Supplement

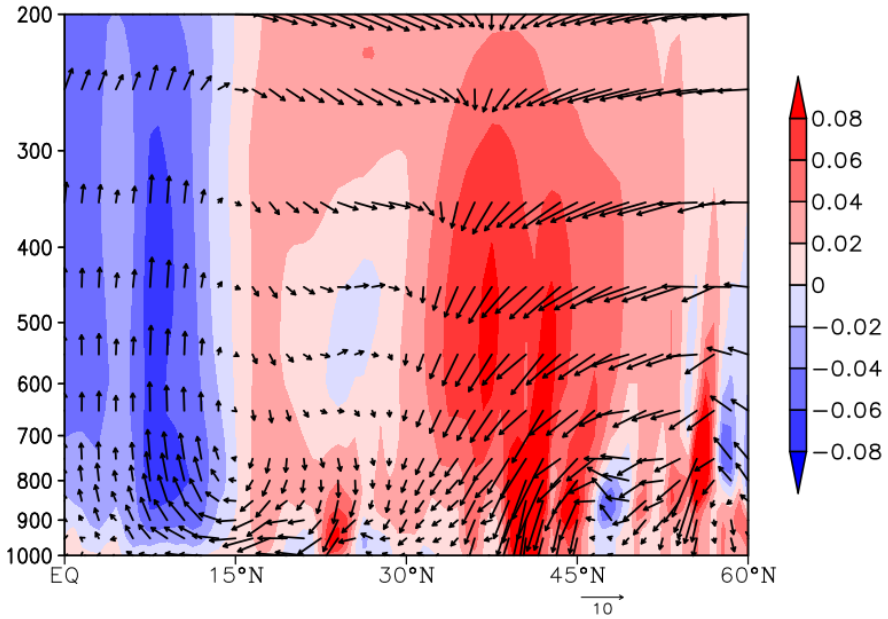

Figure S1. The 1979-2010 climatology of the local meridional circulation (114°-120°E mean). Omega, shading, units: $Pa \cdot s^{-1}$; wind, arrow, omega magnified 100 times, units: $m \cdot s^{-1}$. To make the horizontal velocity and the vertical velocity in the same order, the vertical velocity (omega) here is magnified 100 times.