

# Supporting Information for "The Effect of Pseudo-Global Warming on the Weather-Climate System of Africa in a Convection-Permitting Model"

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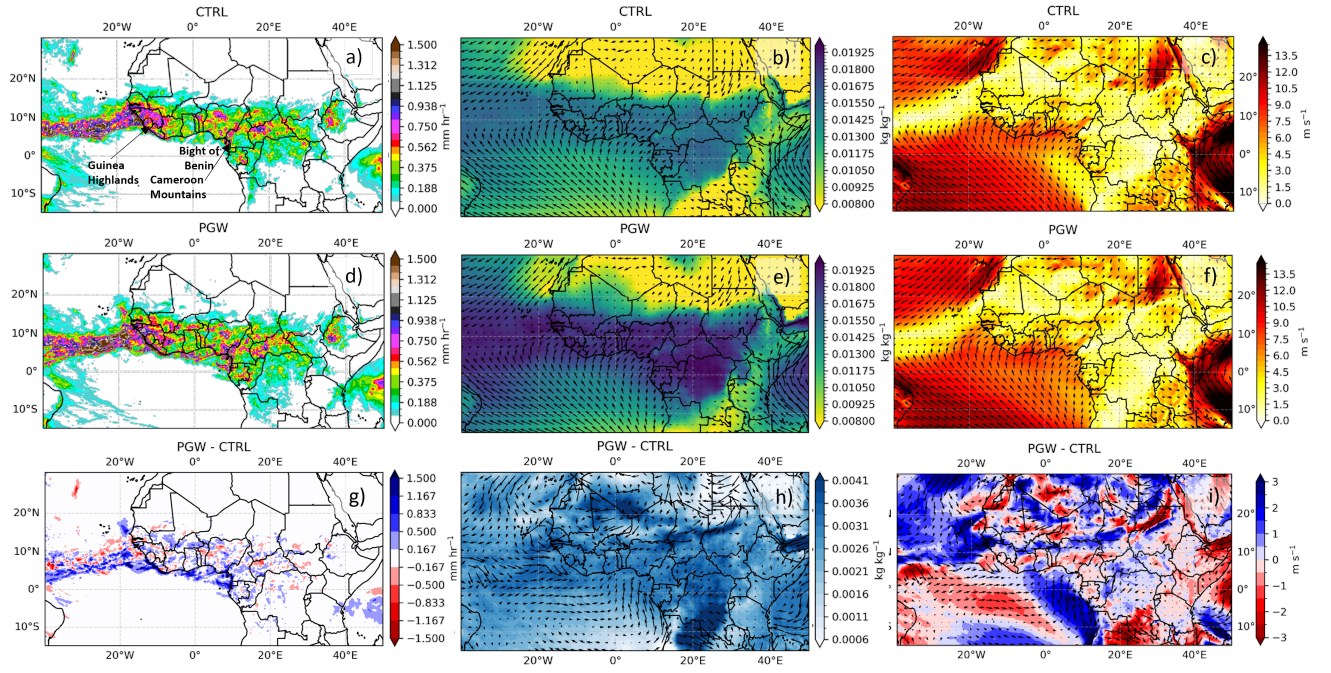
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## Contents of this file

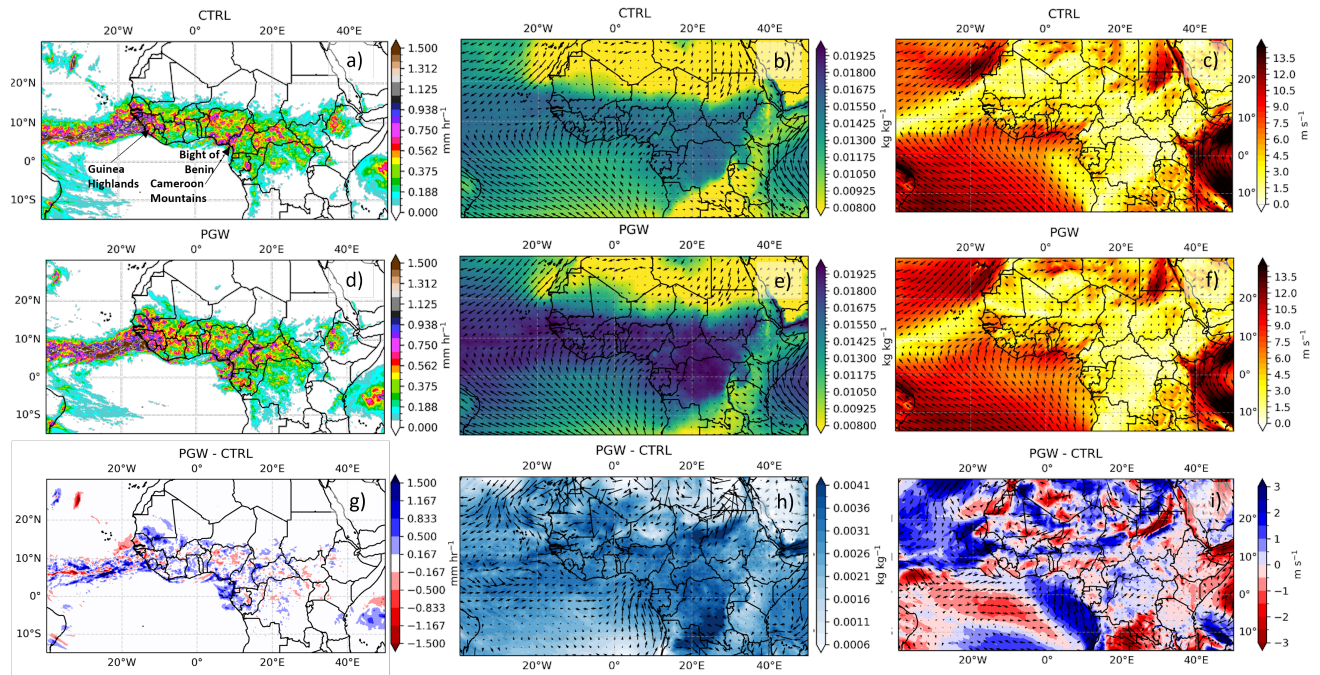
1. Figures S1 to S7

## Introduction

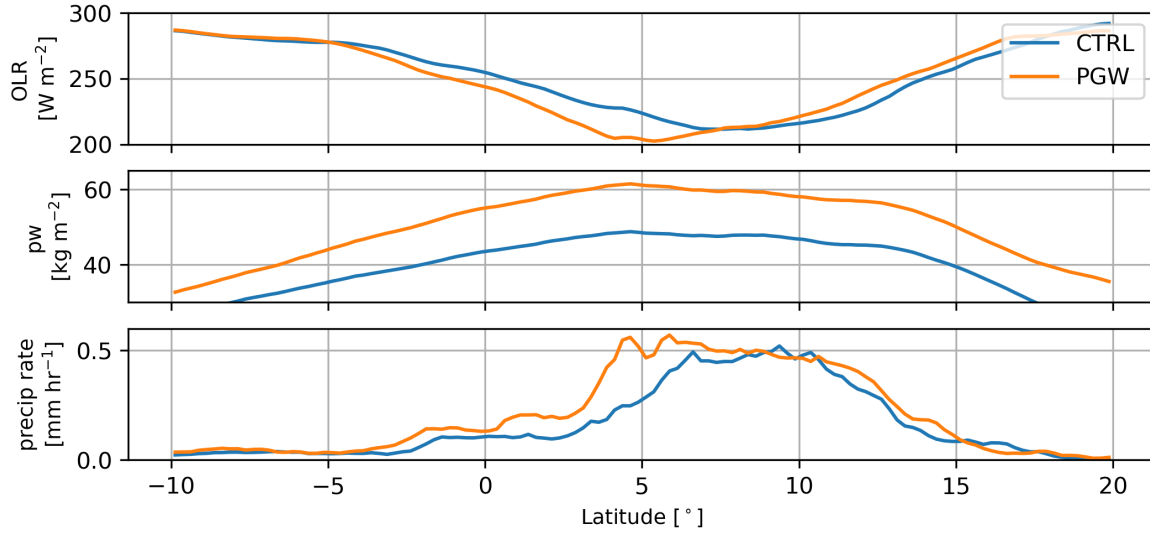
This supporting information includes figures of the analysis for the additional CTRL and PGW model runs initialized on 00 UTC, 5 September 2006 and 00 UTC, 6 September 2006.



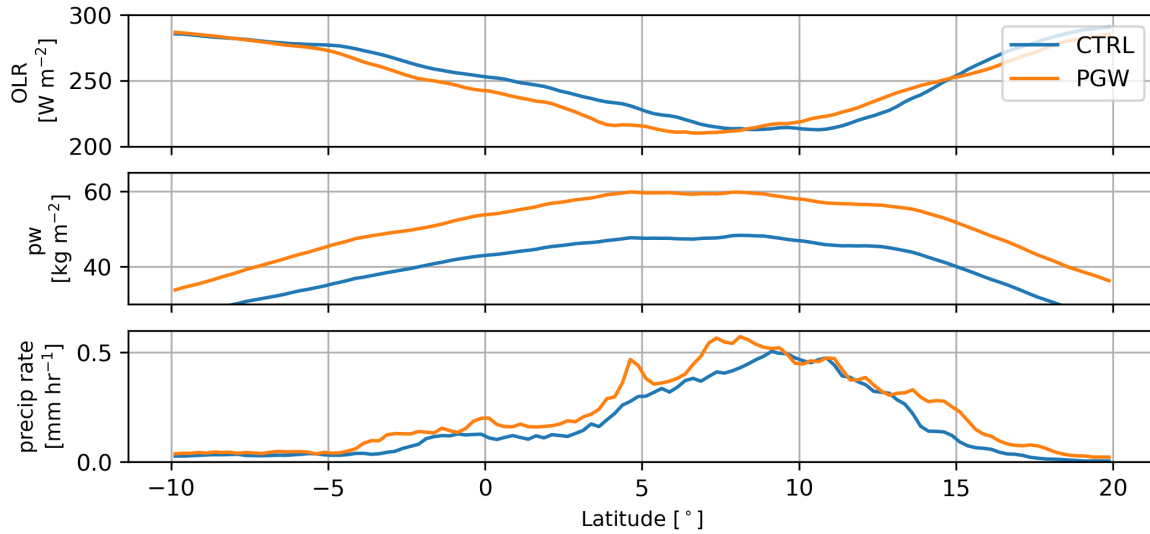
**Figure S1.** Time-averaged precipitation rates, 950-hPa water vapor mixing ratio (shade), and 950-hPa total winds (vectors and shade) initialized on 00 UTC, 5 September 2006 removing the first 24 hours of the simulation for CTRL in (a), (b), and (c), respectively. The same from (d-f) for PGW and from (g-i) for the differences. Labels for Guinea Highlands, Bight of Benin, and the Cameroon Mountains are included in (a) for reference.



**Figure S2.** Time-averaged precipitation rates, 950-hPa water vapor mixing ratio (shade), and 950-hPa total winds (vectors and shade) initialized on 00 UTC, 6 September 2006 removing the first 24 hours of the simulation for CTRL in (a), (b), and (c), respectively. The same from (d-f) for PGW and from (g-i) for the differences. Labels for Guinea Highlands, Bight of Benin, and the Cameroon Mountains are included in (a) for reference.

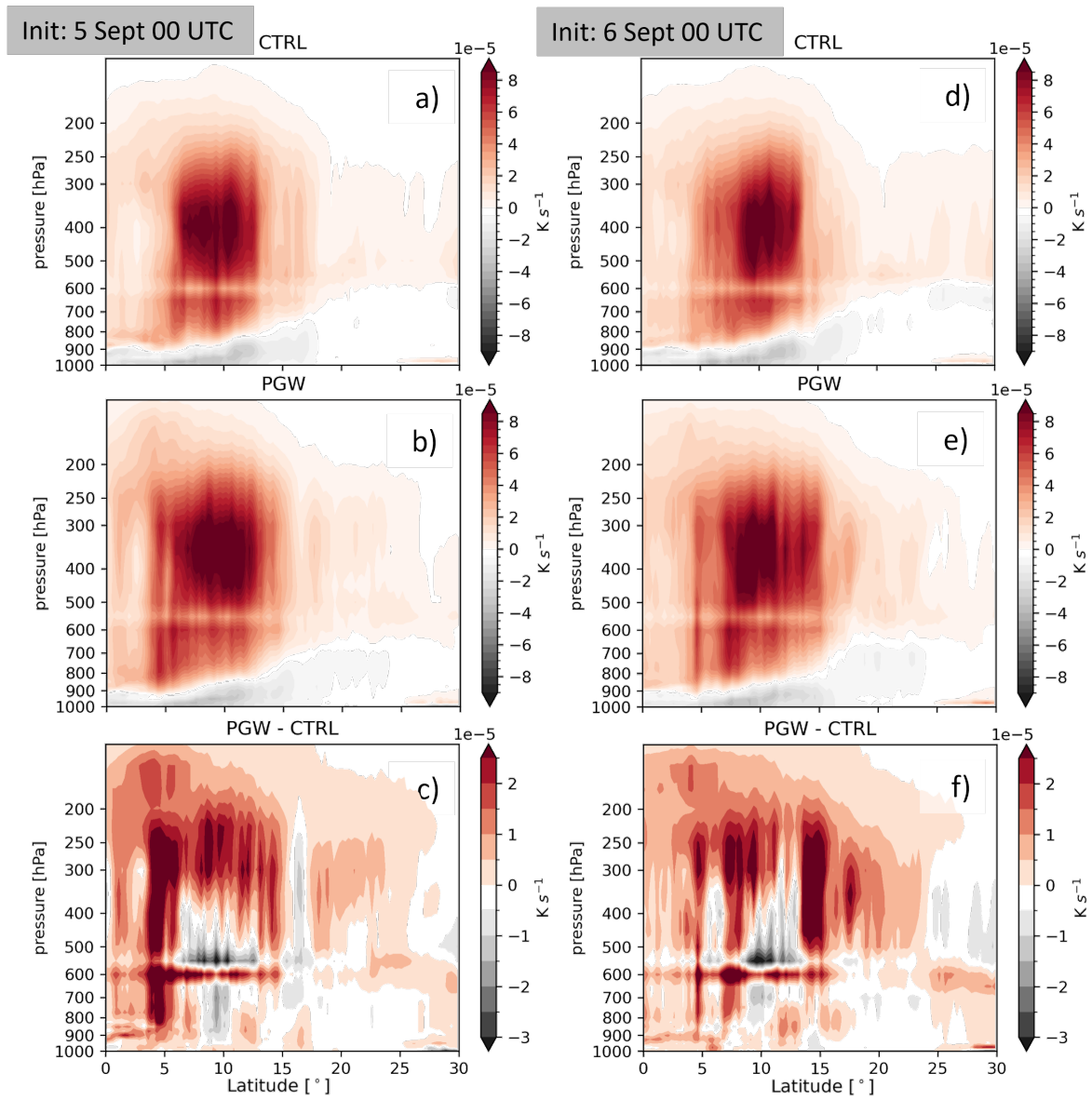


**Figure S3.** Latitude analyses of time-averaged, zonally averaged (top) OLR, (middle) precipitable water (pw), and (bottom) precipitation rate initialized on 00 UTC, 5 September 2006 removing the first 24 hours of the simulation for CTRL (blue lines) and PGW (orange lines). Longitude average taken for the WAM box.

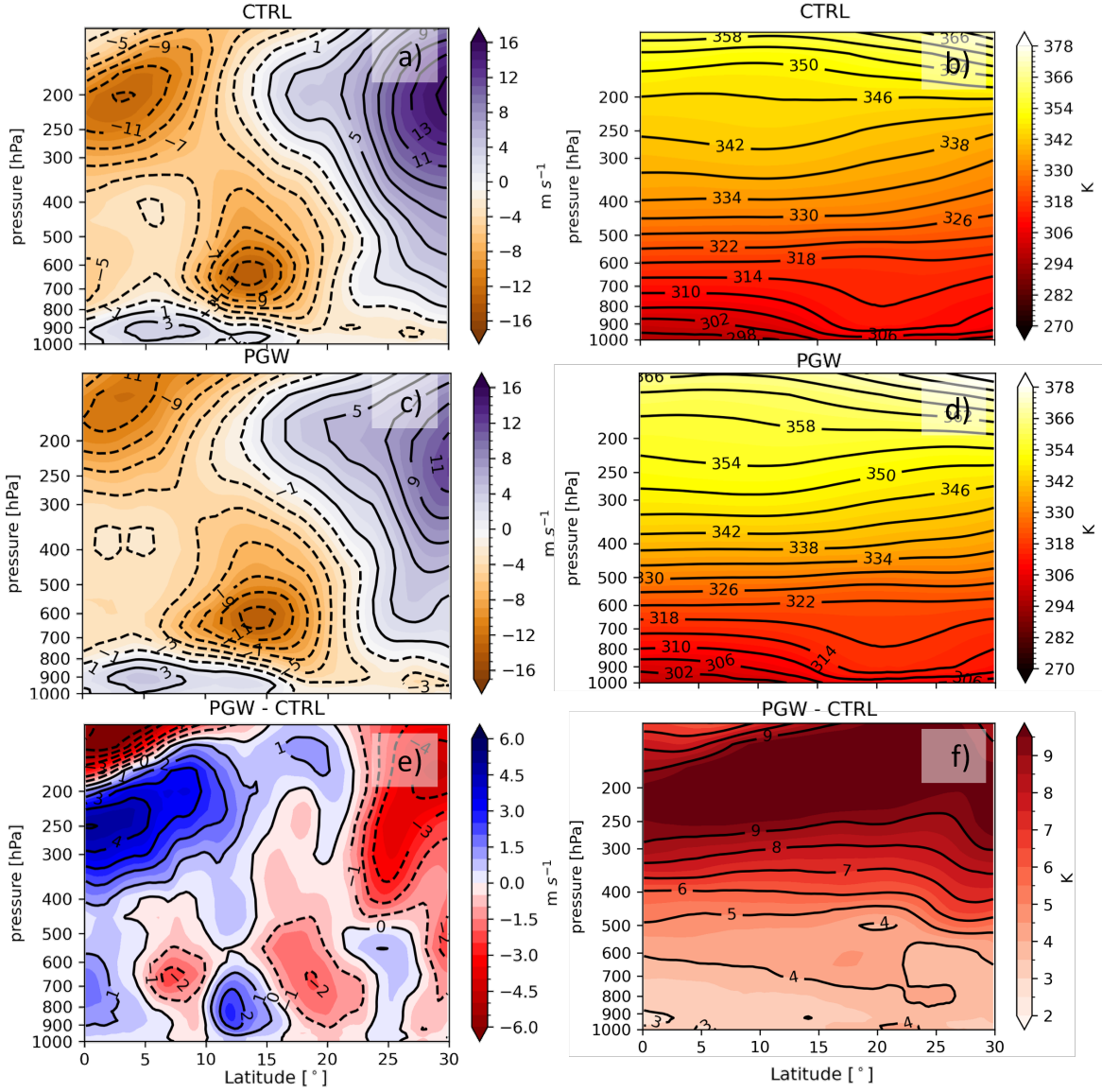


**Figure S4.** Latitude analyses of time-averaged, zonally averaged (top) OLR, (middle) precipitable water (pw), and (bottom) precipitation rate initialized on 00 UTC, 6 September 2006 removing the first 24 hours of the simulation for CTRL (blue lines) and PGW (orange lines). Longitude average taken for the WAM box.

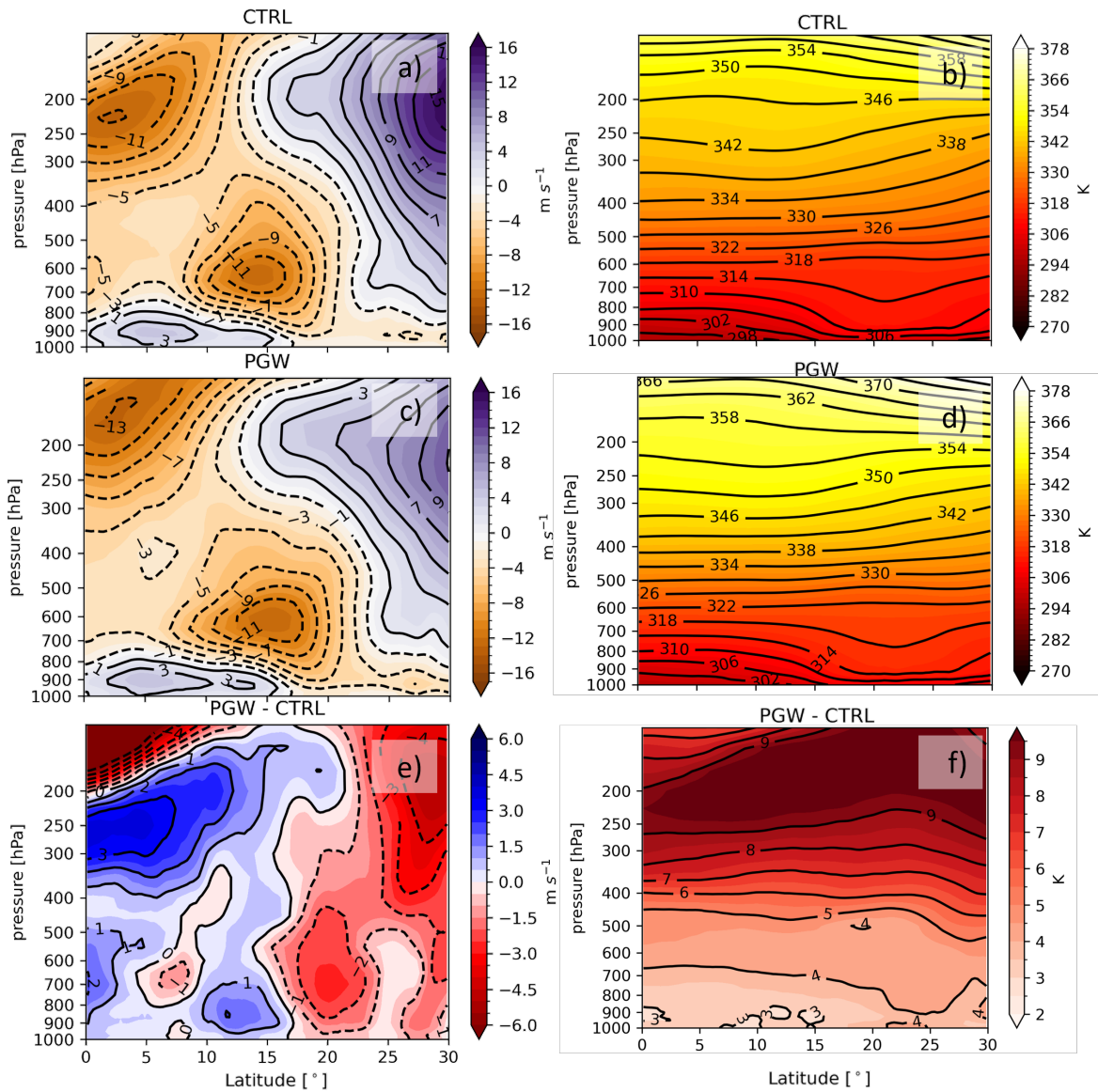




**Figure S5.** Vertical cross-section of the time-averaged diabatic heating rates from microphysics scheme removing the first 24 hours of the simulation for (a) CTRL, (b) PGW, and (c) the difference for 00 UTC, 5 September 2006 initialization. The same for (d), (e), and (f), respectively for 00 UTC, 6 September 2006 initialization. Longitude average taken for WAM box. Y axis is in log scale.



**Figure S6.** Vertical cross-section of the time-averaged zonal wind and potential temperature removing the first 24 hours of the simulation for CTRL in (a) and (b), respectively for 00 UTC, 5 September 2006 initialization. The same from (c-d) for PGW, and from (e-f) for the differences. Longitude average taken for the WAM box. Y axis is in log scale. The AEJ and TEJ are labeled in (a).



**Figure S7.** Vertical cross-section of the time-averaged zonal wind and potential temperature removing the first 24 hours of the simulation for CTRL in (a) and (b), respectively for 00 UTC, 6 September 2006 initialization. The same from (c-d) for PGW, and from (e-f) for the differences. Longitude average taken for the WAM box. Y axis is in log scale. The AEJ and TEJ are labeled in (a).