



Supplement of

How rainfall events modify trace gas mixing ratios in central Amazonia

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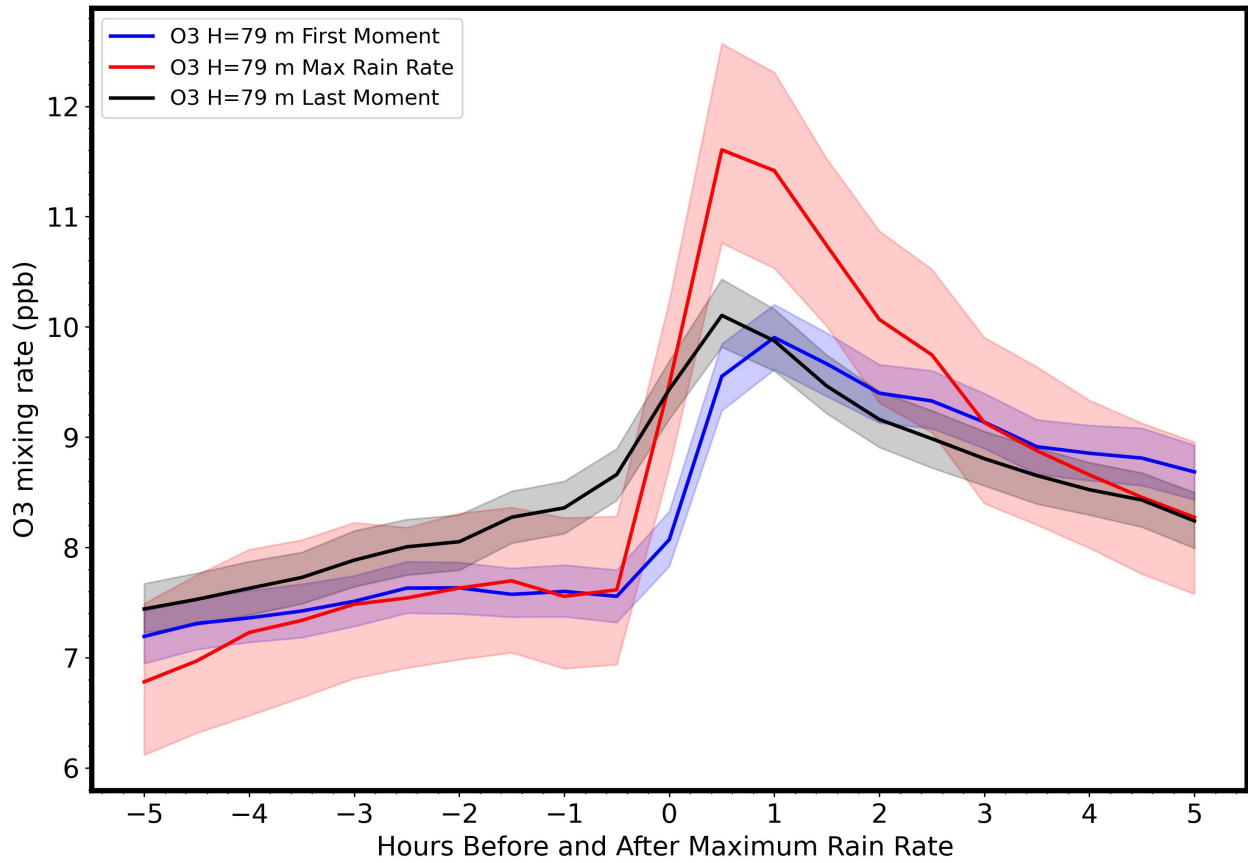


Figure S1. Example of composites considering time zero as the beginning of the rain, the max rain rate, and the end of the rain event. Composite for ozone mixing ratio at 79 m.

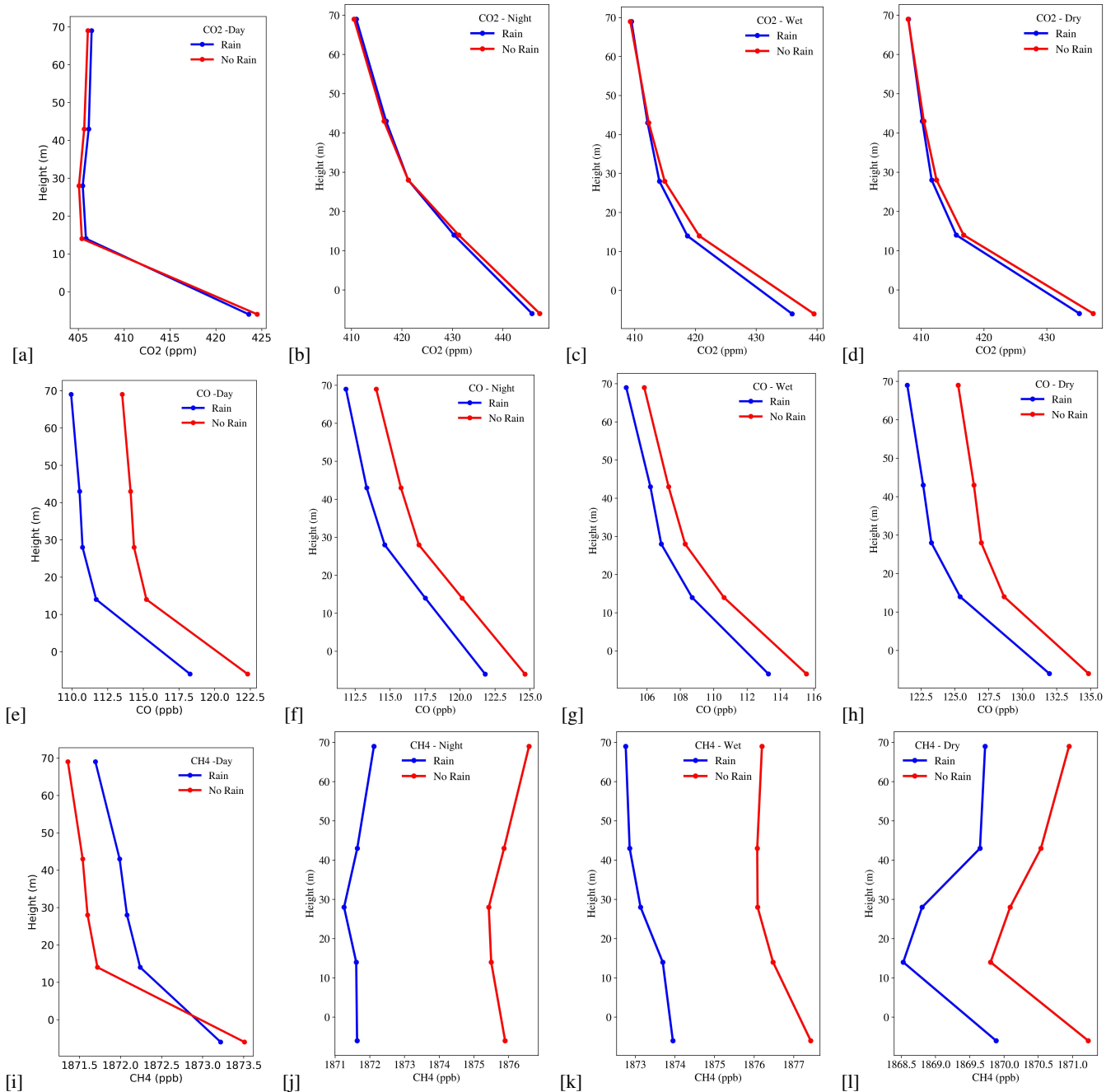


Figure S2. Vertical profiles of median mixing ratios for rain and no rain events, for a), b), c), d) CO_2 for day, night, wet and dry seasons, respectively, and similarly for e), f), g) and h) CO , i), j), k) and l) for CH_4 .

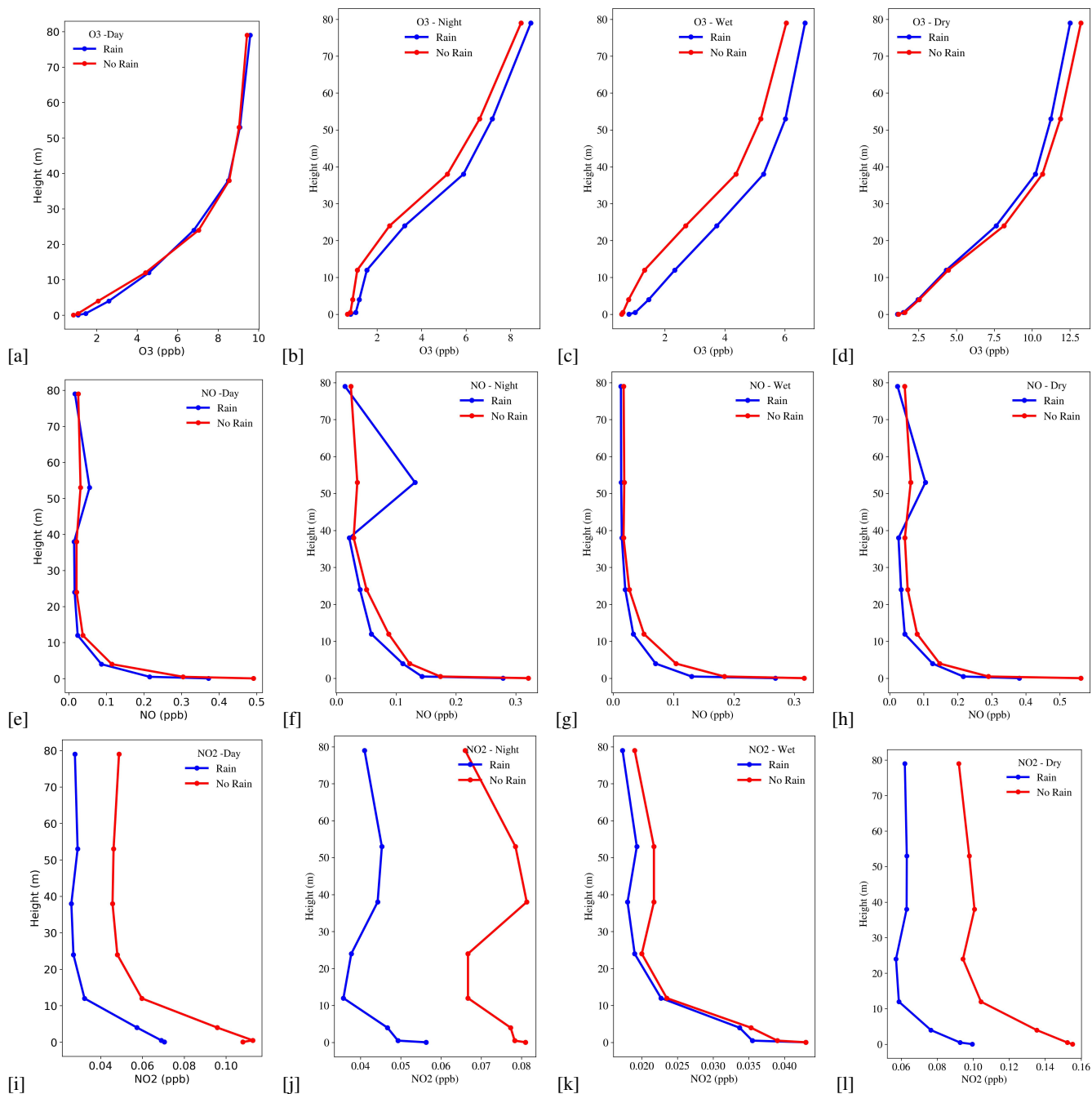


Figure S3. Vertical profiles of median mixing ratios for rain and no rain events, for a), b), c), d) O_3 for day, night, wet and dry seasons, respectively, and similarly for e), f), g) and h) NO , i), j), k) and l) for NO_2 .

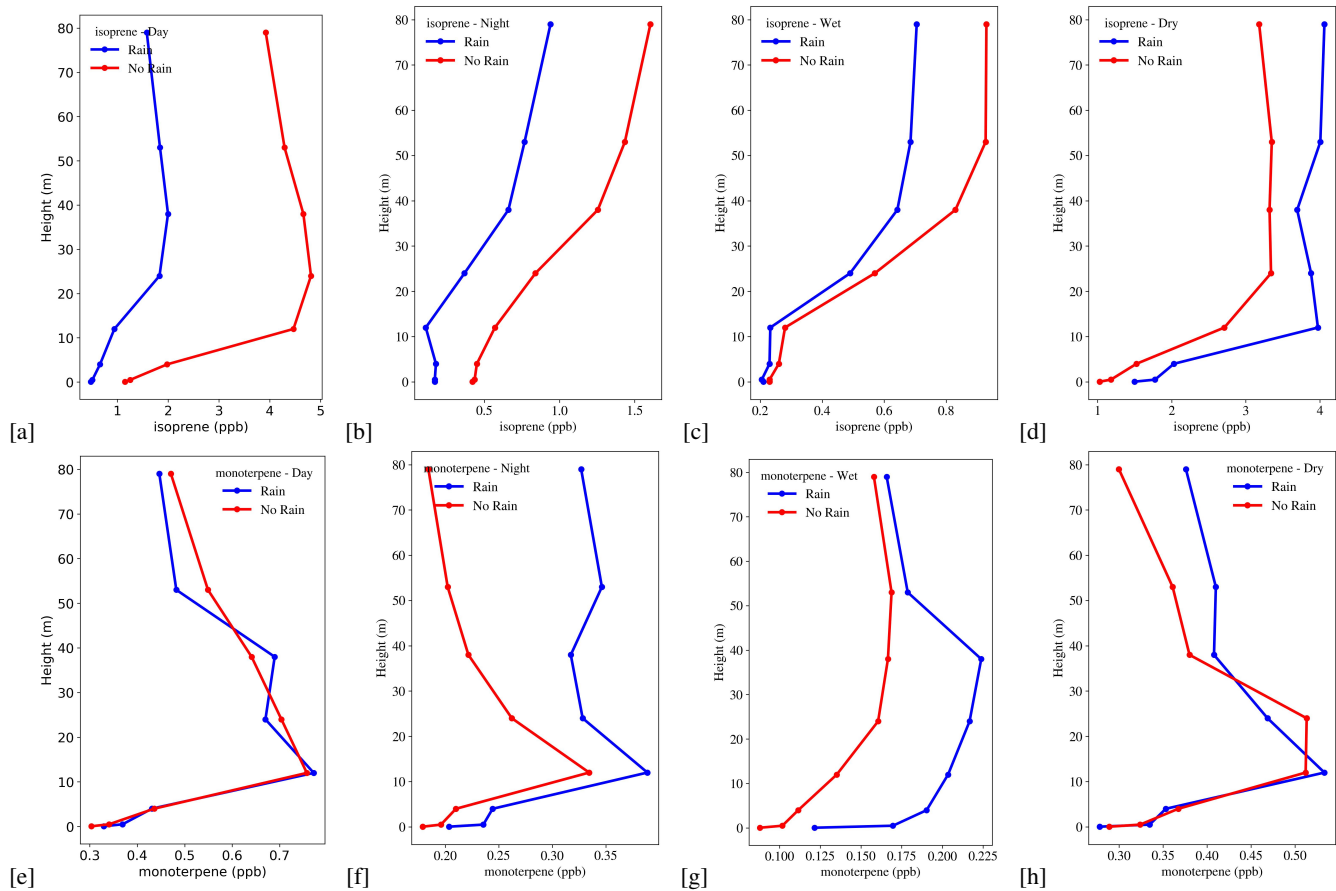


Figure S4. Vertical profiles of median mixing ratios for rain and no rain events, for a), b), c), d) Isoprene for day, night, wet and dry seasons, respectively, and similarly for e), f), g) and h) for Monoterpene.

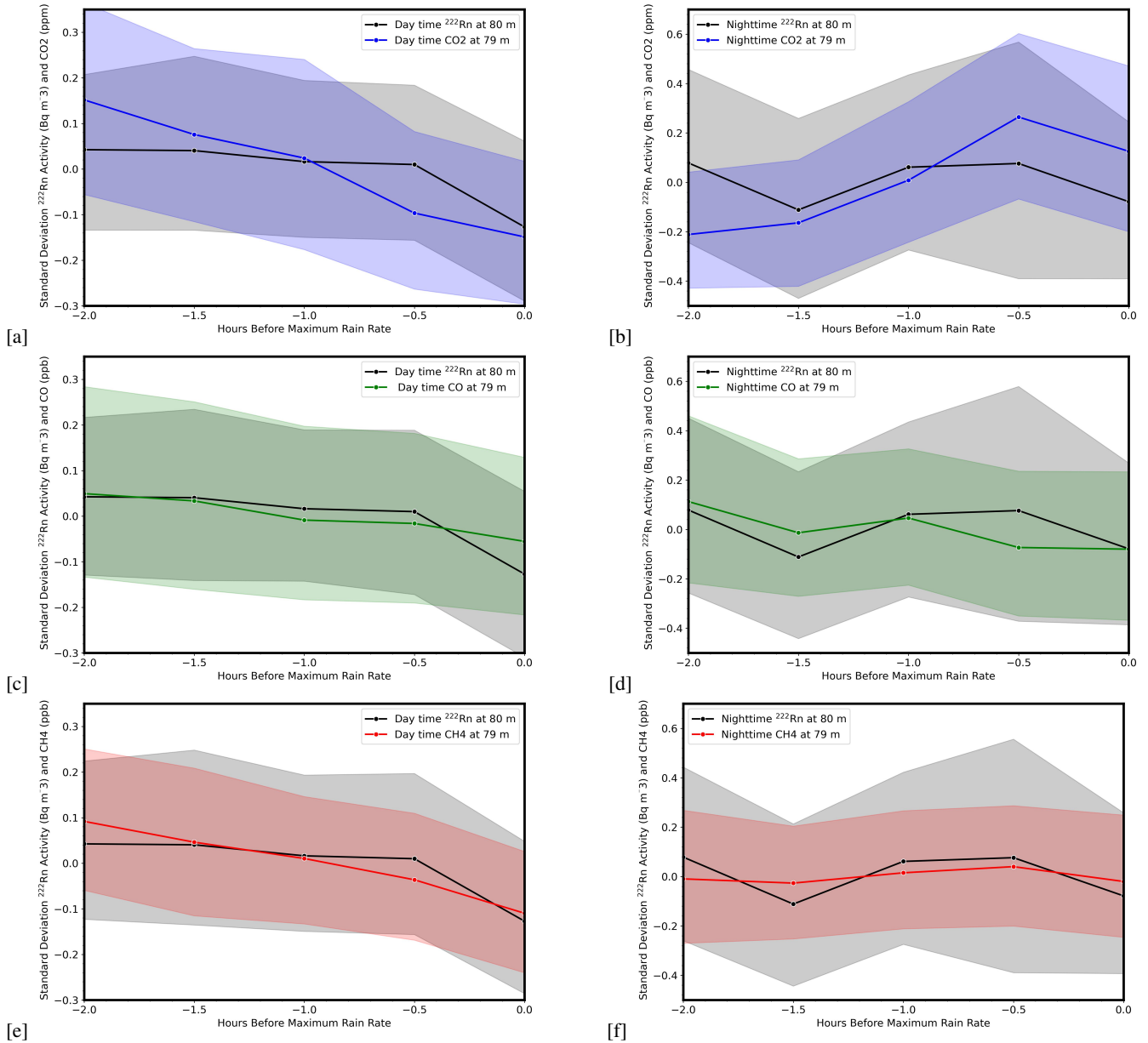


Figure S5. Composite plot with ATTO data in rain event-normalized representation, which shows data from two hours before to the time of the maximum rain rate for January 2019 to December 2020. Variations are presented as a number of standard deviations. The upper panel corresponds to the daytime, and the bottom panel corresponds to the nighttime calculations. All data was collected at the top of the Instant tower at height. All figures show the variation ^{222}Rn combined with Figure a) and b) CO_2 , during the day and night, c) and d) CO , during the day and night and e) and f) CH_4 , during the day and night

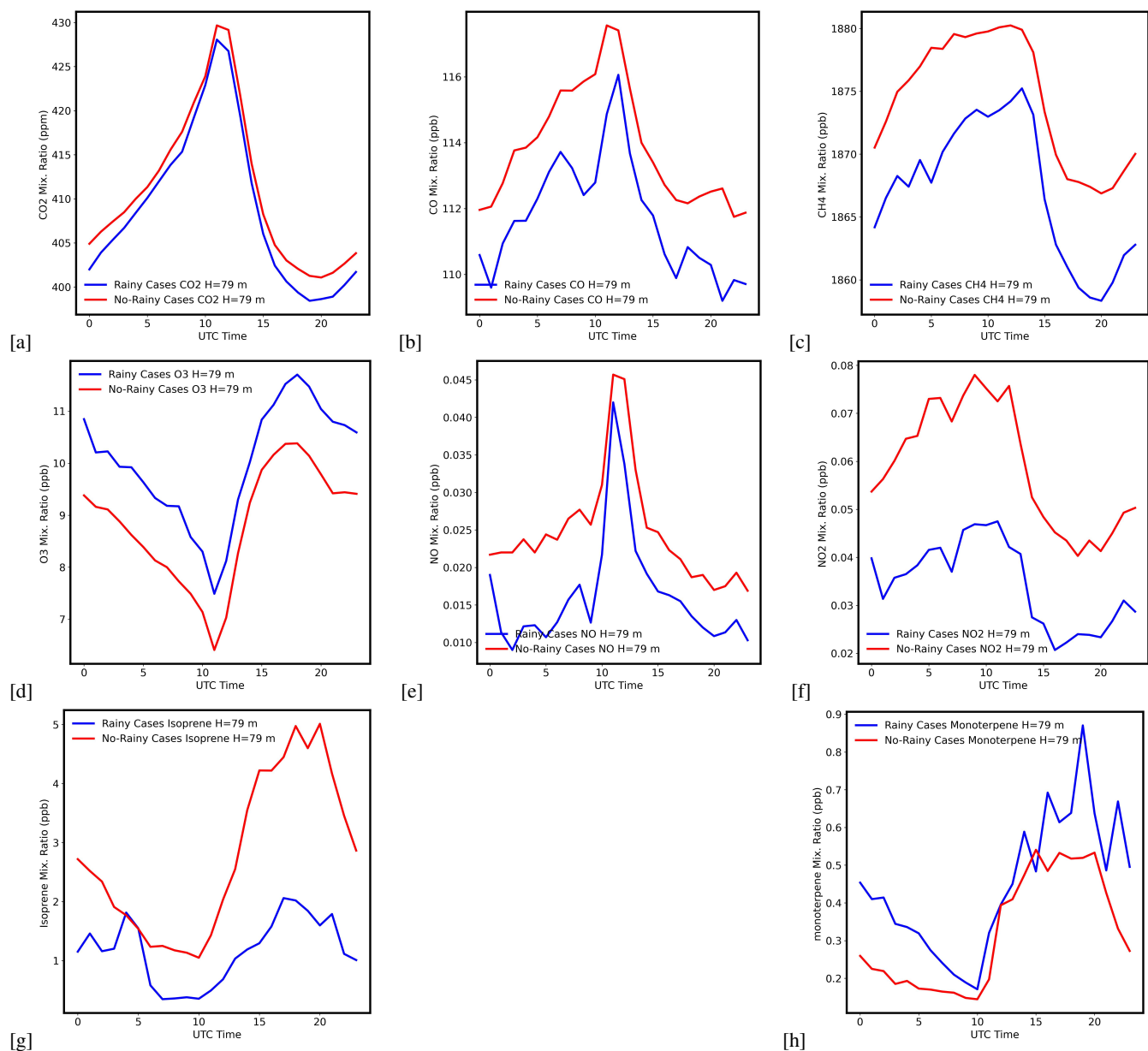


Figure S6. Diurnal cycle for the a) CO₂, b) CO, c) CH₄, d) O₃, e) NO, f) NO₂, g) isoprene, and h) monoterpenes mixing ratios for the rainy and no-rainy events. Time is in UTC.