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Atmospheric water transport connectivity within and between ocean basins and land

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Text S1: Figure S1 (top) shows the global residence time (calculated using equation 6) of the atmospheric waters mapped at their net evaporative points. This indicates how long an atmospheric water parcel will stay in the atmosphere when it evaporates from a particular region before falling down as precipitation. The areas of low (high) evaporation residence time coincide mostly with regions of low (high) evaporation. For instance, over the Inter Tropical Convergence Zone (ITCZ) and over the mid- to high latitude areas the residence time of evaporation is less than 5 days, while the residence time of evaporation is more than 15 days over the subtropical oceans and over the land desert areas. Figure S1 (bottom) shows the global residence time of the atmospheric waters mapped at their net precipitating points. This indicates how long an atmospheric water parcel stayed in the atmosphere before falling down as precipitation at a particular location. The low precipitation residence time mostly corresponds with areas of low precipitation (e.g., at the subtropical ocean and at the Arabian Sea precipitation points the residence time of atmospheric water is less than 3 days).

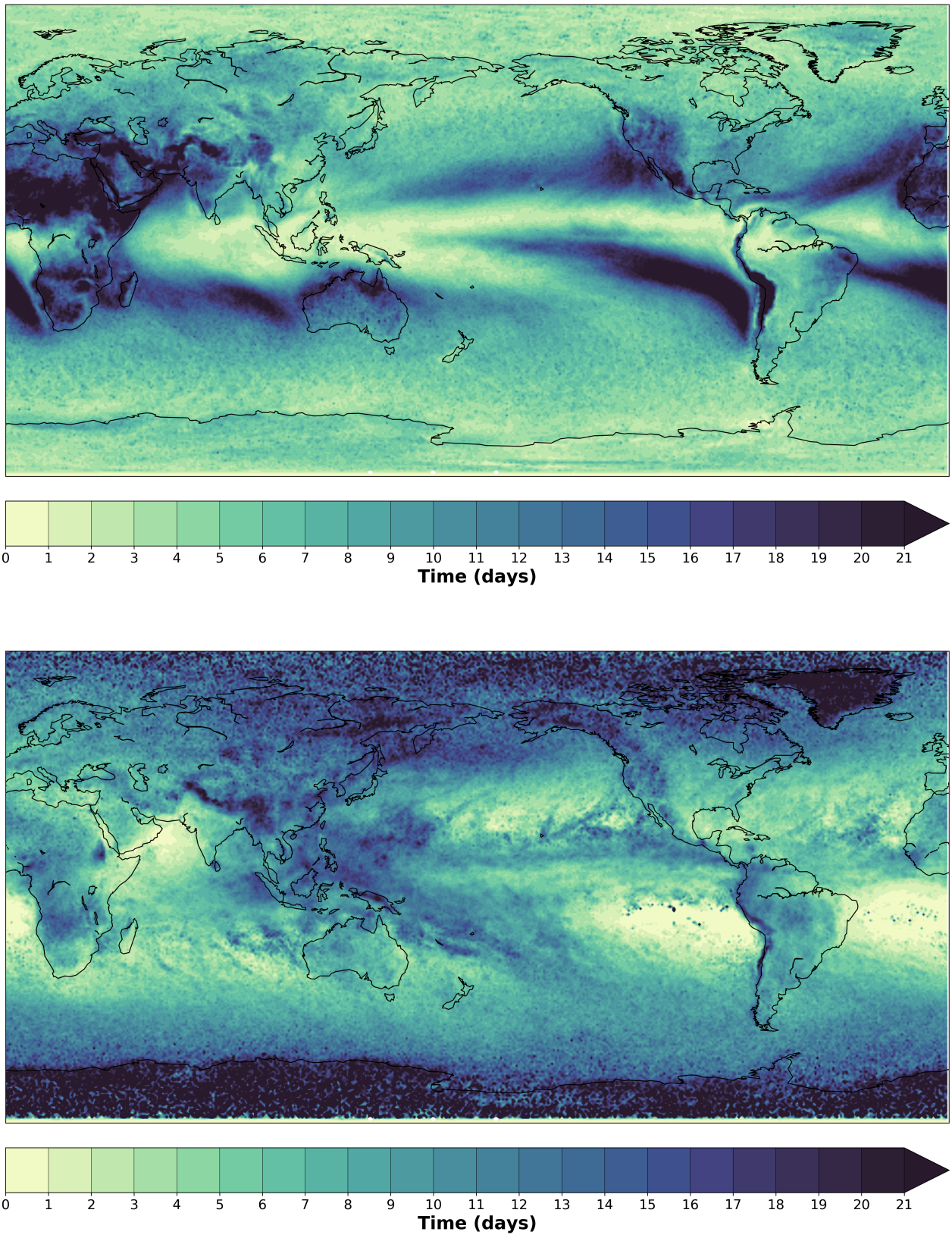

Figure S1. Global residence time (in days) of the atmospheric waters mapped on their net evaporative (top) and precipitating regions (bottom). This has been calculated from the time the trajectories have spent in the atmosphere between its evaporation and precipitation points.