

The authors would like to thank the editor for the time spent on the revision of the manuscript. As requested, we have revised the colour schemes with a colormap that allows readers with colour vision deficiencies to correctly interpret the findings, using the Coblis Color Blindness Simulator. Figures 8 to 12 and Fig. 14, which appear below have accordingly been modified with a uniform sequential colormap.

### Editor report

Please ensure that the colour schemes used in your maps and charts allow readers with colour vision deficiencies to correctly interpret your findings. Please check your figures using the Coblis – Color Blindness Simulator (<https://www.color-blindness.com/coblis-color-blindness-simulator/>) and revise the colour schemes accordingly.

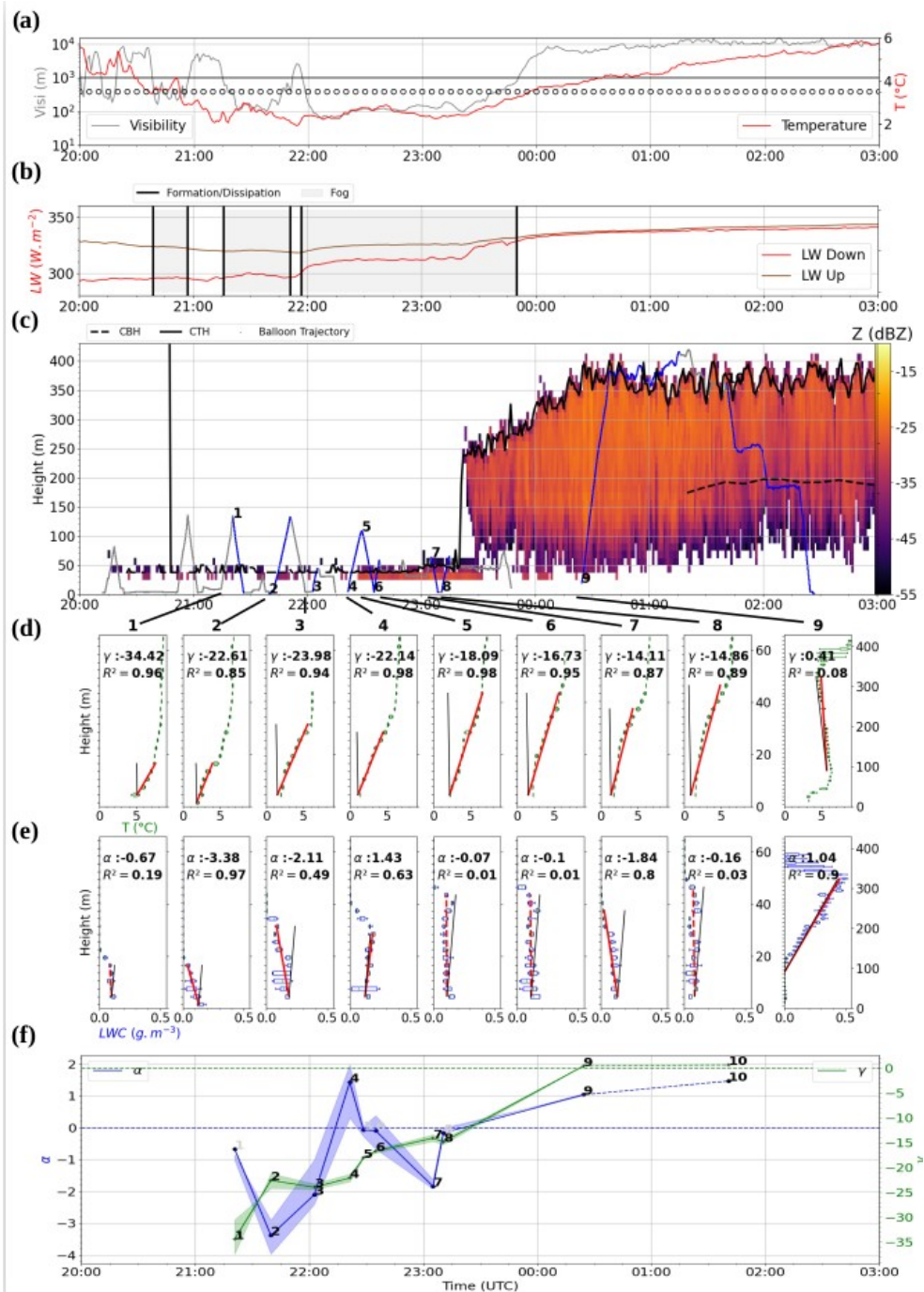


Figure 8. Temporal evolution during IOP 13b of (a) visibility, temperature at 2m and wind barbs at 10 m above ground level (empty circles, half barbs and full barbs represent wind speeds  $< 2.5$ , 5 and  $10 \text{ m.s}^{-1}$ , respectively. The orientation of the barbs gives the wind direction); (b) the upward (brown) and downward (red) longwave radiation. The gray shaded area delimitate foggy periods; (c) reflectivity and CTH derived from the BASTA cloud radar, and CBH (dashed line) from the ceilometer. The trajectory of the tethered balloon is superimposed in grey. Each selected vertical profile is highlighted in blue and labeled by its number; (d) Corresponding vertical profiles of measured temperature, with adiabaticity (red) and adiabatic lapse rate (black); (e) Corresponding vertical profiles of LWC measured by the CDP with adiabaticity (red) and adiabatic (black); (f) Temporal evolution of the adiabaticity for the selected profiles : LWC (blue line) and lapse rate (green line).

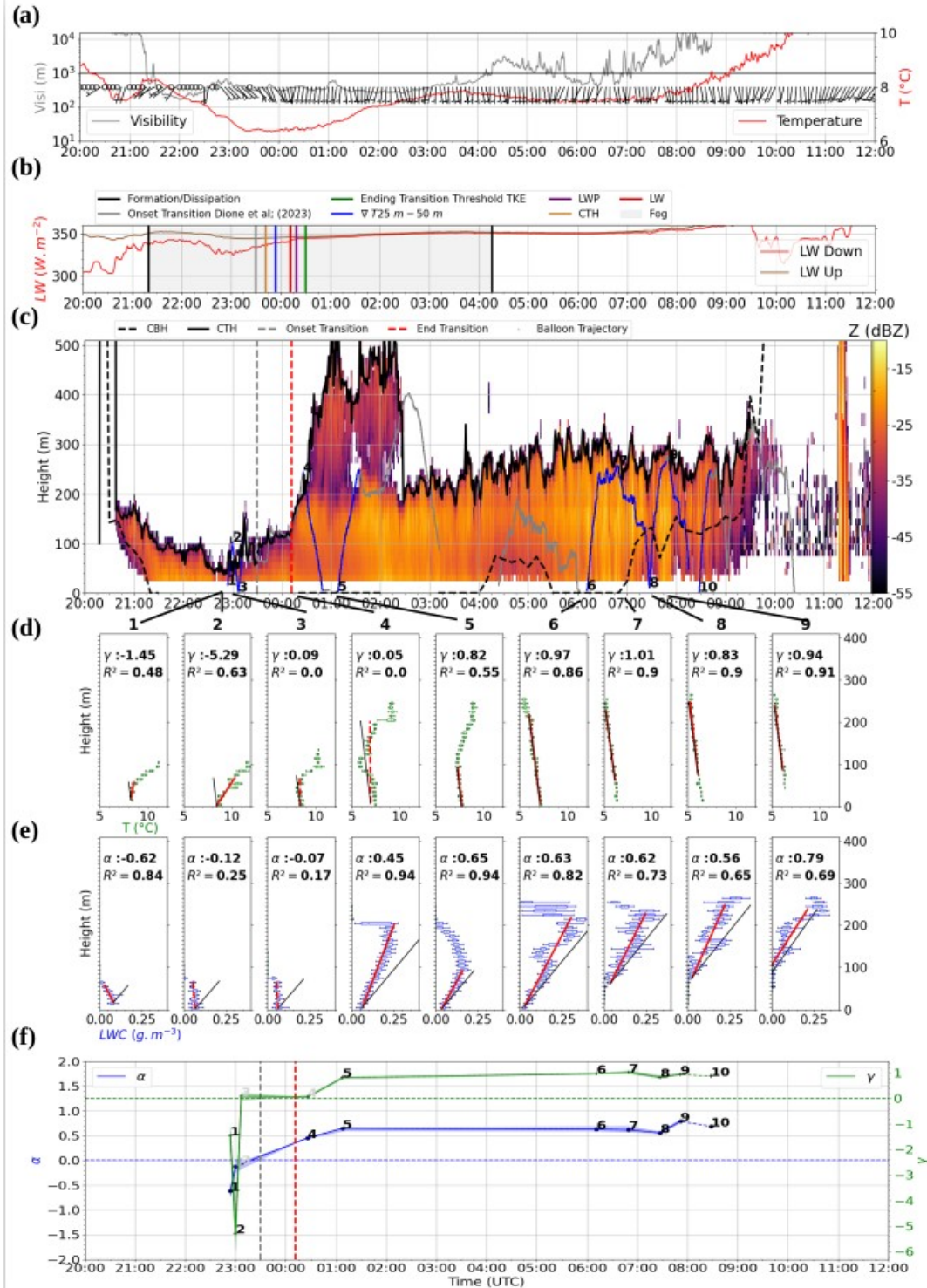


Figure 9. Same as Fig. 8 but for IOP 14. In addition b) the onset time from Dione et al. (2023) and the different ending times of the thin-to-thick fog transition are indicated by vertical lines, as in Figure 2; c) and f) the onset time is indicated by a vertical grey dashed line and the ending time derived from longwave net radiation is indicated by a vertical red dashed line.

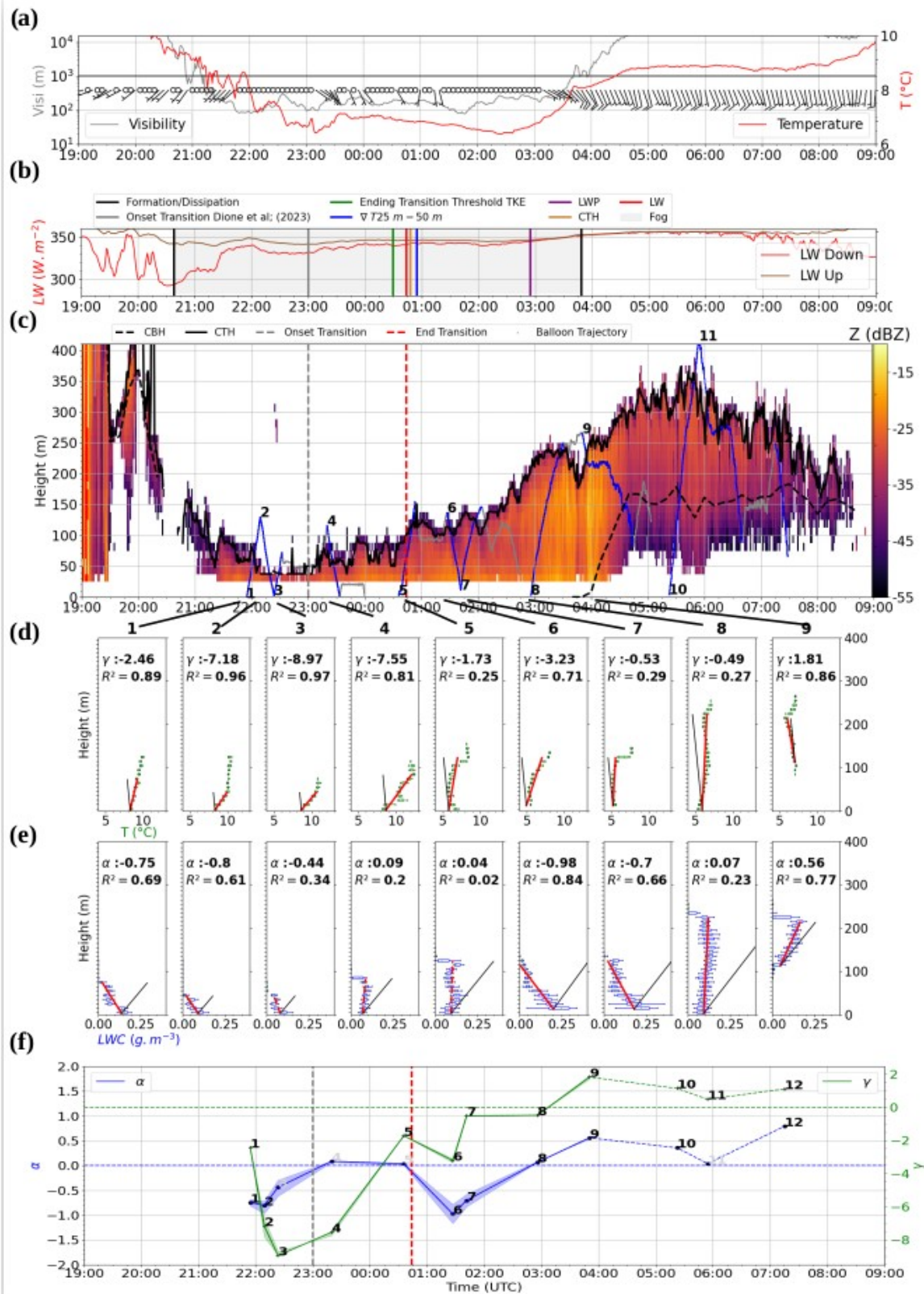


Figure 10. Same legend as Fig. 9 but for IOP 11



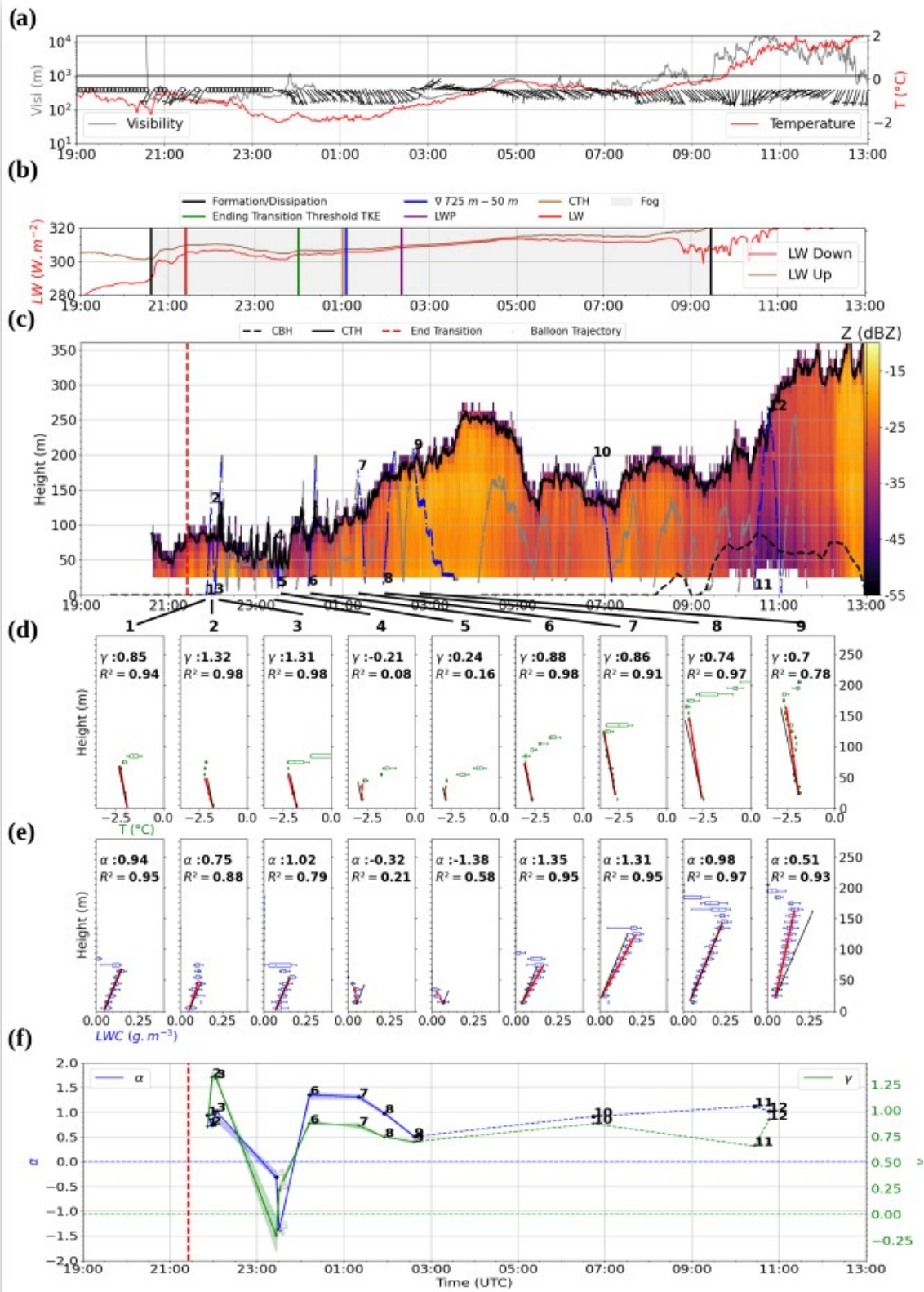


Figure 11. Same legend as Fig. 9 but for IOP 6. Visibility in (a) is issued from the Jachère site.

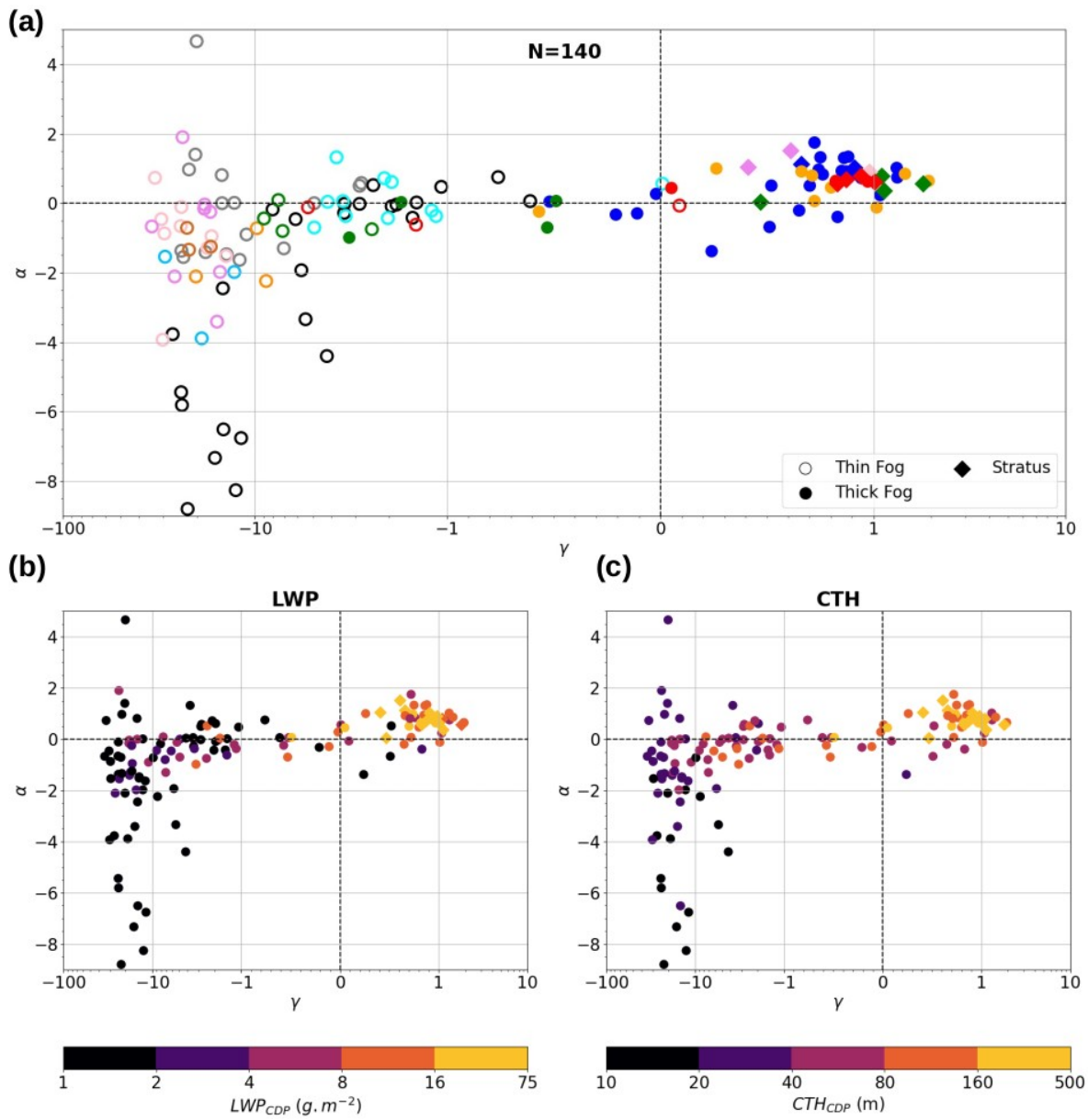


Figure 12. Adiabaticity parameter  $\alpha$  as a function of  $\gamma$  in logarithmic scale, over the 12 IOPs : (a) colored with IOPs as in Fig. 4, thin and thick fog are indicated by empty dots and filled dots, respectively, (b) colored with LWP values issued from the CDP measurements, (c) colored with CTH values issued from the CDP measurements. Fog and stratus are indicated by dots and diamonds respectively.

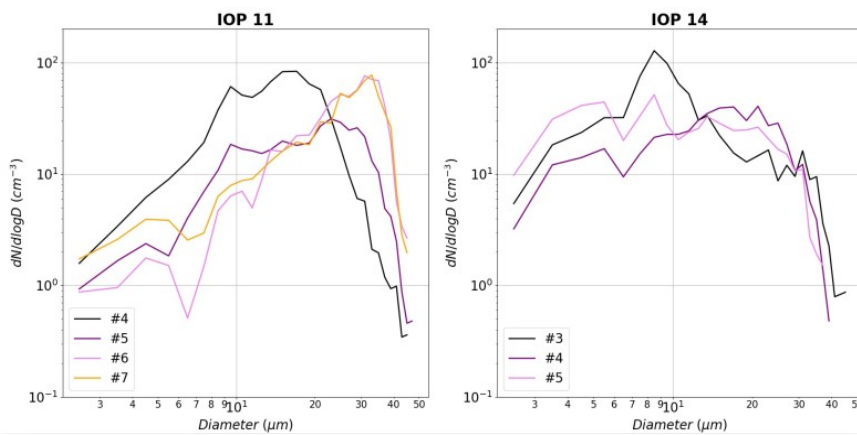


Figure 14. Droplet number size distributions measured by CDP in the 15 m thick layer above the surface for profiles (a) # 4 to # 7 from IOP 11, and (b) # 3 to # 5 from IOP 14