

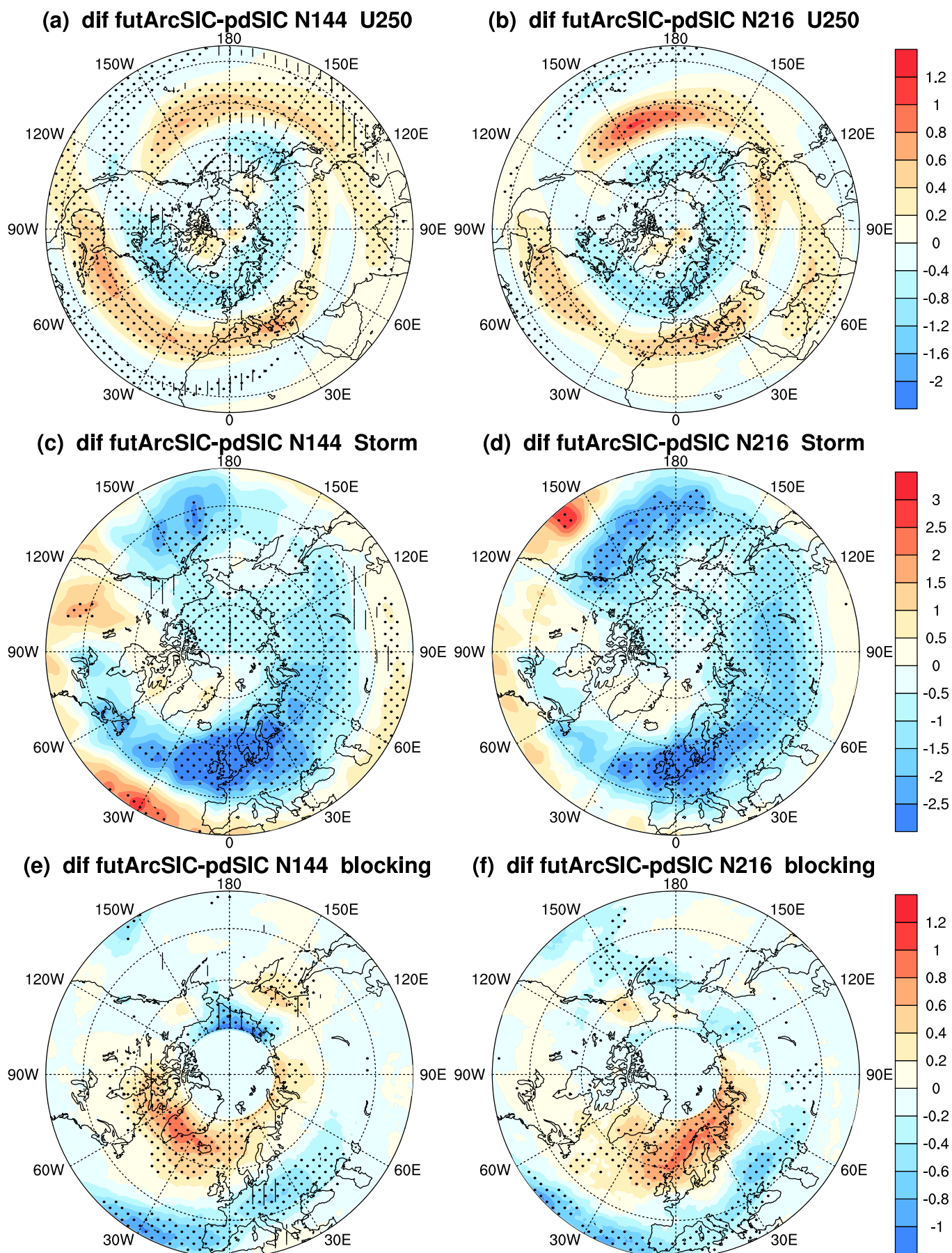
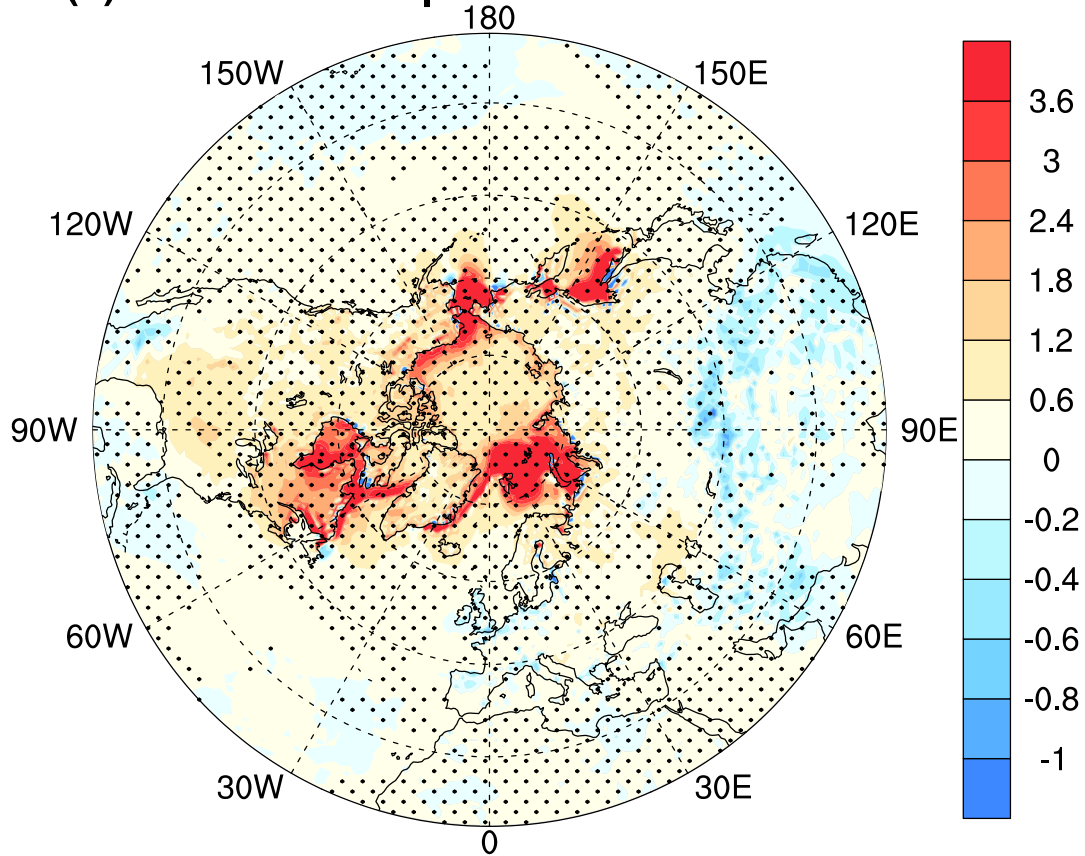


Figure 1. Response of (a, b) zonal wind at 250 hPa, (c, d) storm track activity, and (e, f) blocking frequency to projected Arctic sea-ice loss. Left (right) panels are for N144 (N216) resolution. Units: m/s, m^2/s^2 and days per season for zonal wind, storm track activity and blocking frequency, respectively. Stippling indicates significance at the 5% level for the differences between the experiments. Hatching (vertical lines) indicates significance at the 5% level for the differences in the response between the two resolutions.

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(a) dif futArcSIC-pdSIC N144 Lower 0.1%



(b) dif futArcSIC-pdSIC N216 Lower 0.1%

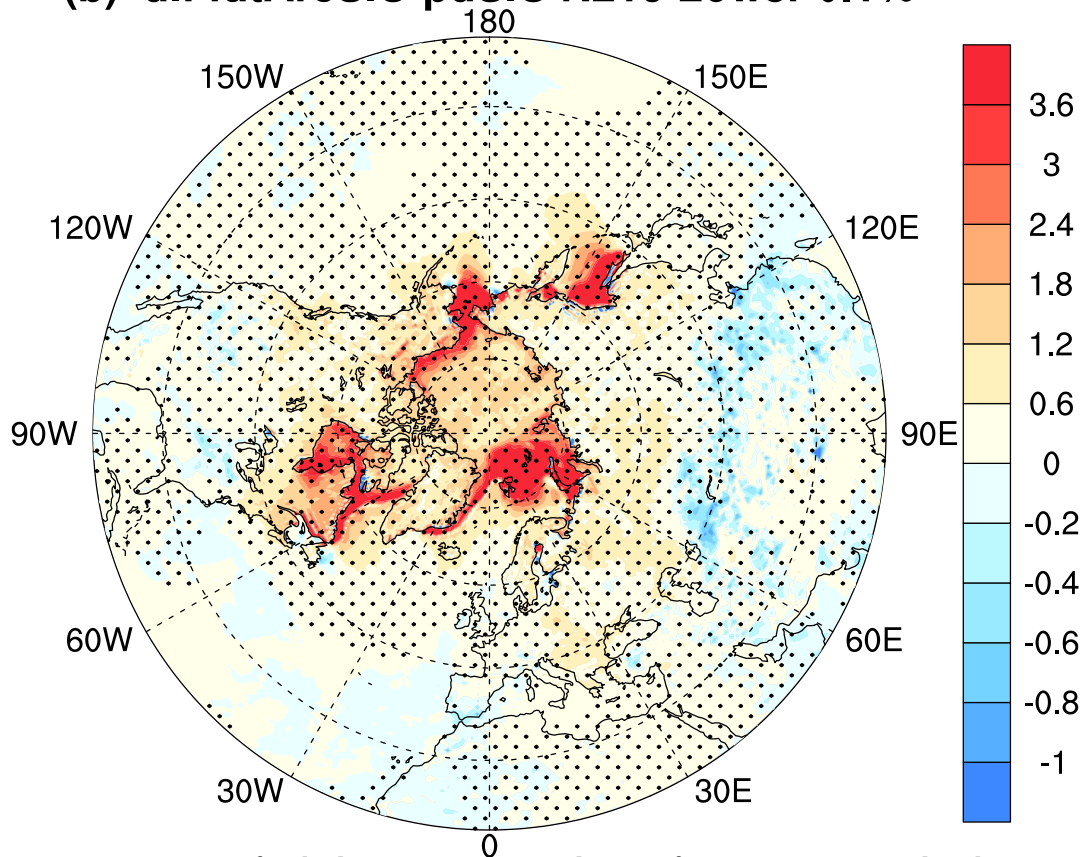


Figure 2. Same as in main Figure 5 except for the lower 0.1% percentile in surface air temperature distribution. Stippling indicates distributions are significantly different between the experiments at the 5% level according to the Kolmogorov-Smirnov two-sample test. Units: °C.

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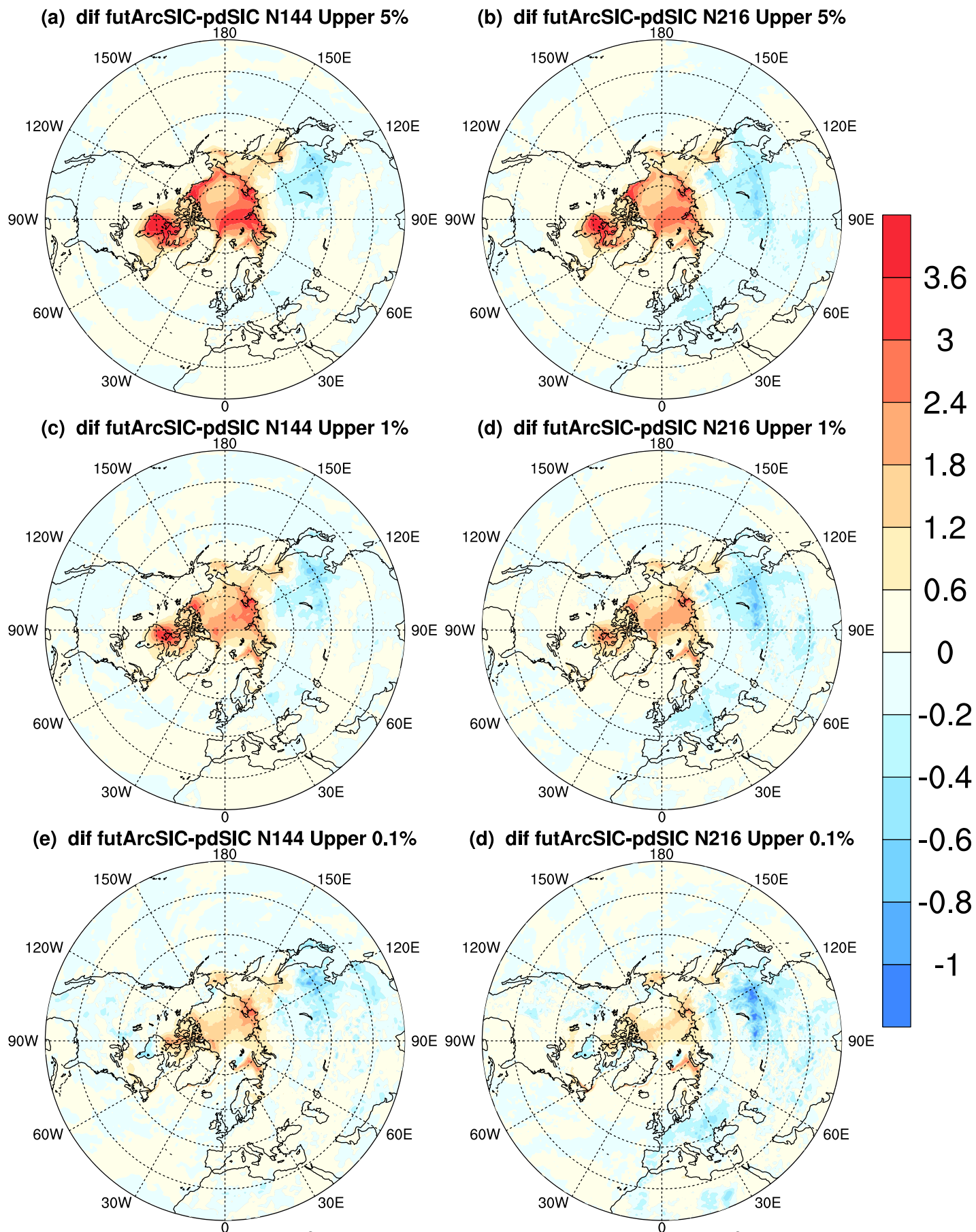


Figure 3. Same as in Figure 5 except for the upper 5%, 1% and 0.1% percentiles in surface air temperature distribution. Units: °C.

DJF-mean response

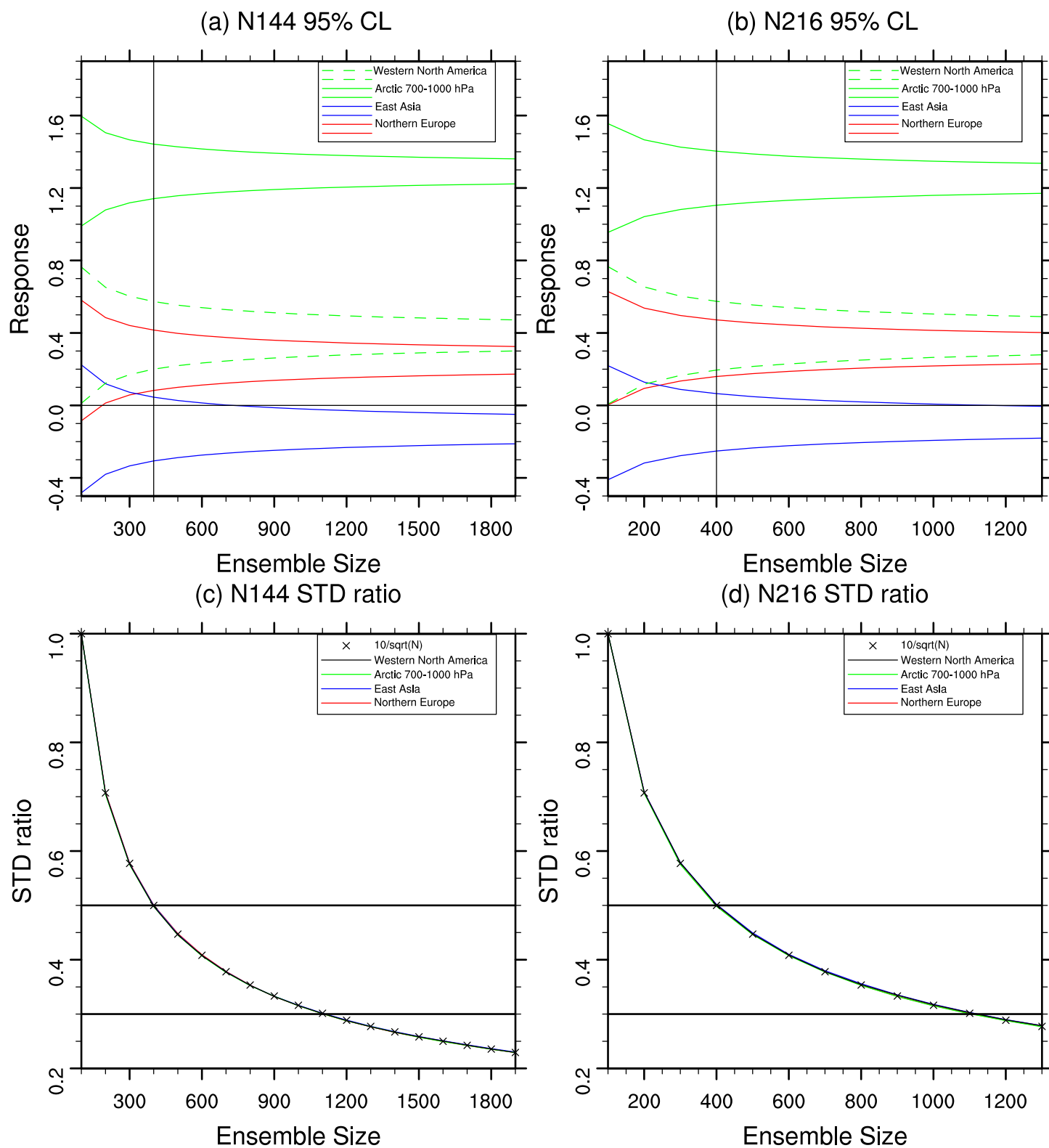


Figure 4. As in main Figure 8 but for surface air temperature response over other regions. Units: $^{\circ}\text{C}$.

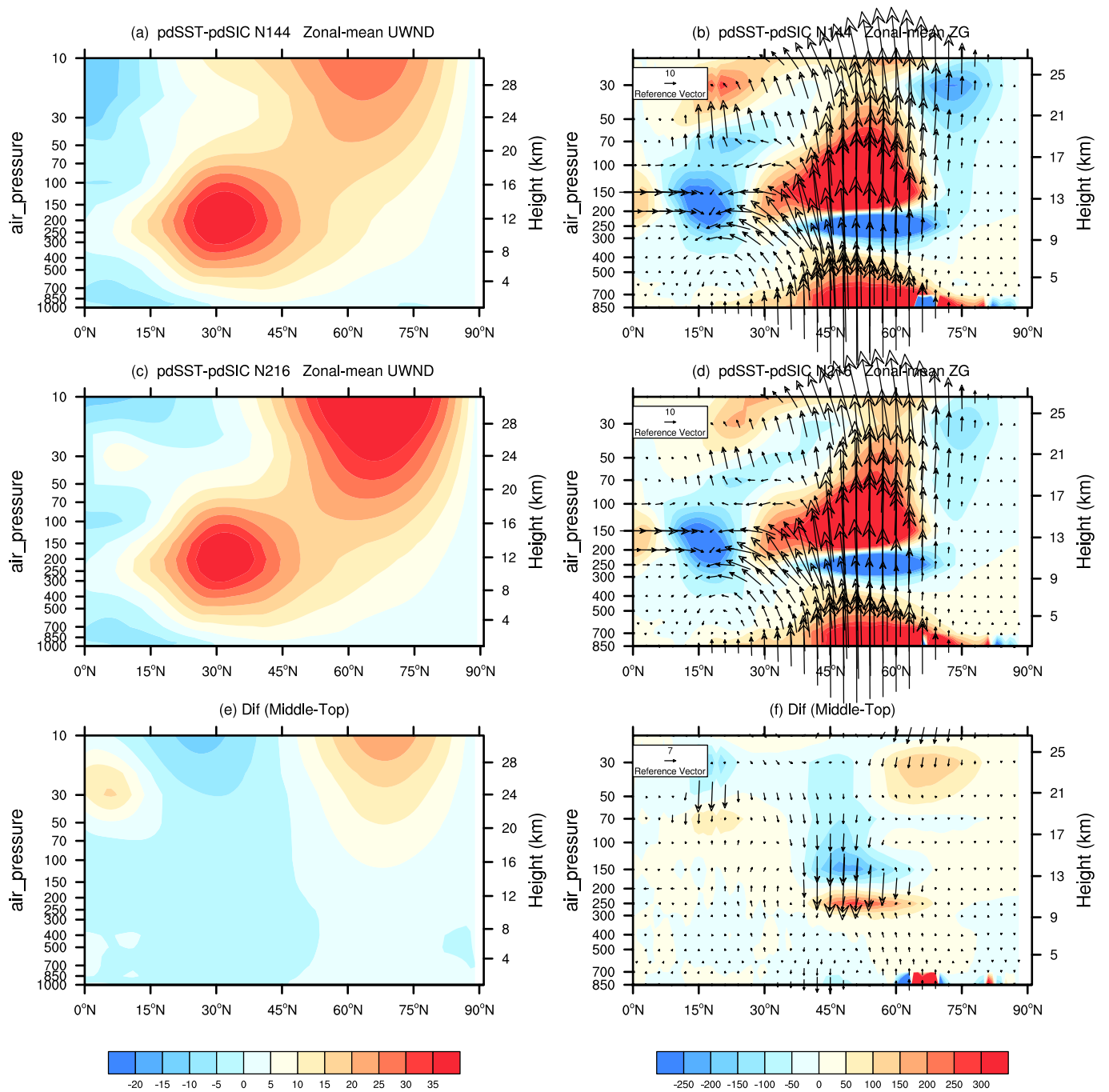


Figure 5. (Left) Ensemble-mean of Zonal-mean zonal wind computed for pdSST-pdSIC experiment for (a,) N144, (c) N216 and (e) their differences (N216 minus N144). (Right) As in left but for Eliassen-palm flux (vectors) and its divergence (shading). Units: m/s , m^3s^{-2} and 10^{-5}ms^{-2} for zonal wind, Eliassen-palm flux and its divergence, respectively.

DJF-mean response

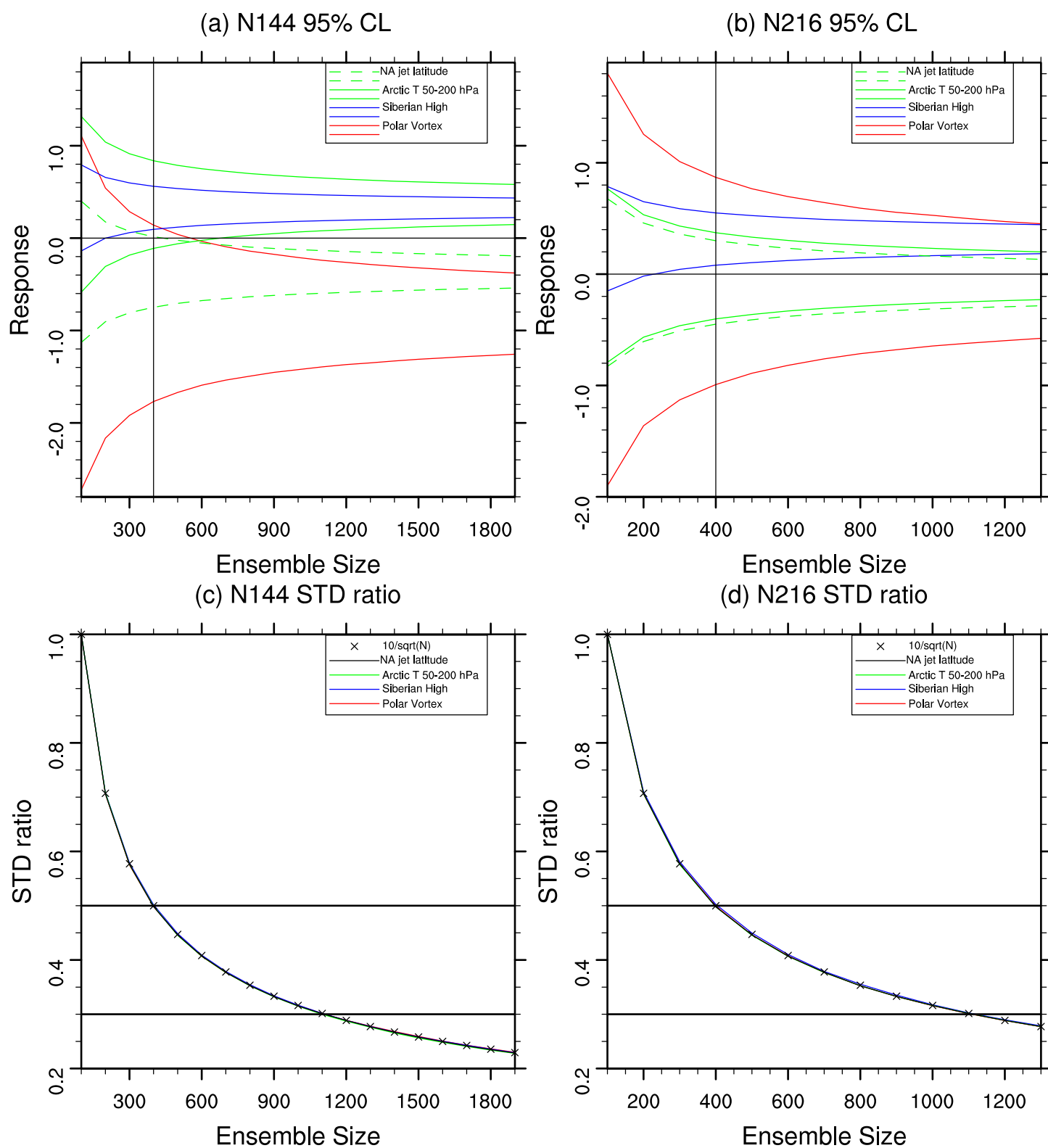


Figure 6. As in main Figure 8 but for North Atlantic jet latitude, Arctic upper-level temperature, Siberian High and Polar vortex response. Units: latitude degrees, °C, hPa and m/s, respectively, for the four variables.