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Supplement of

Dynamic and thermodynamic contribution to the October 2019 exceptional rainfall in western central Africa

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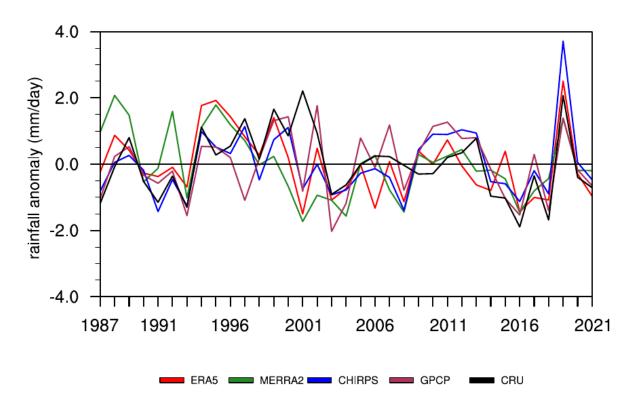


Fig. S1 Temporal evolution of October rainfall anomaly over West Central Africa (6°N-14°N, 6°-20°E), from reanalysis data ERA5 (red), MERRA2 (forestgreen) and from observational data CHIRPS (blue), GPCP (maroon) and CRU (black), covering the period 1987–2021.

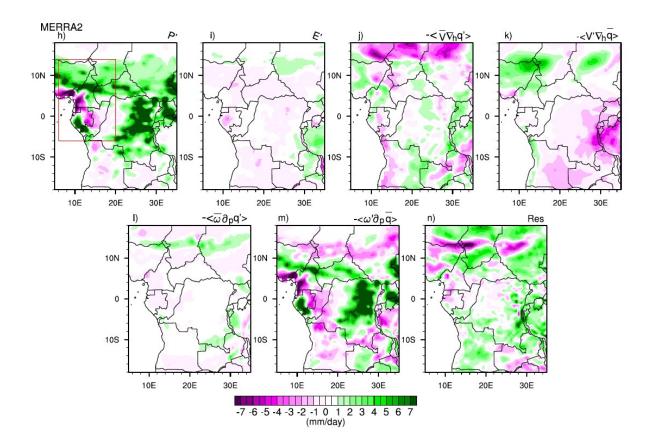


Fig. S2 Spatial distributions of each term of the water budget equation during October 2019 over West Equatorial Africa (Red box) from MERRA2. (a) Precipitation anomalies, (b) evaporation anomaly, (c) horizontal advection of anomalous moisture by climatological wind, (d) horizontal advection of climatological moisture by anomalous wind, (e) vertical advection of anomalous moisture by climatological vertical velocity, (f) vertical advection of climatological moisture by anomalous vertical velocity and (g) the residual term.