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Supplement of

Warm conveyor belts in present-day and future climate simulations – Part 1: Climatology and impacts

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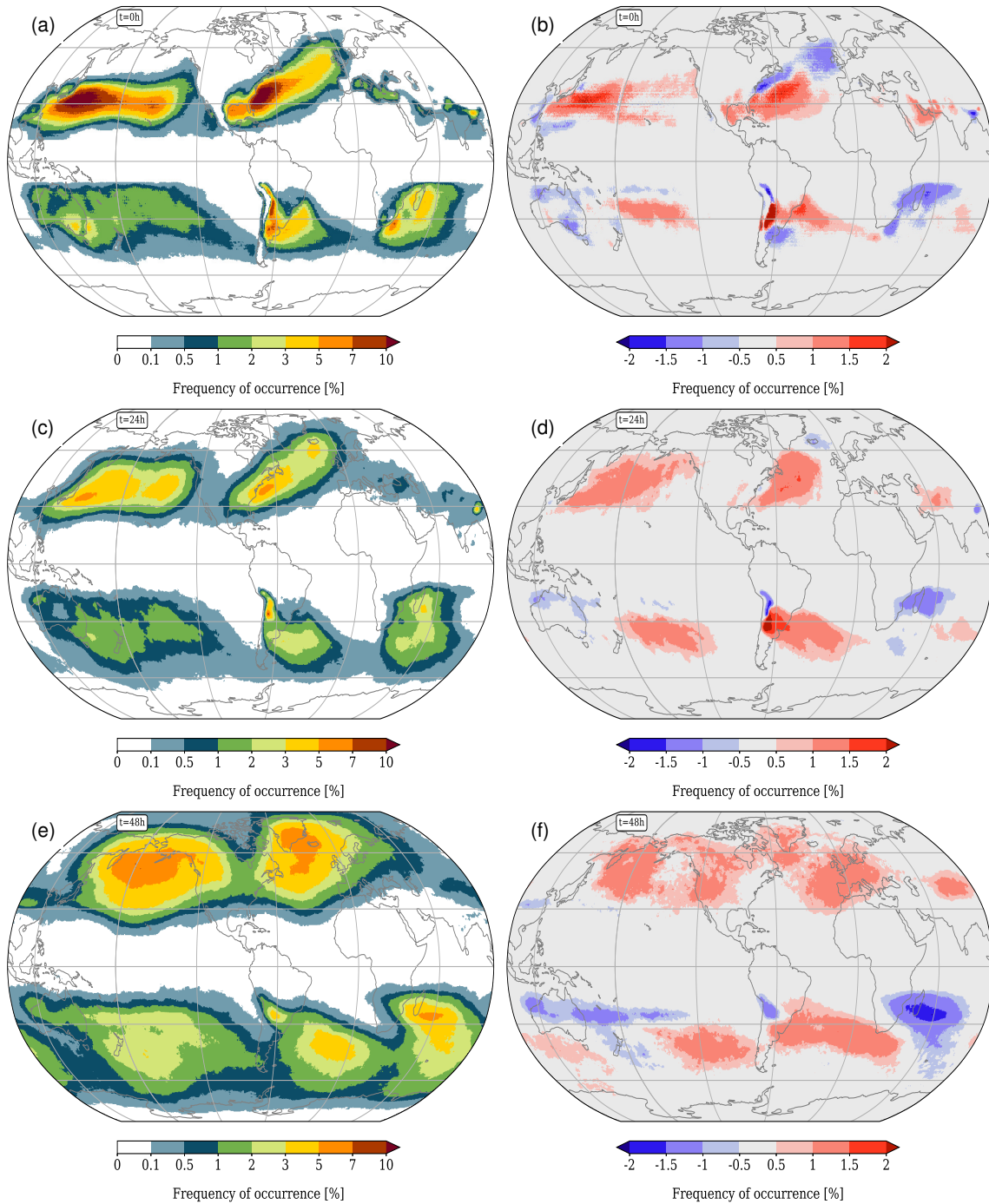


Figure S1. Absolute values of WCB frequency (in %) for ERA-Interim (a, c, e) and difference ERA-Interim - HIST during boreal winter (DJF) for WCB ascent times $t=0$ h (a, b), $t=24$ h (c, d), $t=48$ h (e, f).

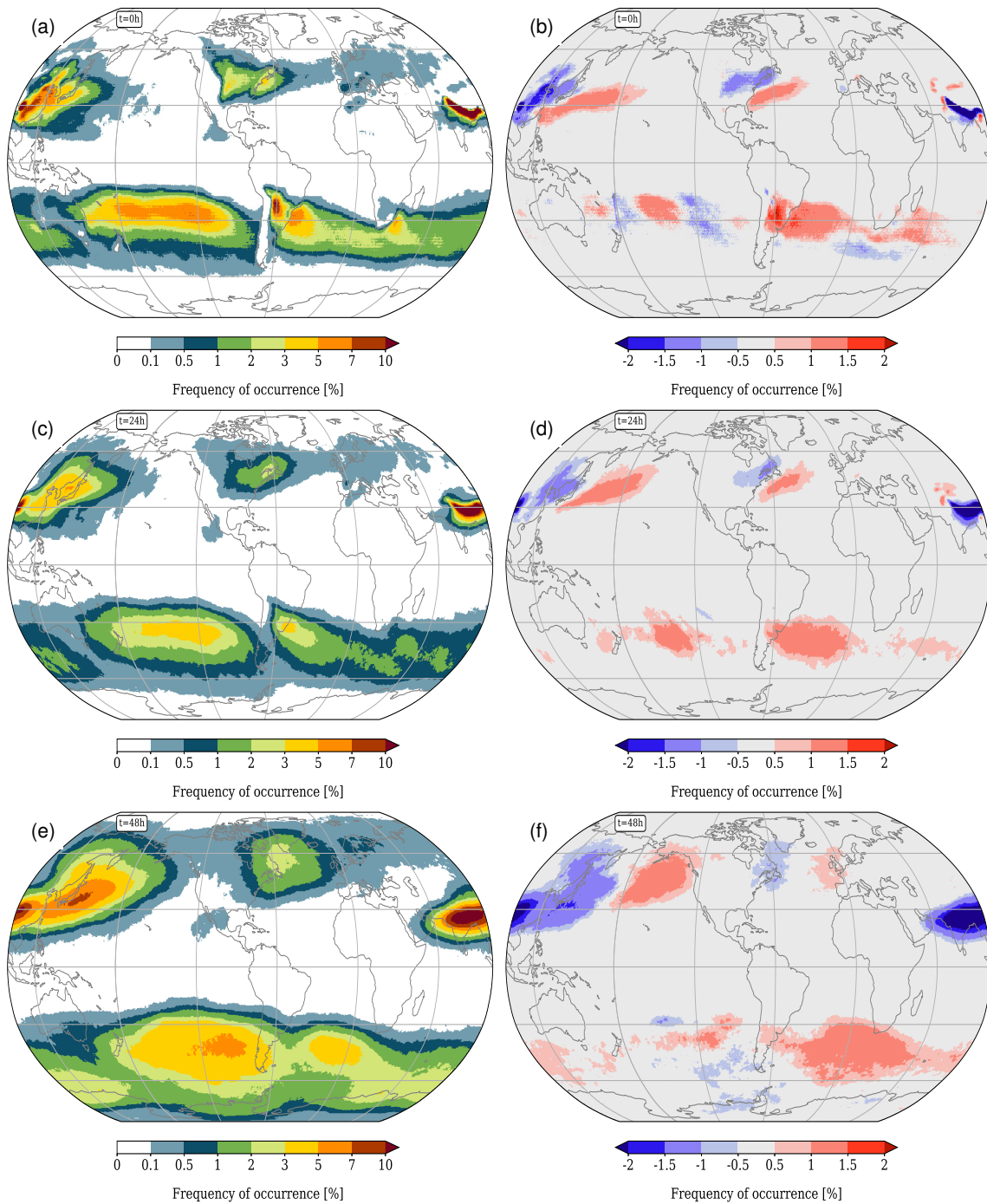


Figure S2. As in Figure S1, but for JJA.

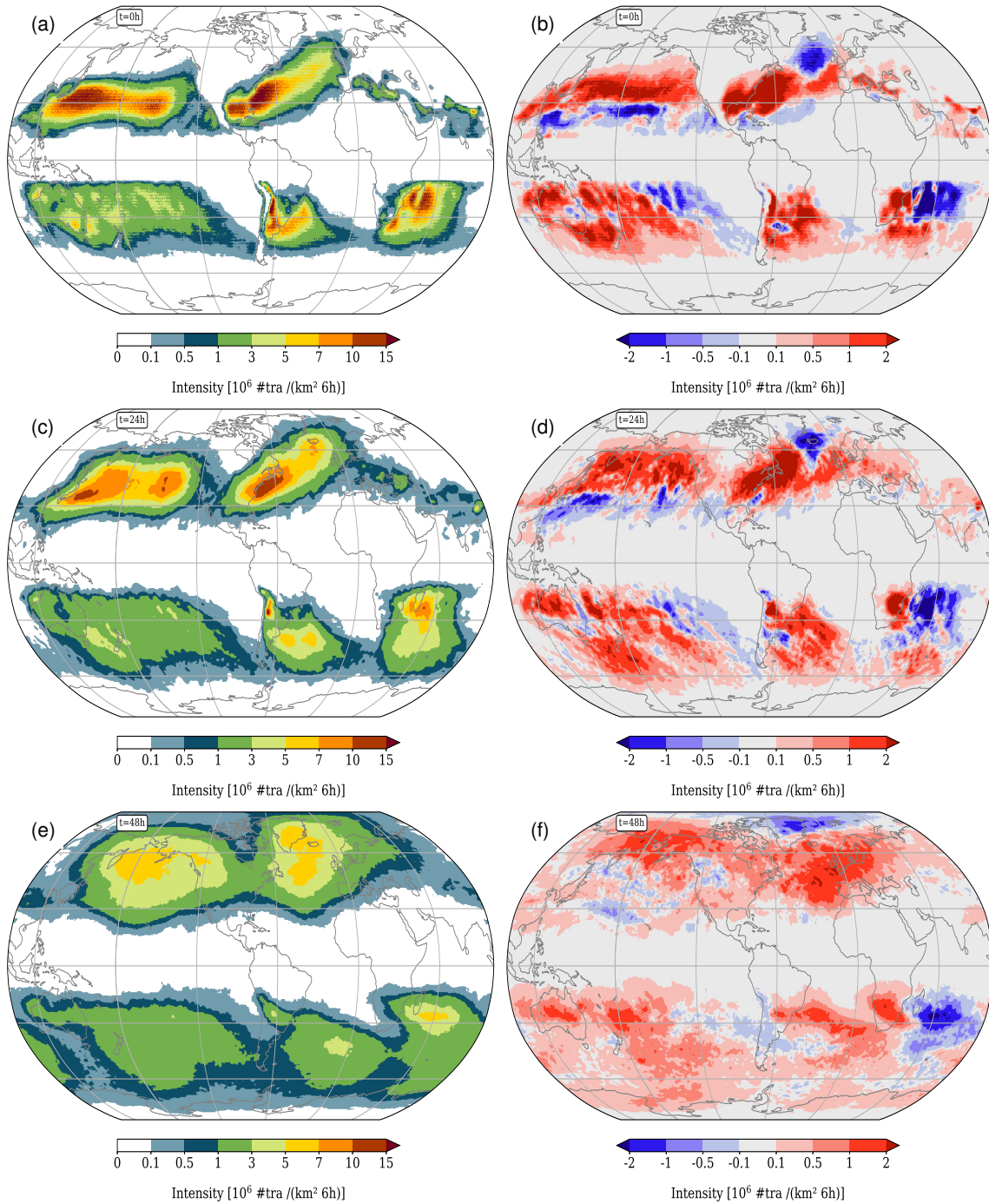


Figure S3. Absolute values of WCB intensity (in #trajectories / (km² 6h)) of HIST (a,c,e) and difference between RCP85 and HIST during boreal winter (DJF) for WCB ascent times $t=0$ h (b), $t=24$ h (d), $t=48$ h (f).

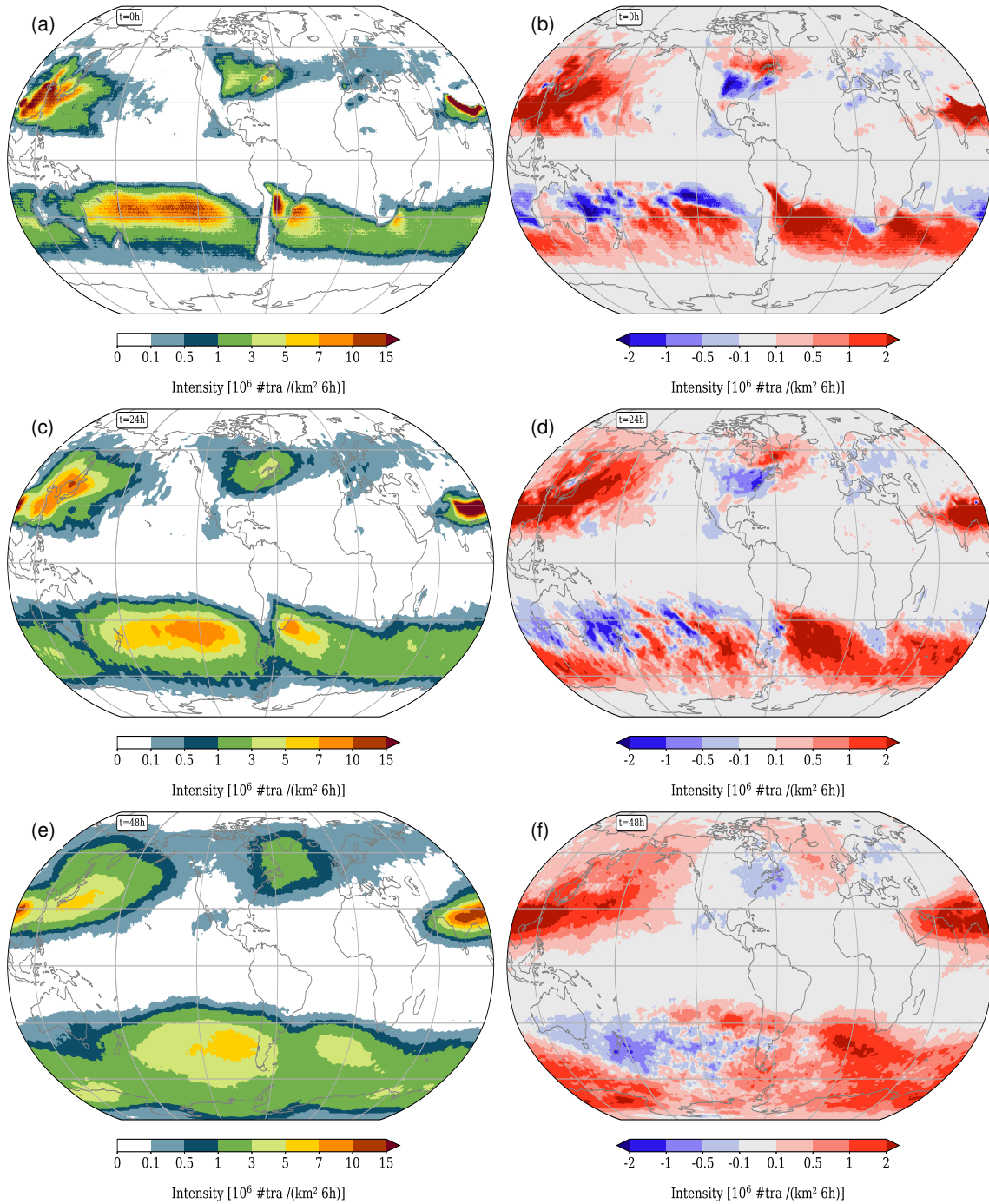


Figure S4. As in Figure S3, but for JJA.

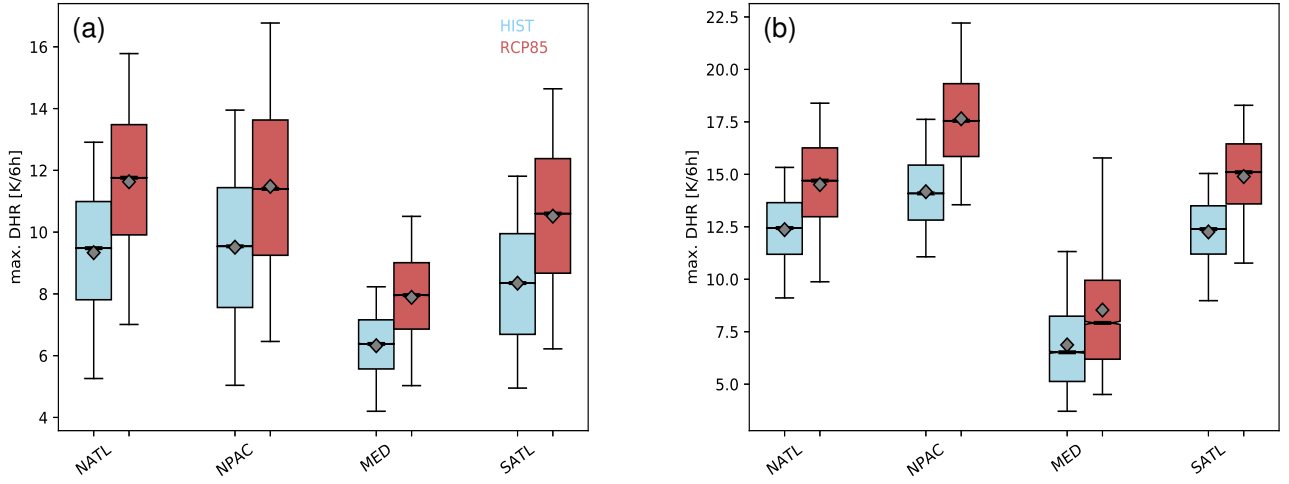


Figure S5. Box-and-whisker (BW) plot for the amplitude of maximum diabatic heating ($K(6h)^{-1}$) along the WCB trajectories. The BW bars are split according to region: North Atlantic (NATL), North Pacific (NPAC), Mediterranean (MED) and South America (SATL). The results for HIST are shown in blue bars, for RCP85 in red bars. In panel (a) winter is considered, i.e., DJF for NATL, NPAC and MED, and JJA for SATL, and in (b) correspondingly summer (note the different scales in the two panels). The BW bars show: lower-to-upper quartile range (colored bar), median (bold black line), mean (diamond), 5th-to-95th percentile range (thin lines).