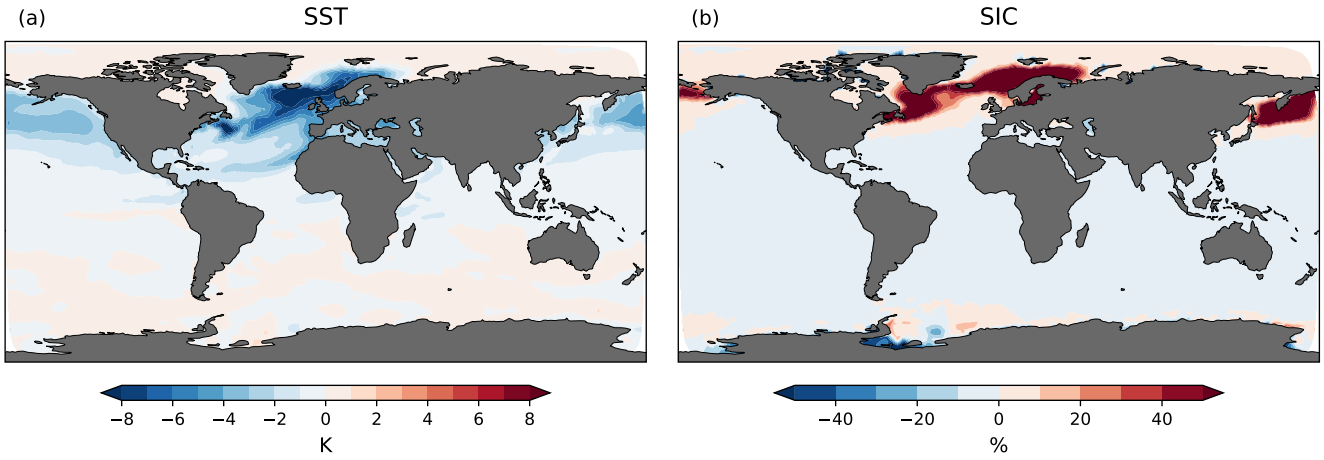

Figure S1. SST and sea-ice cover response to a 600 % AMOC slowdown. Simulated annual mean changes in (a) Sea Surface Temperature (SST) and (b) Sea Ice Concentration (SIC). All changes represent the annual mean difference between the freshwater-hosing experiment and the control simulation performed with the EC-Earth3 climate model.

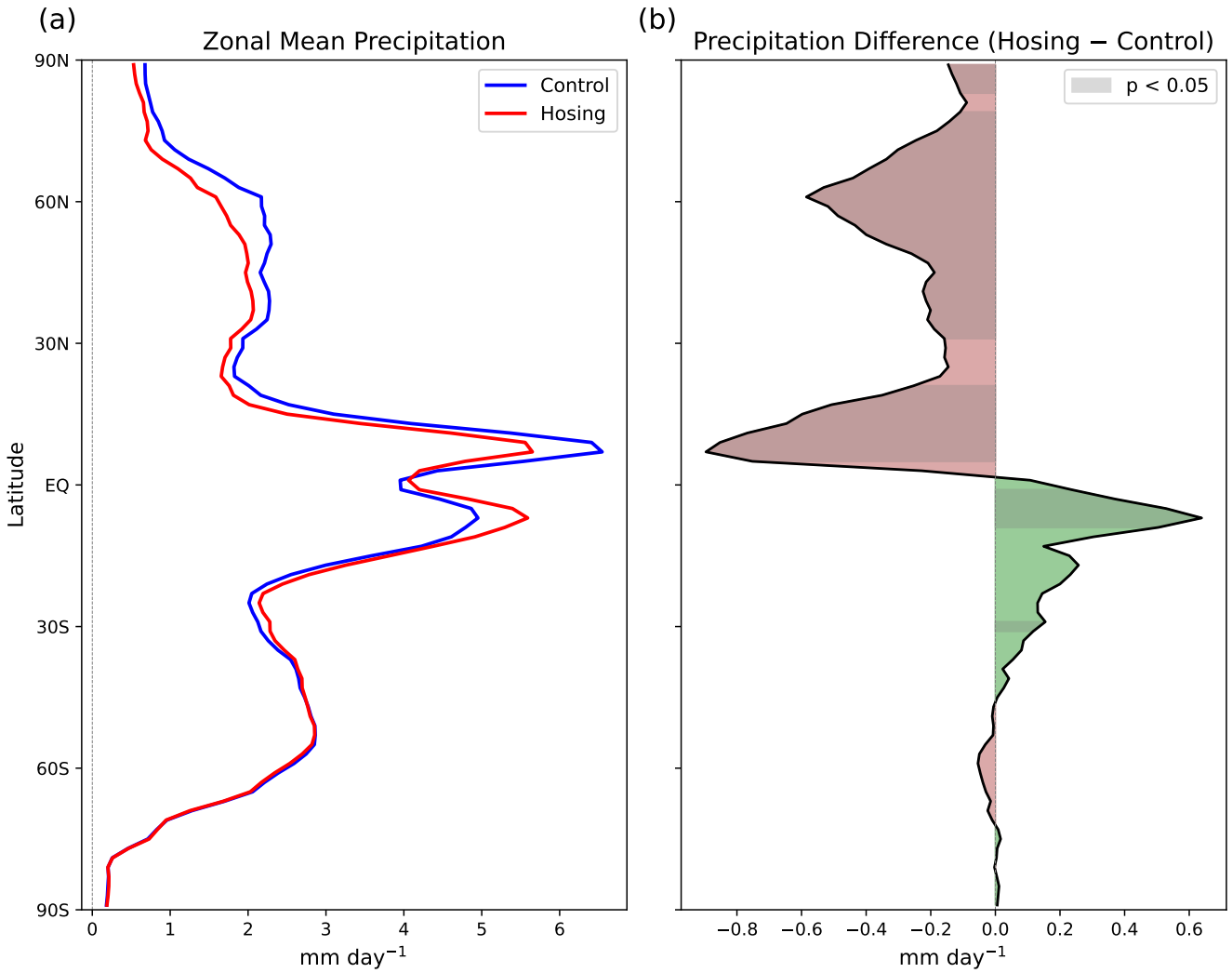

Figure S2. (a) Zonal mean precipitation as a function of latitude for the Control (blue line) and Hosing (red line) experiments. (b) Zonal mean precipitation difference (Hosing − Control. The shaded area under the curve illustrates the magnitude and direction of the change, with green and brown indicating positive and negative differences, respectively. The grey horizontal shaded bands denote latitudes where the precipitation difference is statistically significant ($p < 0.05$).

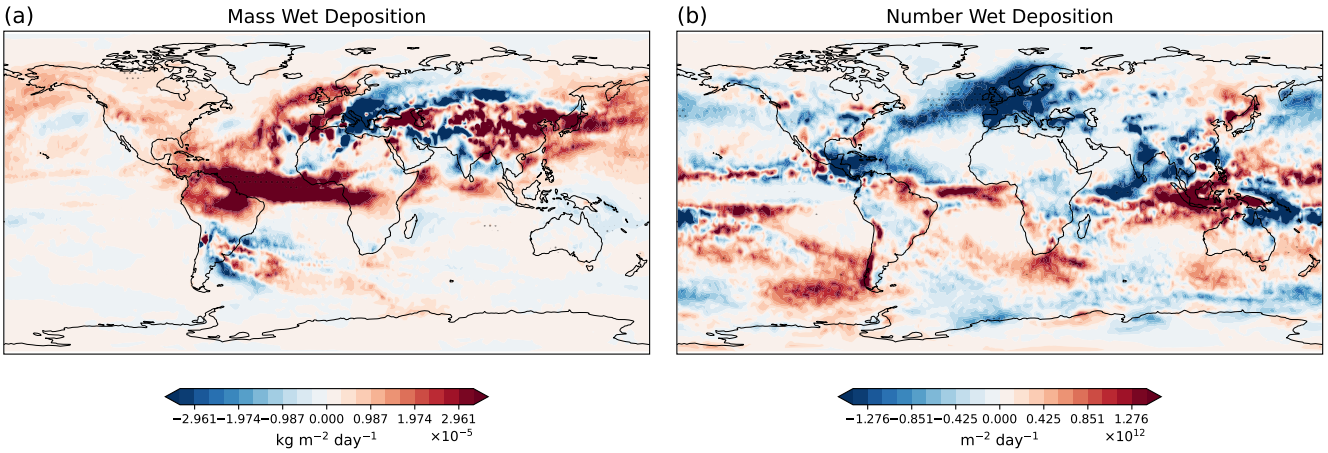

Figure S3. Global anomalies in (a) total aerosol mass, and (b) aerosol number wet deposition. Stippled regions indicate areas where the changes are statistically significant.

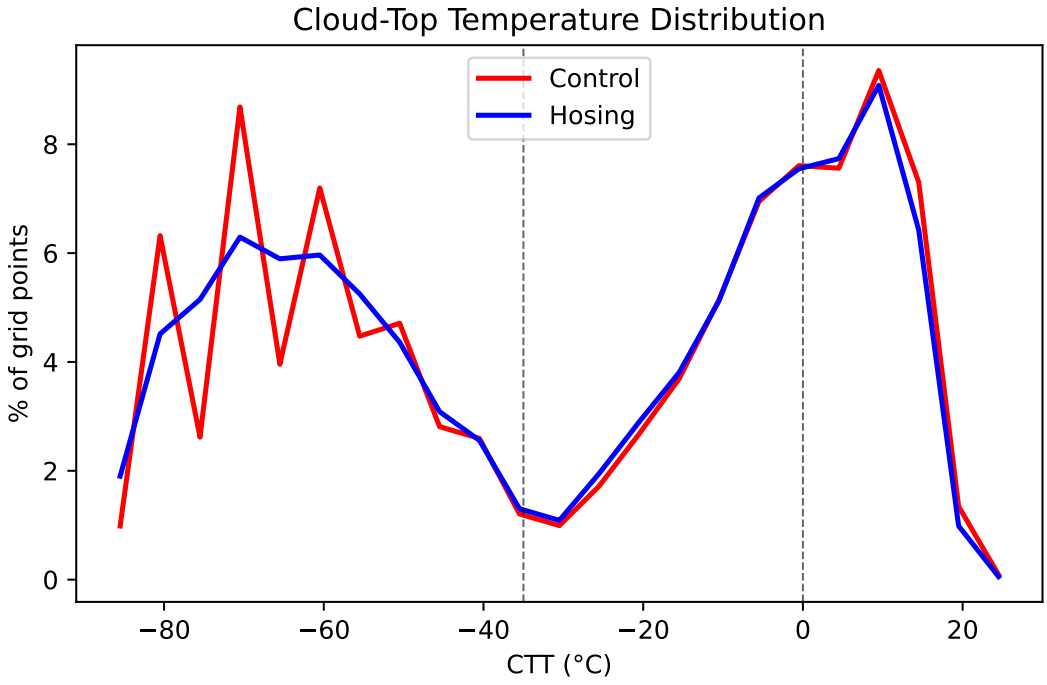

Figure S4. Normalised distribution of cloud-top temperature (CTT) for the Control (red) and Hosing (blue) simulations, expressed as a percentage of total cloudy grid points. Cloud-top temperature is diagnosed as the temperature at the highest model level where total water content exceeds 10^{-6} kg kg^{-1}. Data are binned in 5 °C intervals from daily instantaneous output over 2000–2009.