



Supplement of

Classification of large-scale environments that drive the formation of mesoscale convective systems over southern West Africa

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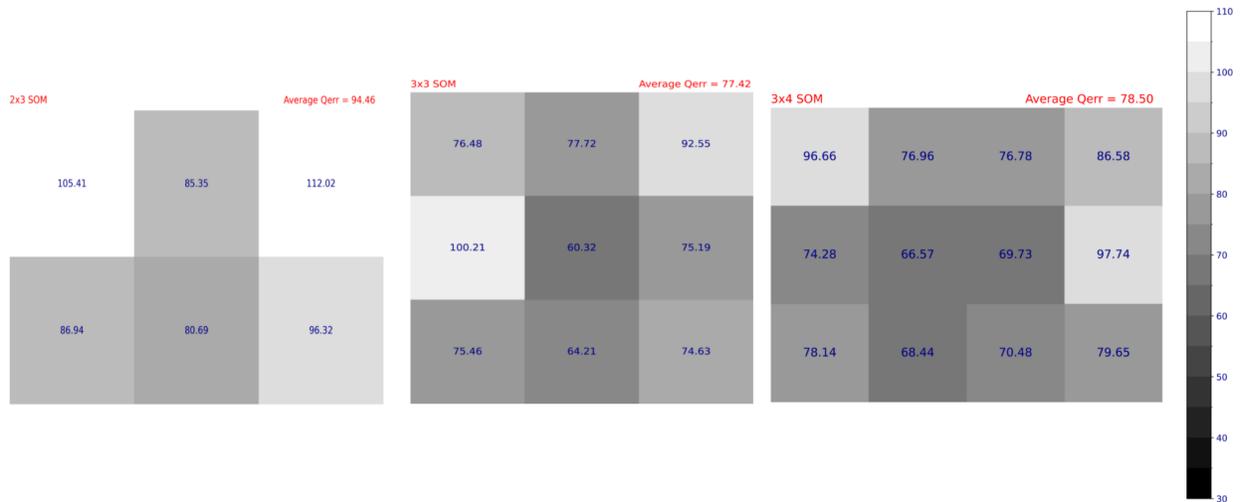


Figure. S1. Total quantization error (gpm) of all grid points in the geopotential height patterns mapped to each SOM node.

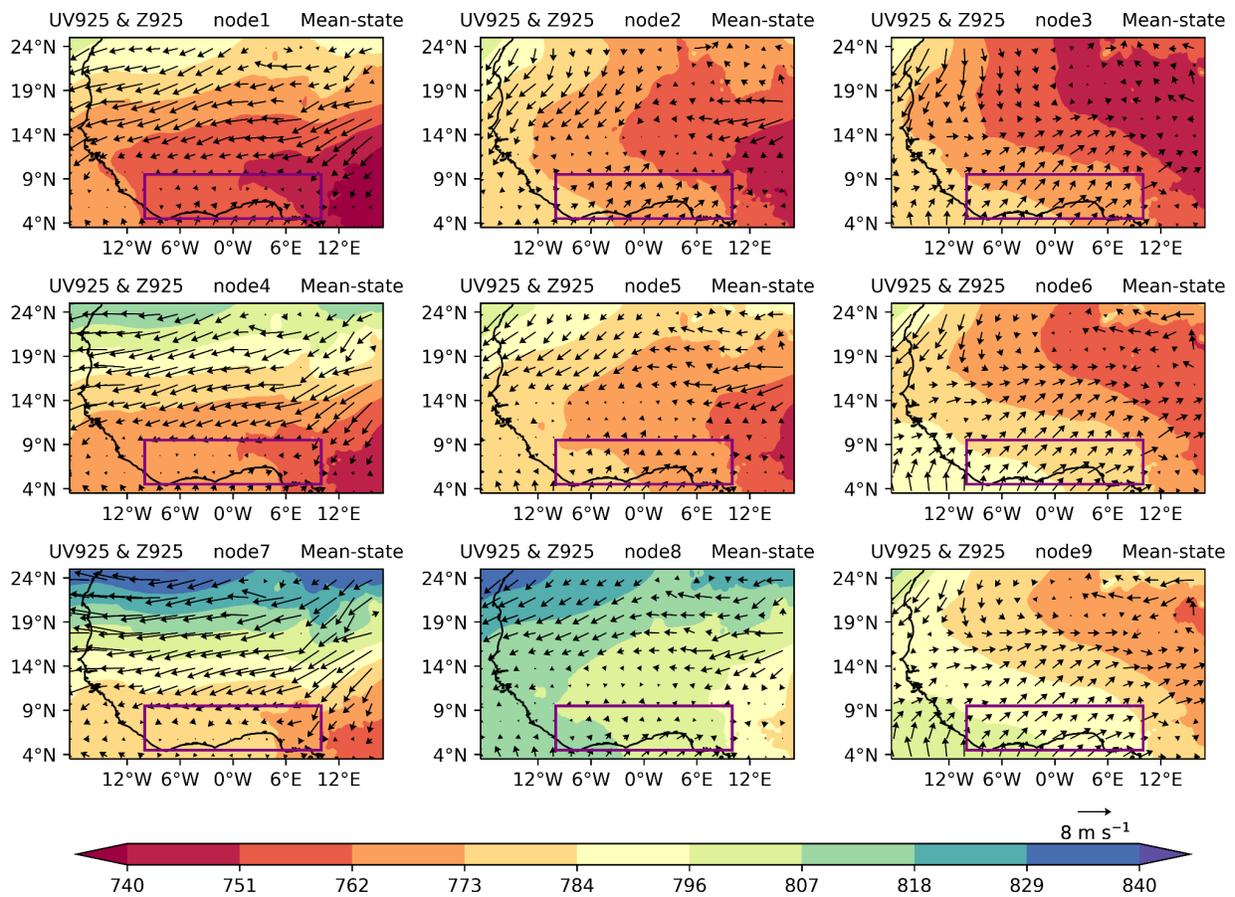


Figure. S2. 12 UTC composites of 925-hPa geopotential height (shading; gpm) and 925-hPa winds (vectors; m s^{-1}) in 9 nodes based on SOM analysis. The purple box depicts the SWA region (5° – 9° N, 10° W– 10° E)

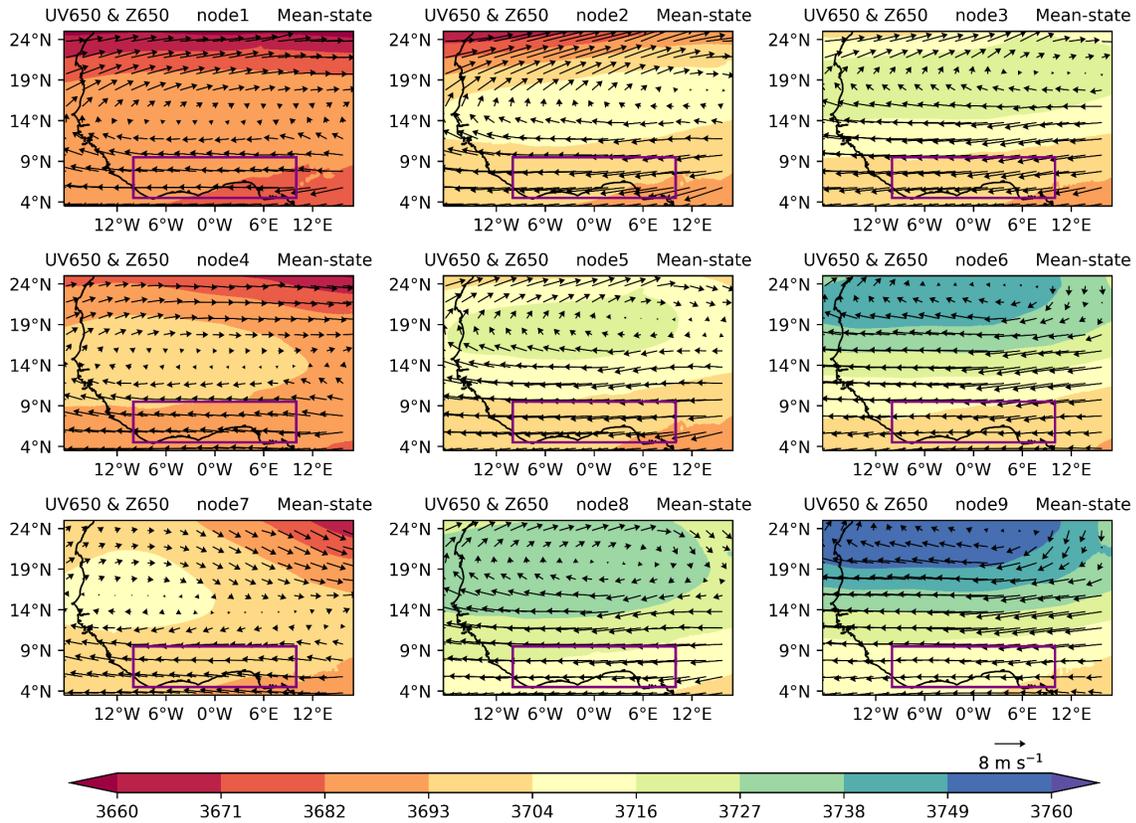


Figure. S3. 12 UTC composites of 650-hPa geopotential height (shading; gpm) and 650-hPa winds (vectors; m s^{-1}) in 9 nodes based on SOM analysis. The purple box depicts the SWA region (5°–9°N, 10°W–10°E)

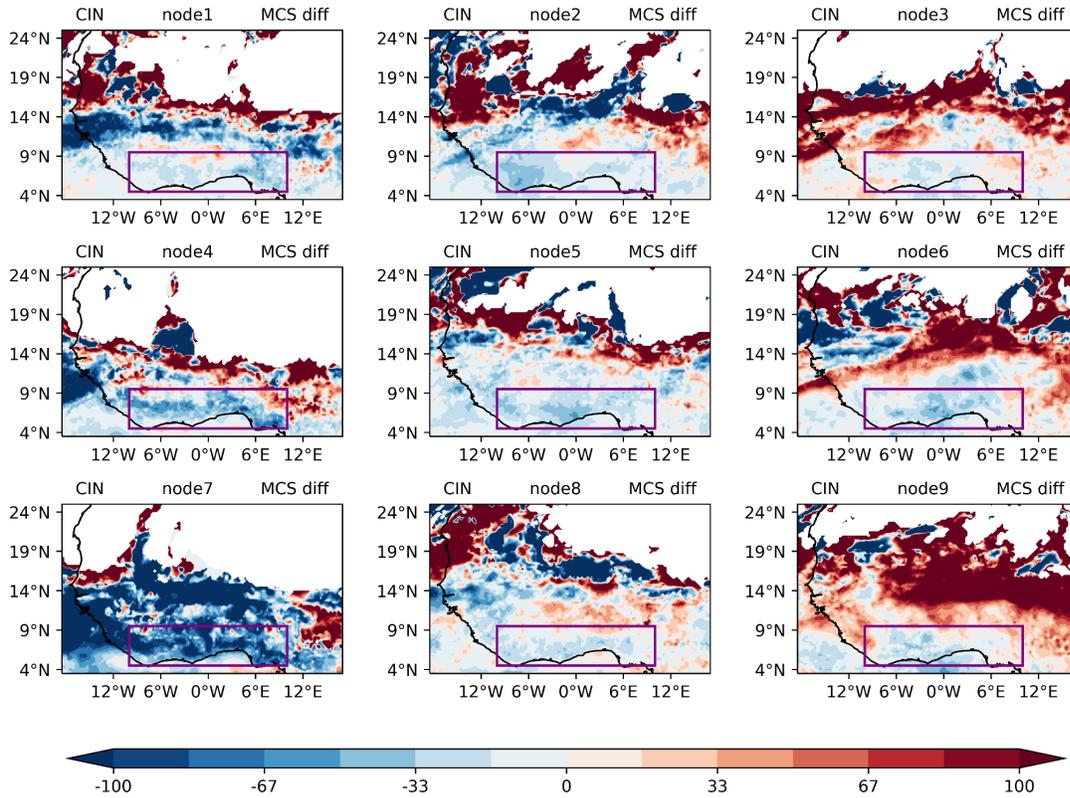


Figure. S4. 12 UTC composite anomalies of CIN for MCSs occurring in each type of large-scale environment determined by the SOM analysis over SWA. CIN anomalies are shown when they are significant at the 5% level.

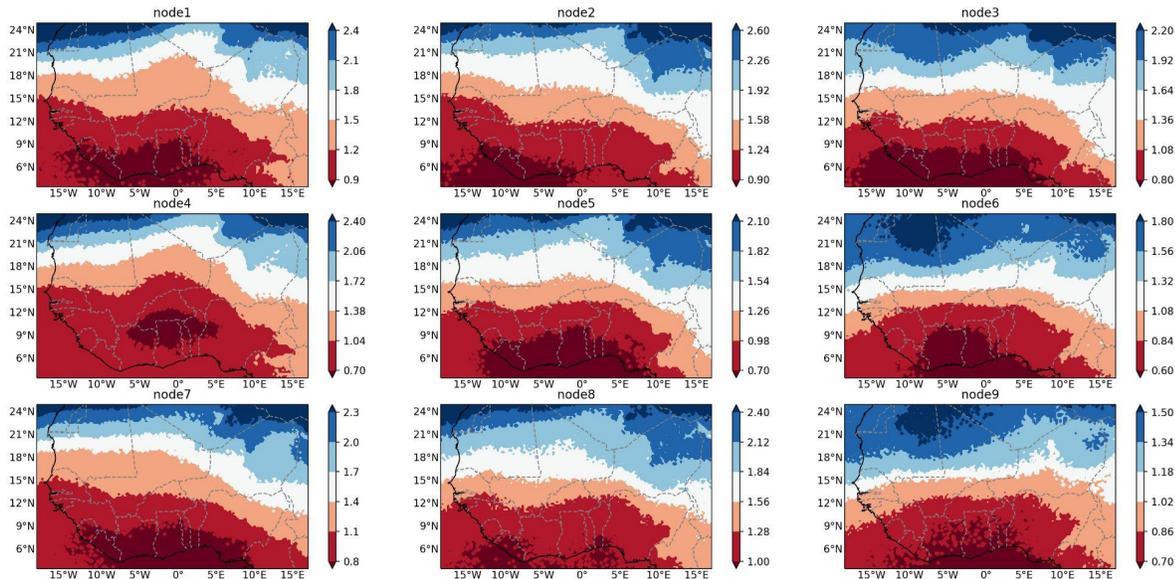


Figure. S5. 12 UTC 925-hPa geopotential height 95% confidence interval widths (shading; gpm) based on bootstrapping with 5000 resamples for the 9 node day groups based on the SOM analysis.