

## S1. Supplementary Material

### S1.1 Analysis of CNEA site during training period

#### S1.1.1 Temporal Variations

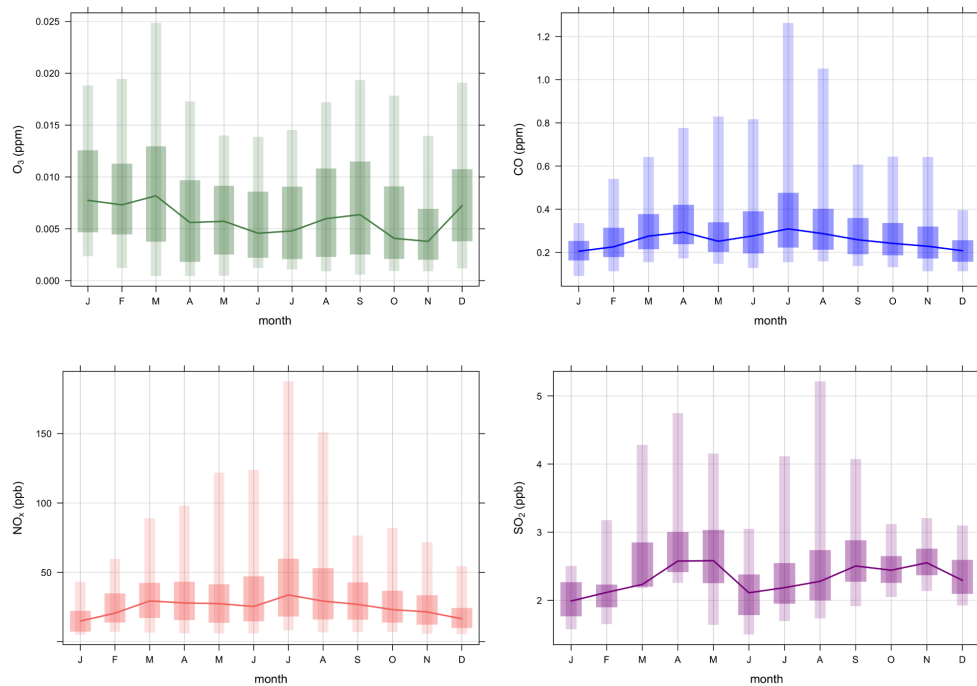


Fig. S1: Boxplot of training period ground-based observations for CNEA site.

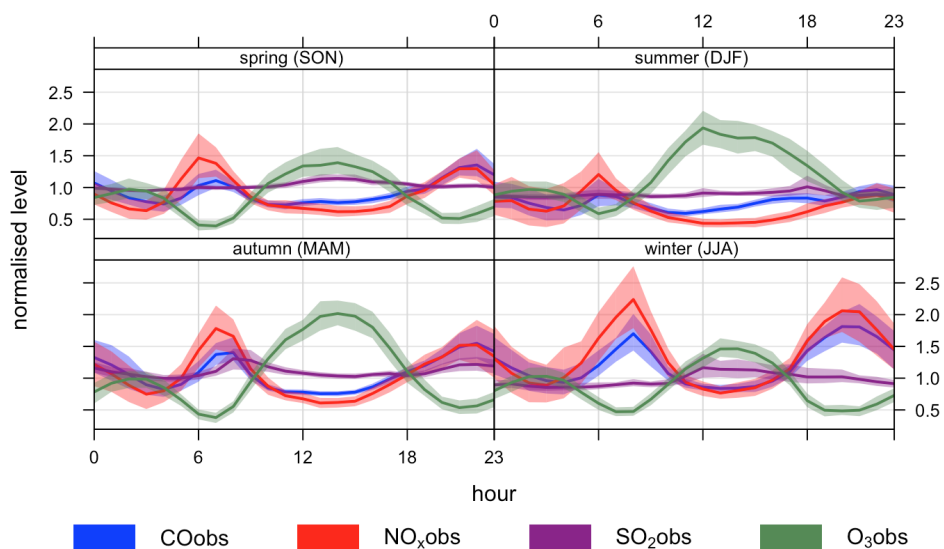


Fig S2: Seasonal diurnal cycles of training period ground-based observations for the CNEA site.

### S.1.1.2 Bivariate polar plots for training period

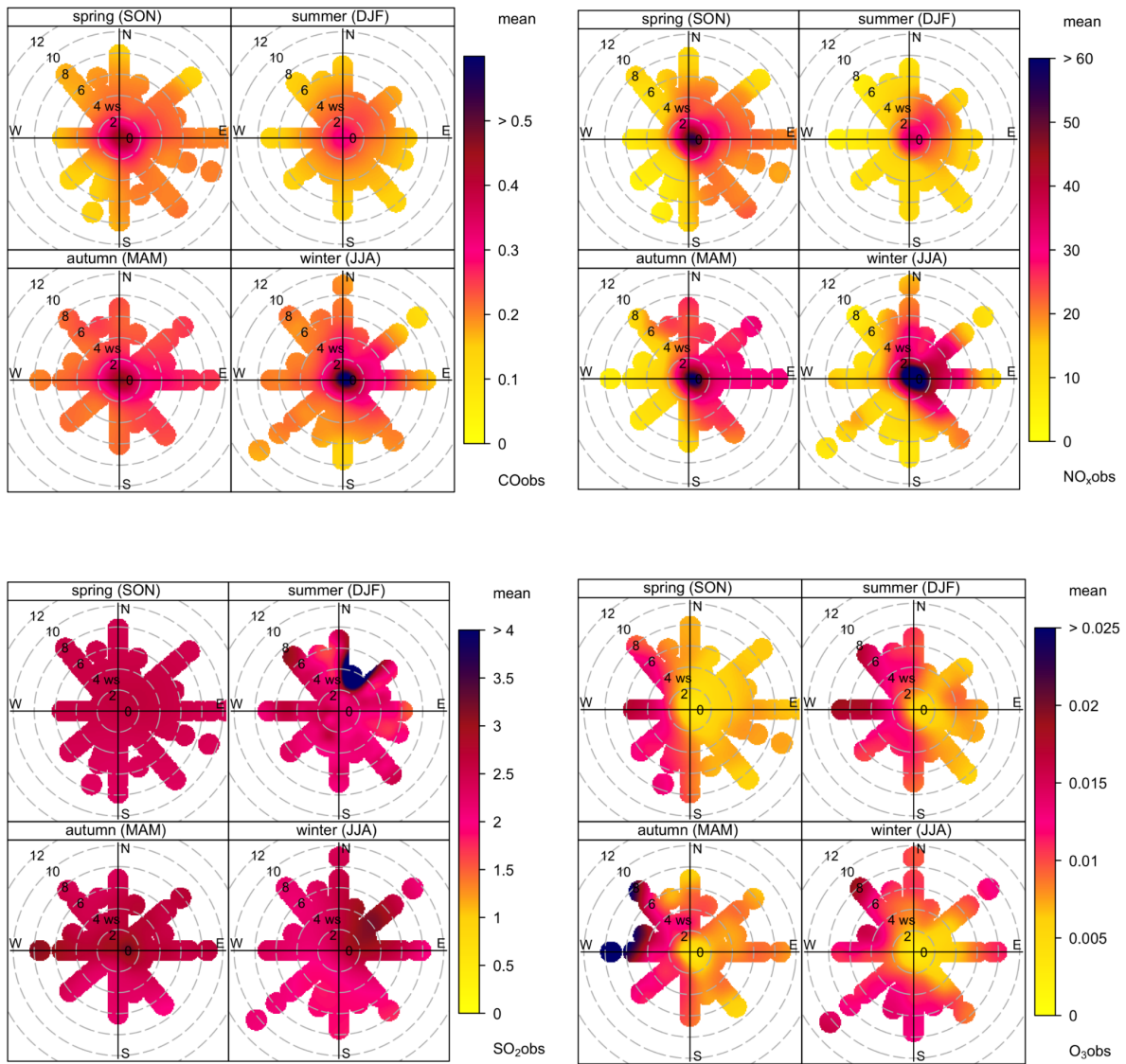


Figure S3: Seasonal bivariate polar plots for training period (CNEA site).

## S1.2 Analysis of CNEA site during testing period

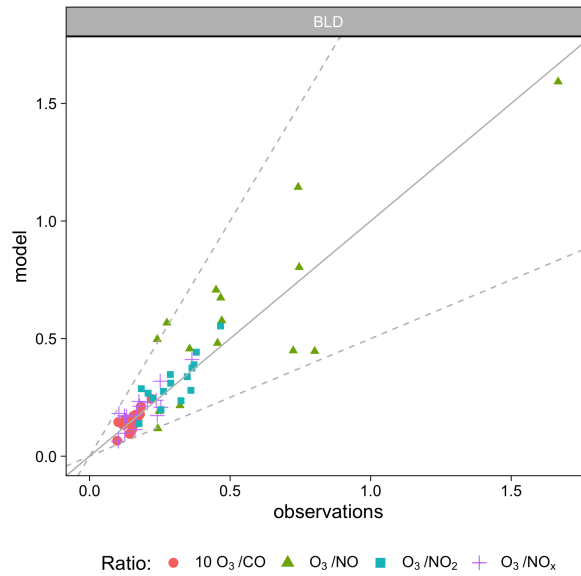


Figure S4. Scatter plot for O<sub>3</sub> ratios during testing period (BLD) in CNEA site. For better visualization O<sub>3</sub>-CO ratio was multiplied by 10. The 1:1 line is solid and the 1:0.5 and 1:2 lines are dashed. Values within the dashed lines represent the fraction of values that are within a factor of 2 of the observations. Pearson correlation coefficients:  $r_{O_3-CO} = 0.79$ ,  $r_{O_3-NO} = 0.85$ ,  $r_{O_3-NO_2} = 0.87$ ,  $r_{O_3-NO_x} = 0.89$ .

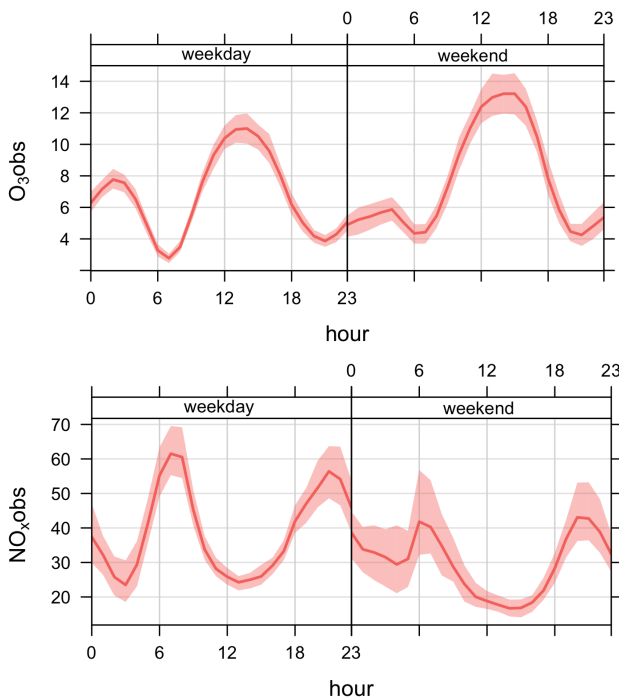


Figure S5. Mean diurnal cycle for weekends and weekdays for O<sub>3</sub> [ppb] and NO<sub>x</sub> [ppb] during the training period at CNEA site.

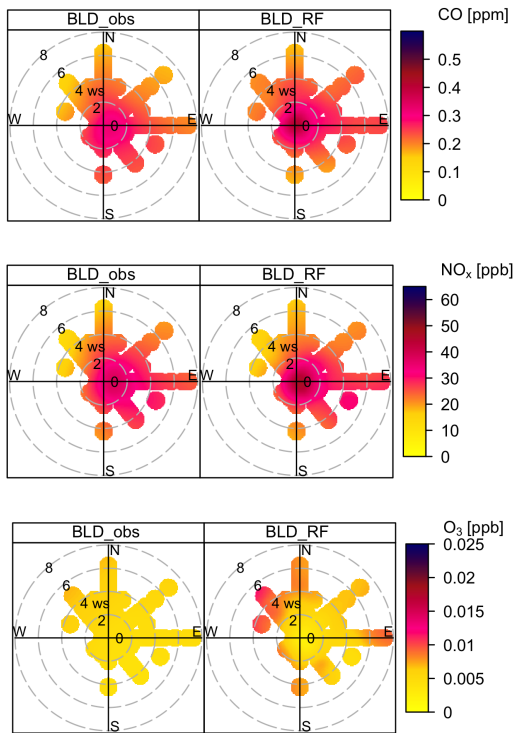


Figure S6. Bivariate Polar plots for testing period (BLD) for CNEA site.

### S1.3 Analysis of Parque Centenario site during testing period

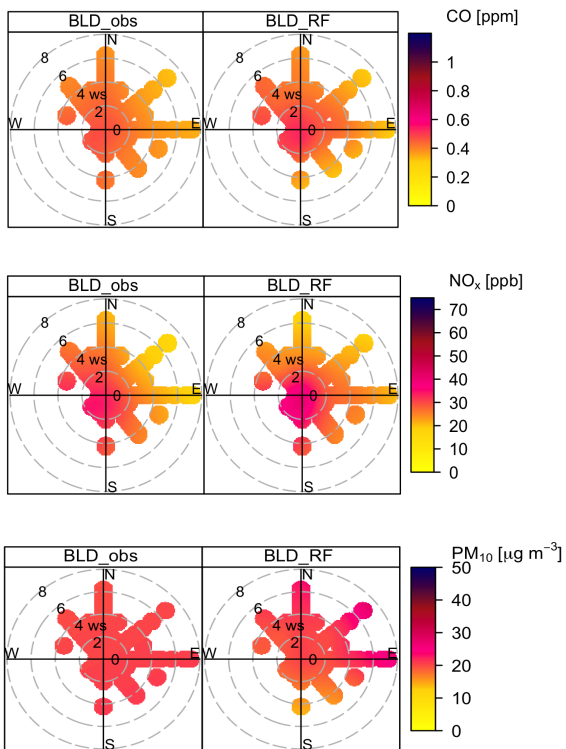


Figure S7. Bivariate Polar plots for testing period (BLD) for Centenario site.