

Figure S1: Median concentration of  $\text{PM}_{2.5}$  component species in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.

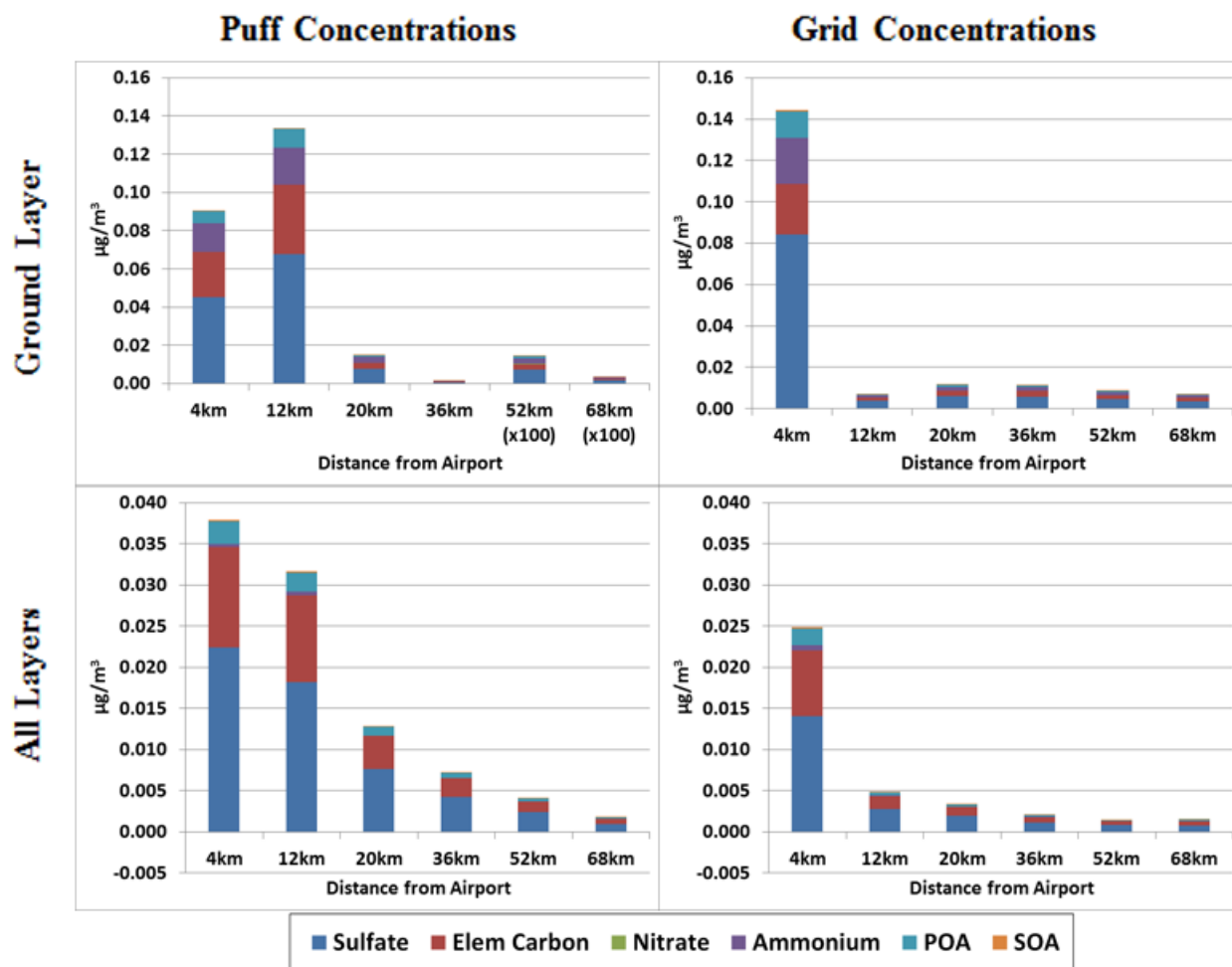


Figure S2: Median concentration of  $\text{PM}_{2.5}$  component species in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes only those grid-cells in the outer-most ring as we go outward from the airport, and thus no overlap of grid-cells in each bar. Note that the vertical axis scale varies by graph.

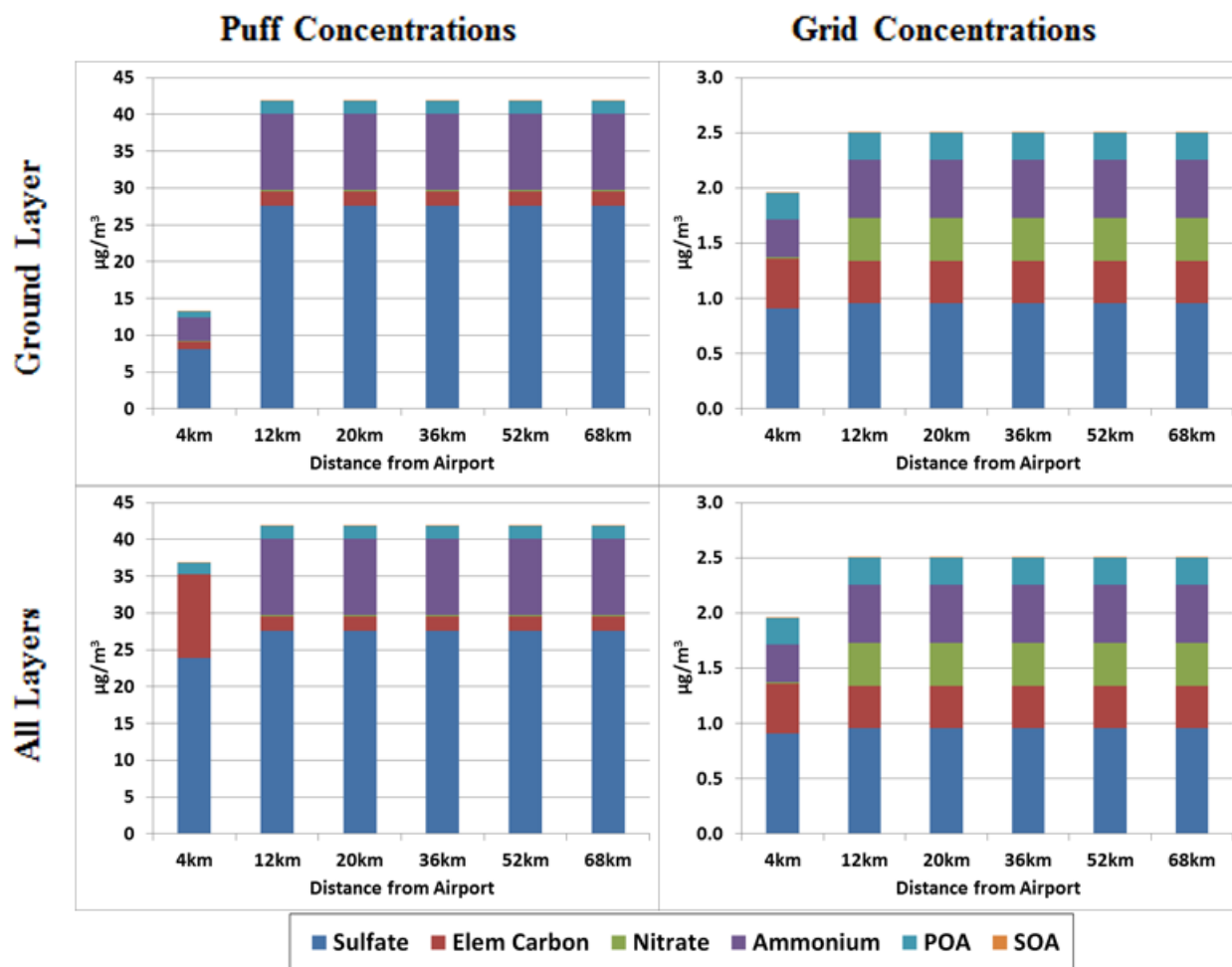


Figure S3: Maximum concentration of  $\text{PM}_{2.5}$  component species in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.

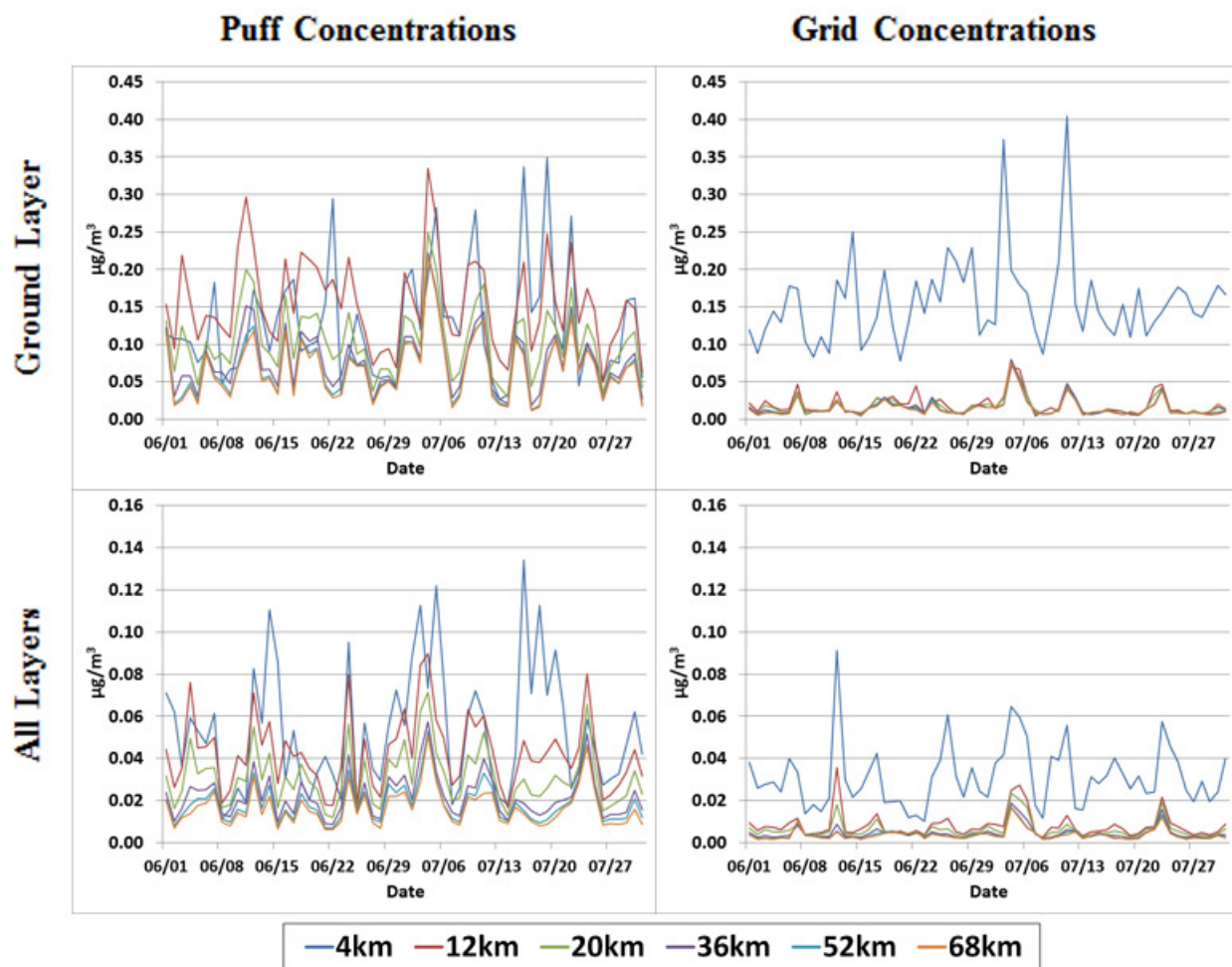


Figure S4: Daily variability in median  $PM_{2.5}$  concentrations in puffs and in airport contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.

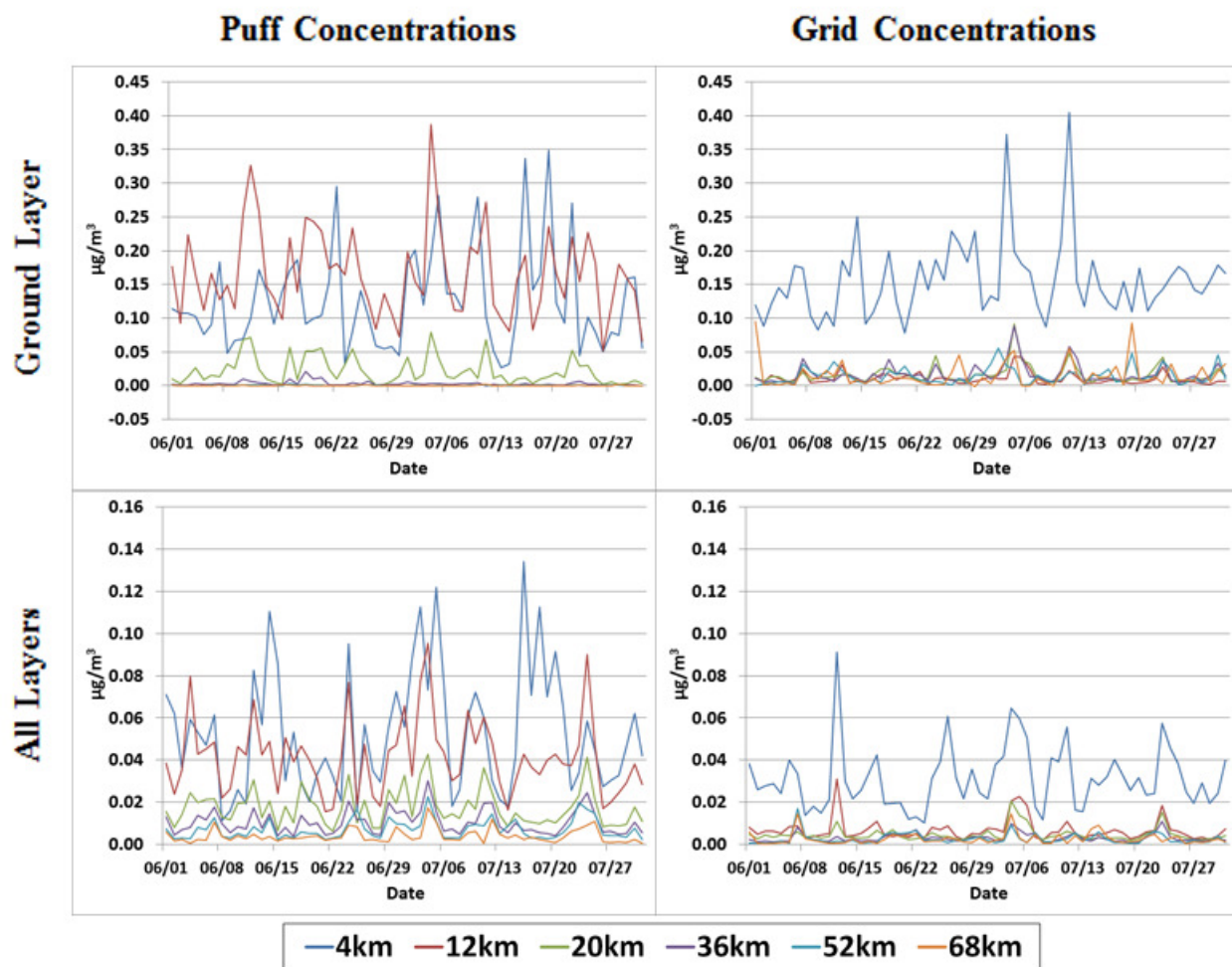


Figure S5: Daily variability in median  $PM_{2.5}$  concentrations in puffs and in airport contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes only those grid-cells in the outer-most ring as we go outward from the airport, and thus no overlap of grid-cells in each bar. Note that the vertical axis scale varies by graph.

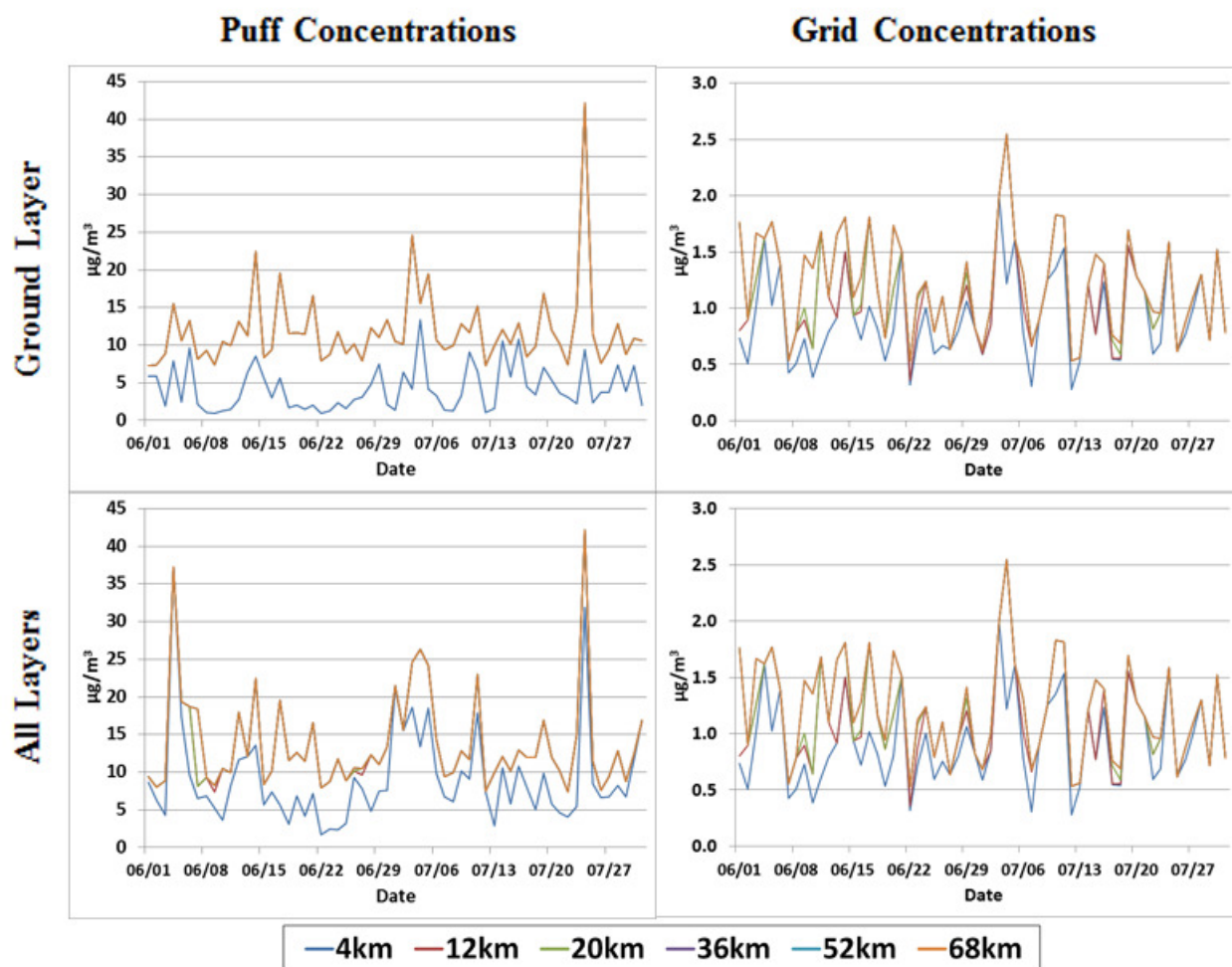


Figure S6: Daily variability in maximum  $\text{PM}_{2.5}$  concentrations in puffs and in airport contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.

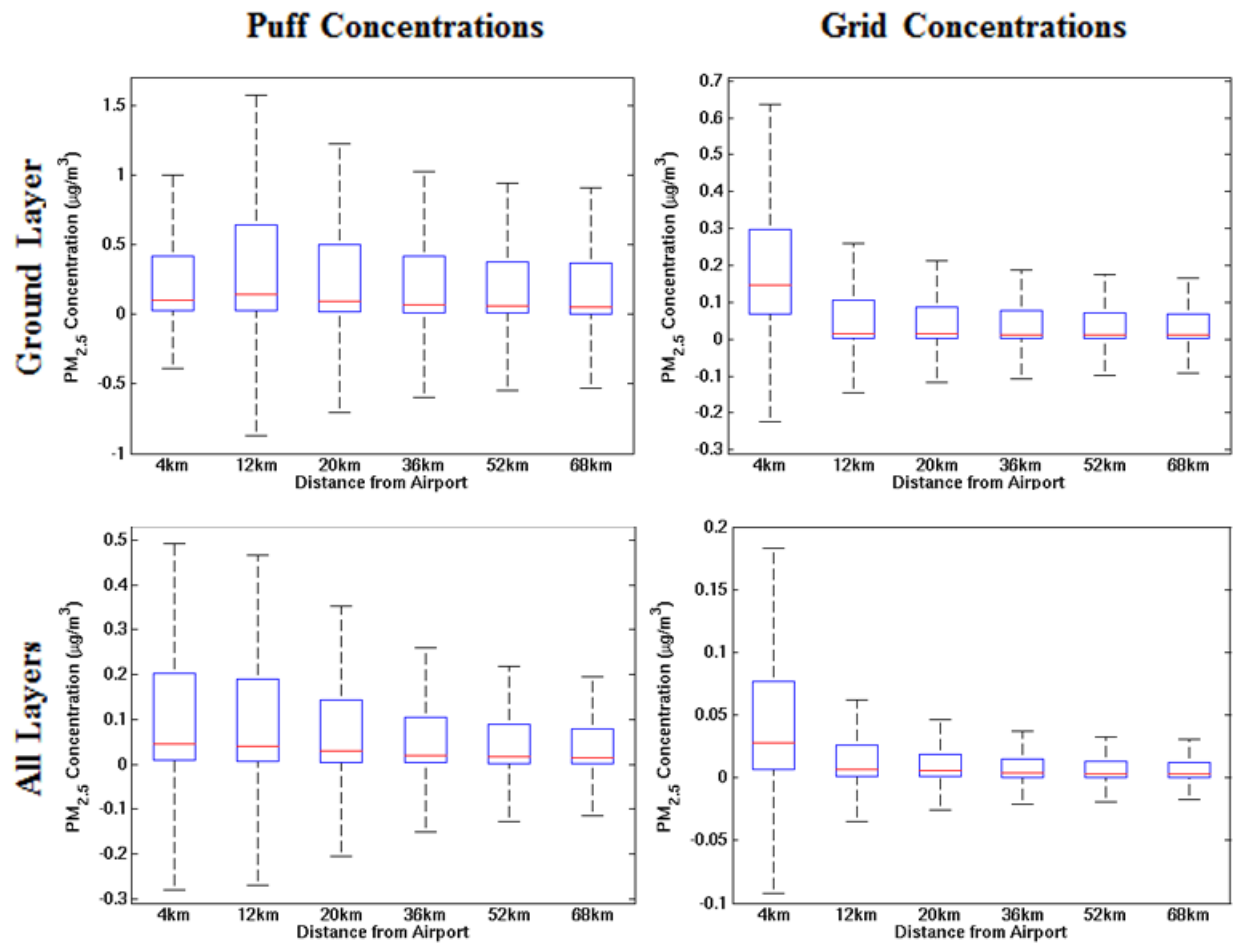


Figure S7: Box-and-whisker plots (excluding outliers) of PM<sub>2.5</sub> concentrations in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.

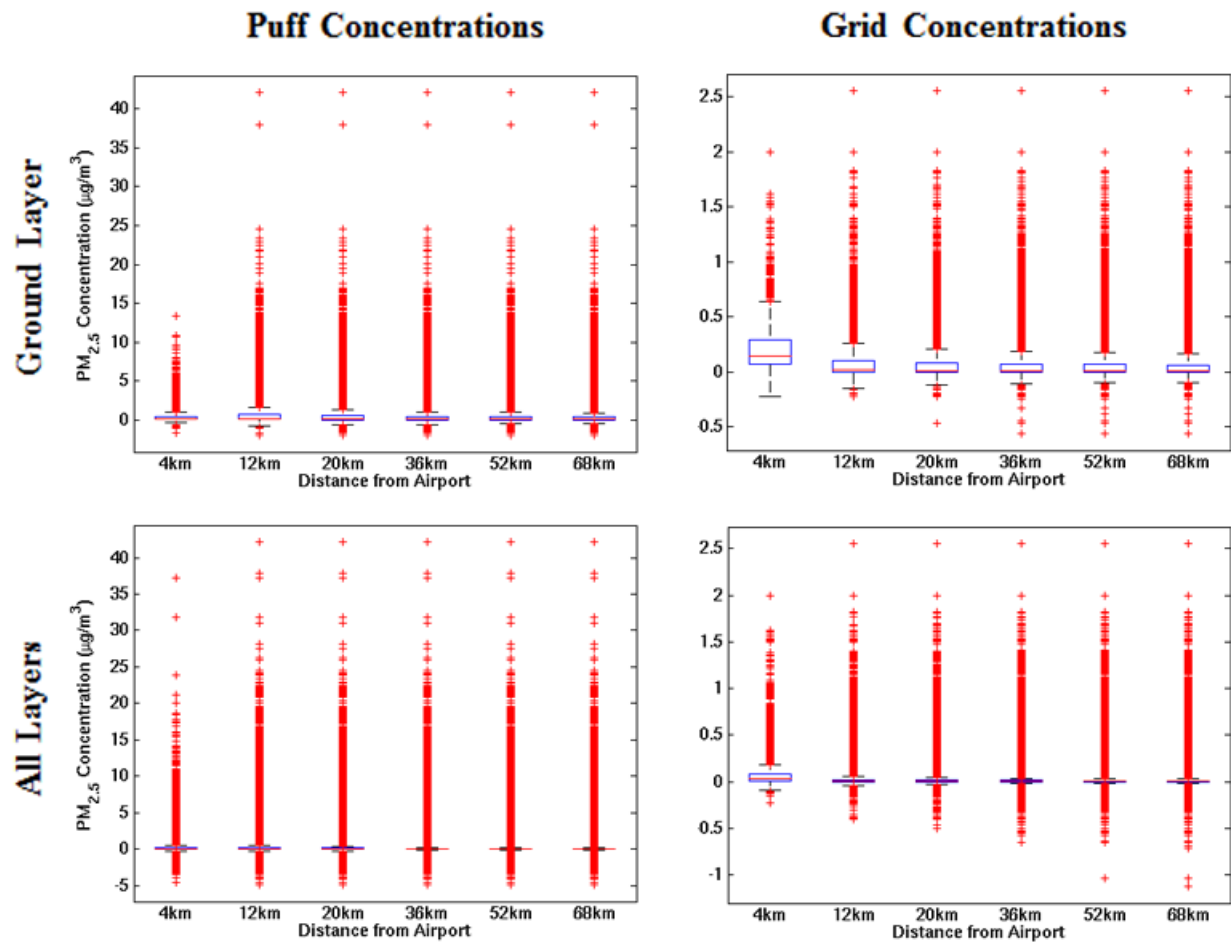


Figure S8: Box-and-whisker plots (including outliers) of PM<sub>2.5</sub> concentrations in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes all grid-cells in each concentric ring as we go outward from the airport. Note that the vertical axis scale varies by graph.



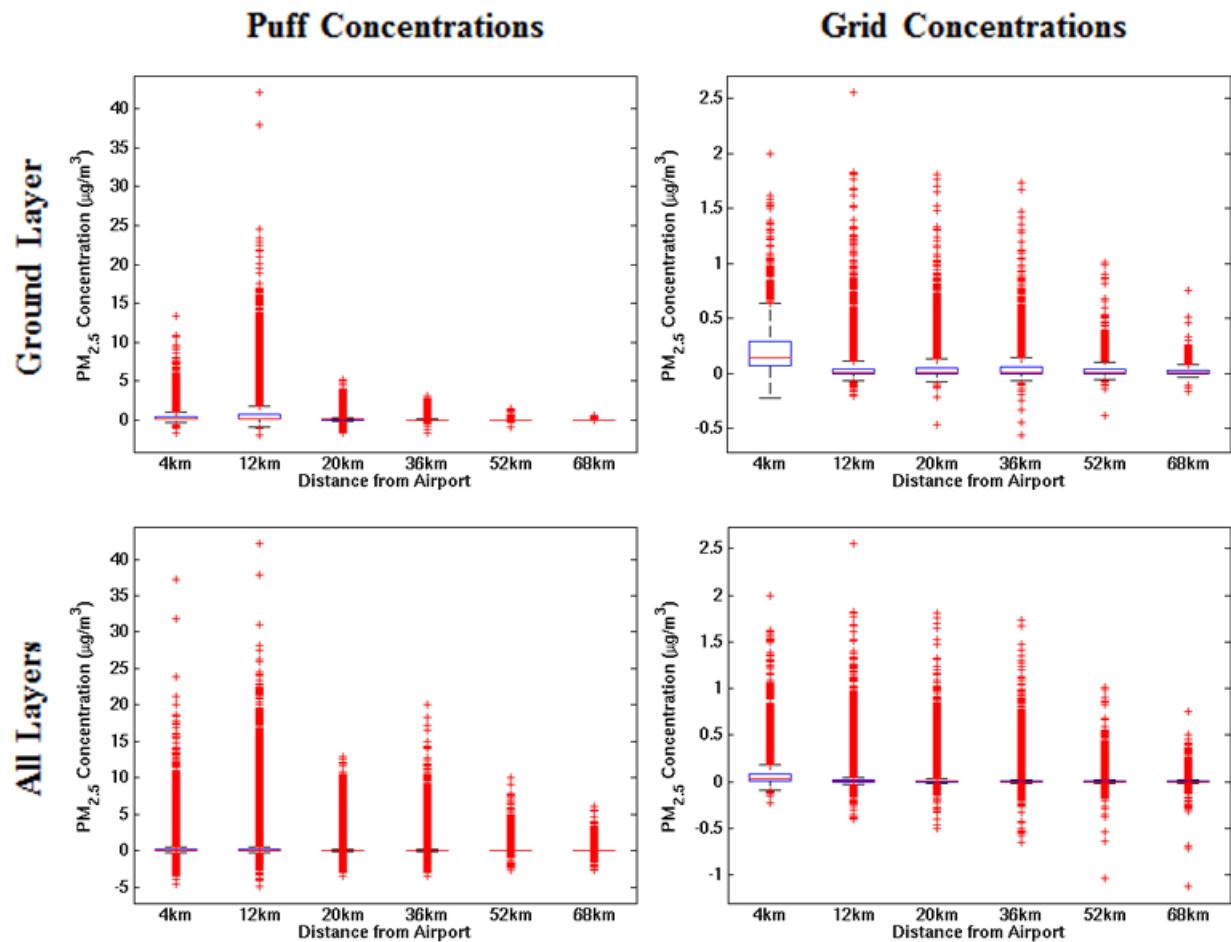


Figure S9: Box-and-whisker plots (including outliers) of  $PM_{2.5}$  concentrations in puffs and in aircraft contribution to grid cells at various distances in modeled surface layer, and in all layers. The analysis includes only those grid-cells in the outer-most ring as we go outward from the airport, and thus no overlap of grid-cells in each bar. Note that the vertical axis scale varies by graph.

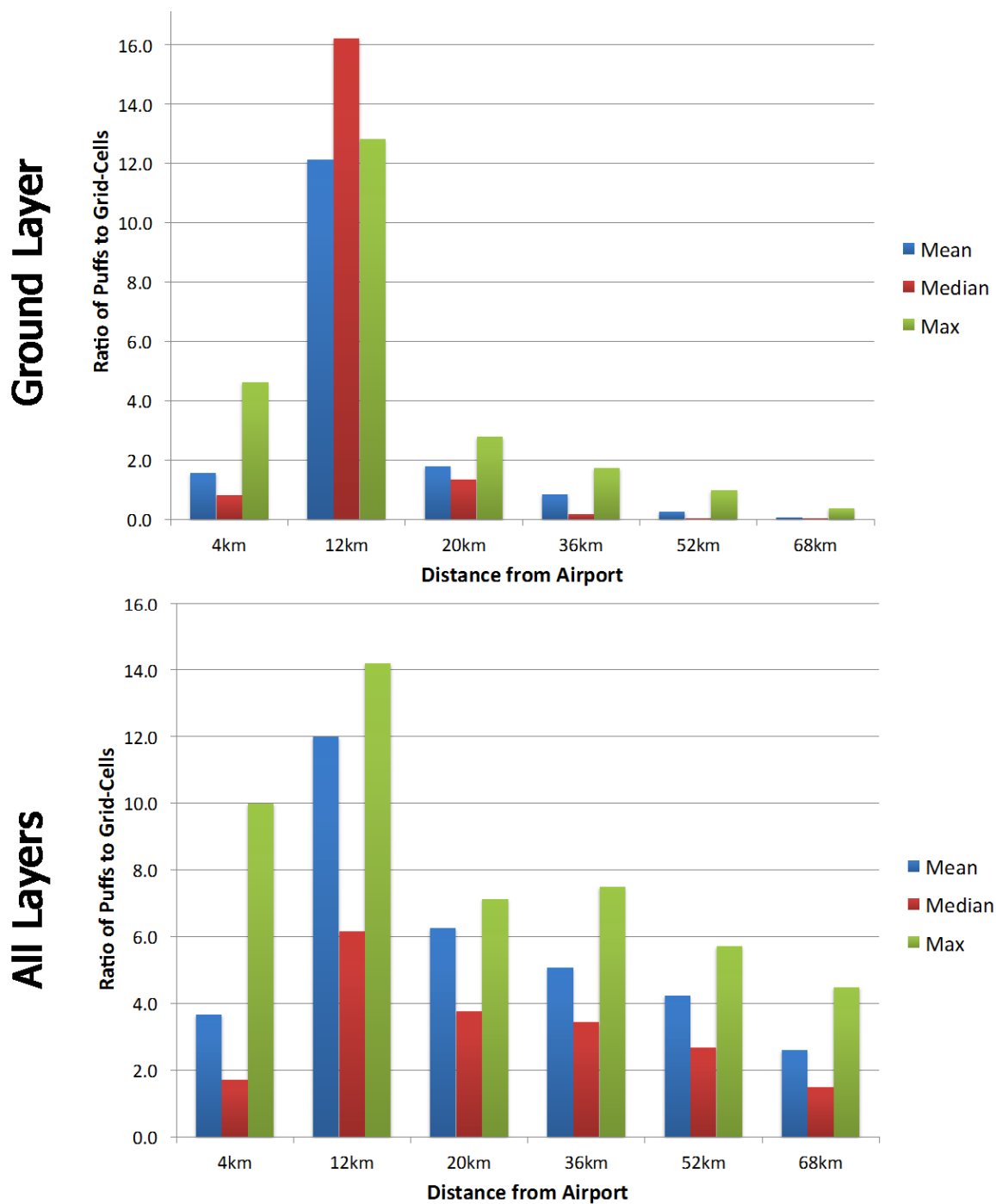


Figure S10: Ratios of mean, median and maximum daily PM<sub>2.5</sub> concentrations in puffs to grid-cells at various distances in modeled surface layer, and in all layers. The analysis includes only those grid-cells in the outer-most ring as we go outward from the airport, and thus no overlap of grid-cells in each bar.