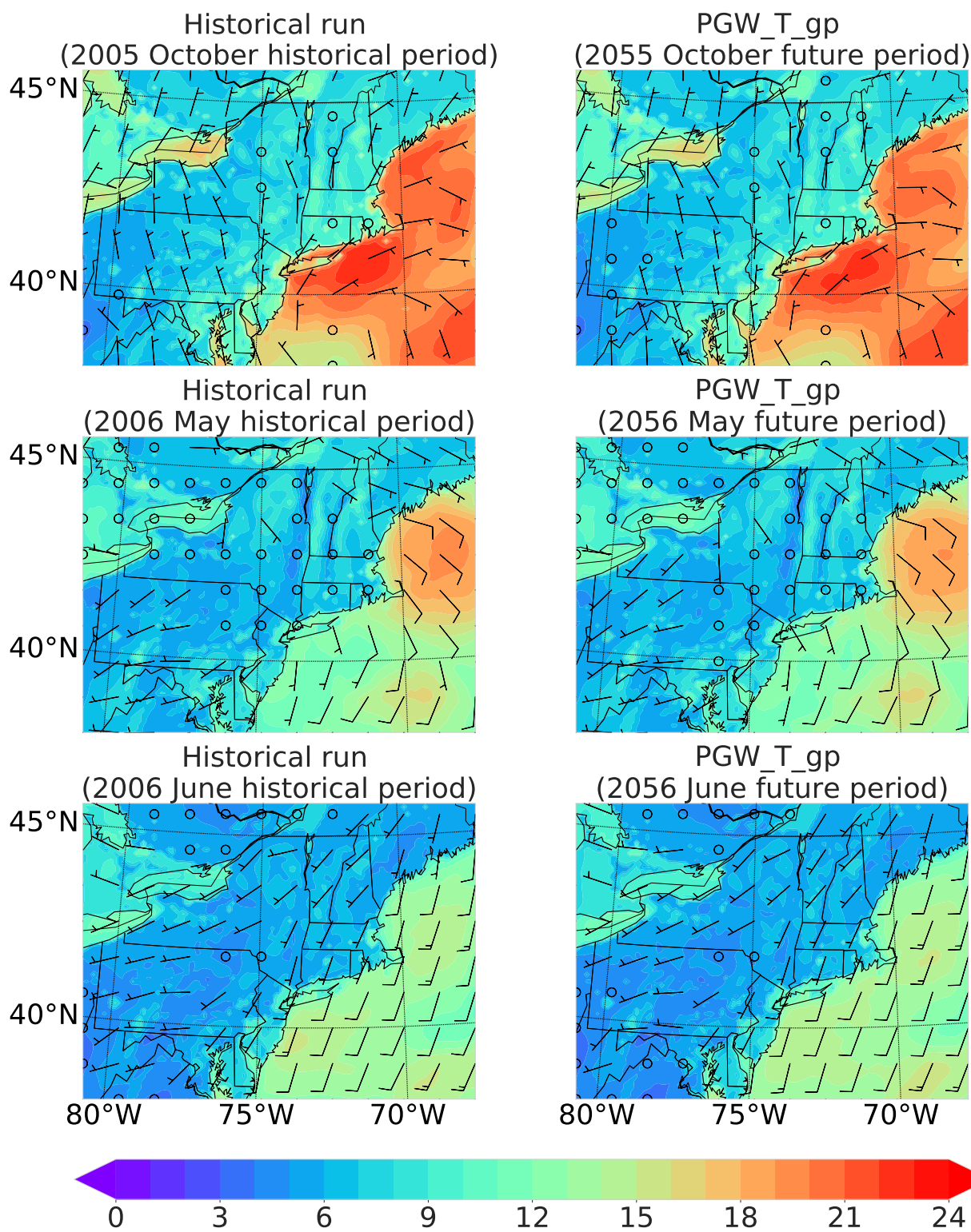


Fig. S9. Period mean wind speed (knot) and wind barbs over the inner domain during flood periods.

Period mean omega at 700 hPa (Pa s^{-1})

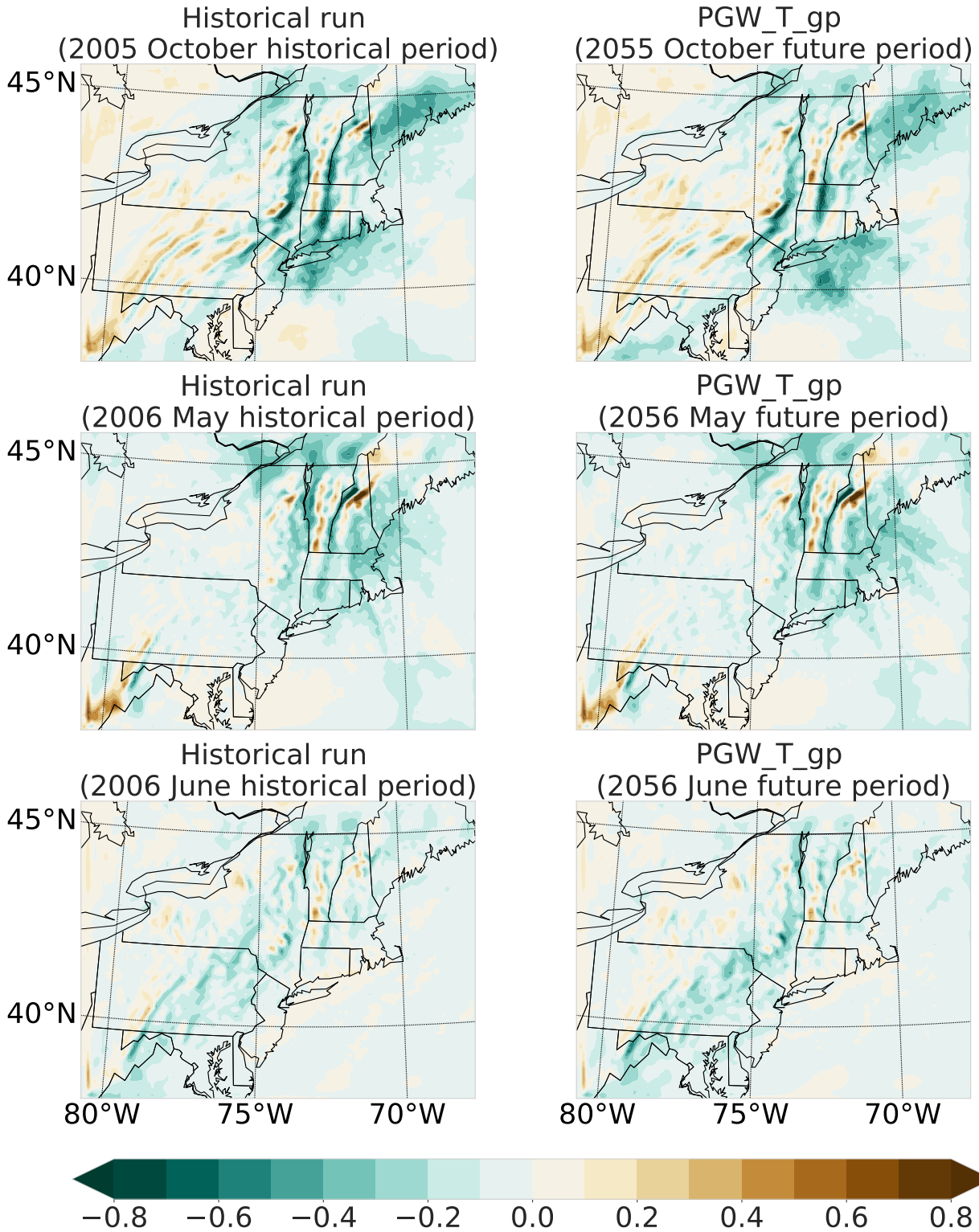


Fig. S10. Period mean omega (Pa s^{-1}) over the inner domain from all PGW simulations during flood periods.

Period mean zonal wind at 10 meter (m s^{-1}) and simulation difference

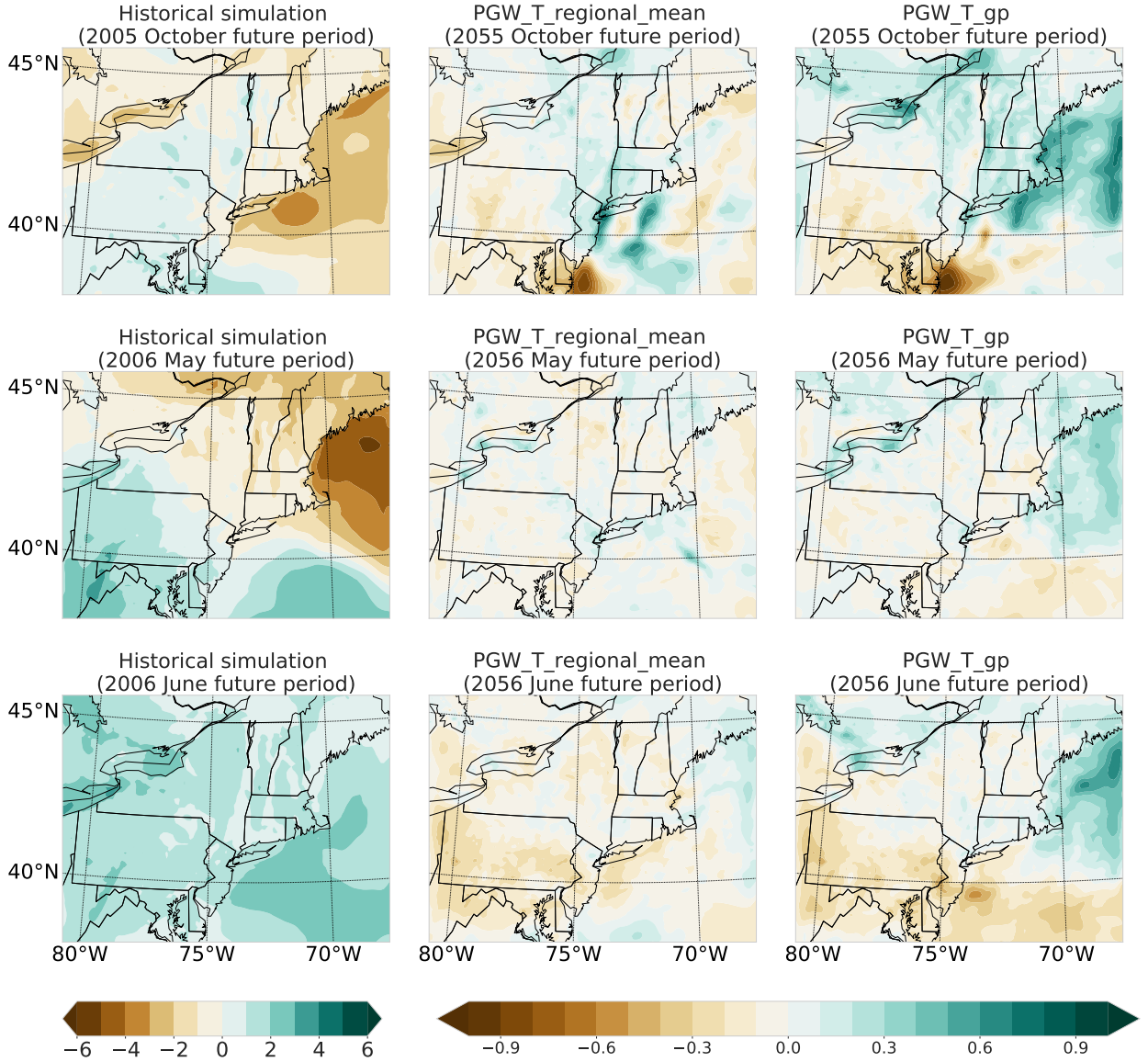
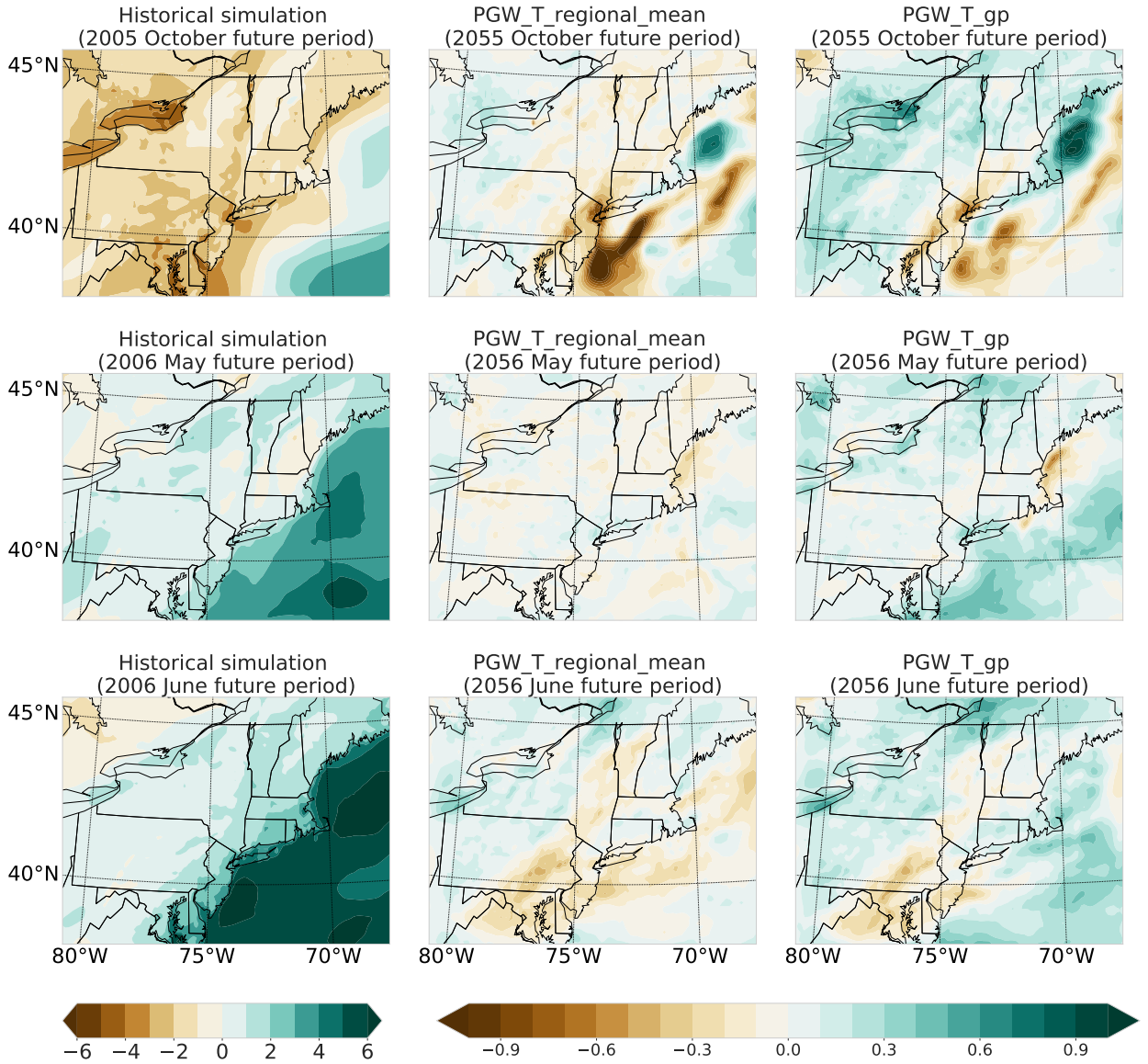


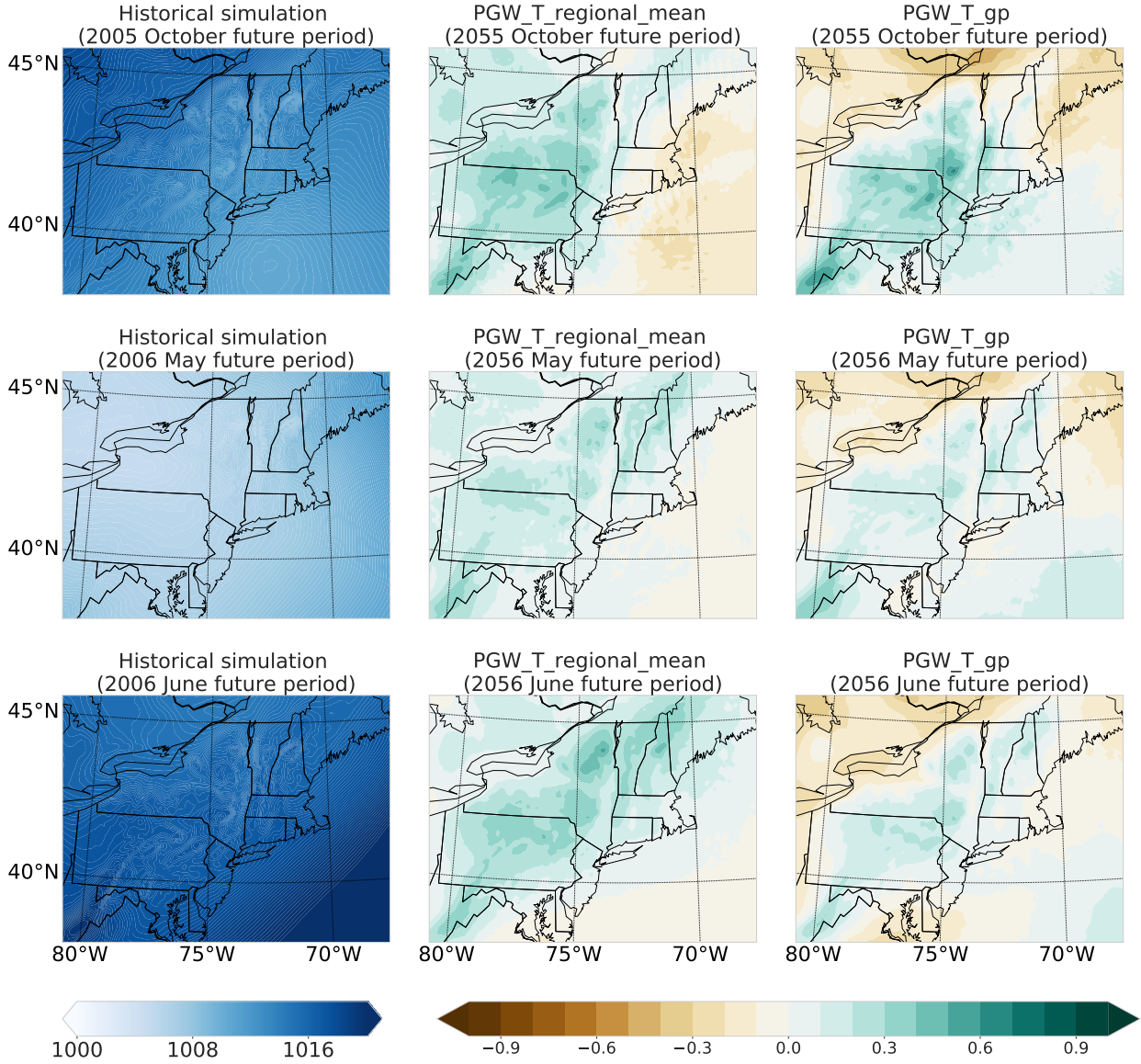
Fig. S11. Historical period mean zonal wind and simulation delta (m s^{-1}) over the inner domain from PGW simulations during flood periods.

Period mean meridional wind at 10 meter (m s^{-1}) and simulation difference



46 Fig. S12. Historical period mean meridional wind and simulation delta (m s^{-1}) over the inner domain from
 47 PGW simulations during flood periods.

Period mean sea level pressure (hPa) and simulation difference



48 Fig. S13. Historical period mean sea level pressure and simulation delta (hPa) over the inner domain from
 49 PGW simulations during flood periods.