Appendix A. Augusta Holiday Fireworks Exceptional Events Plots

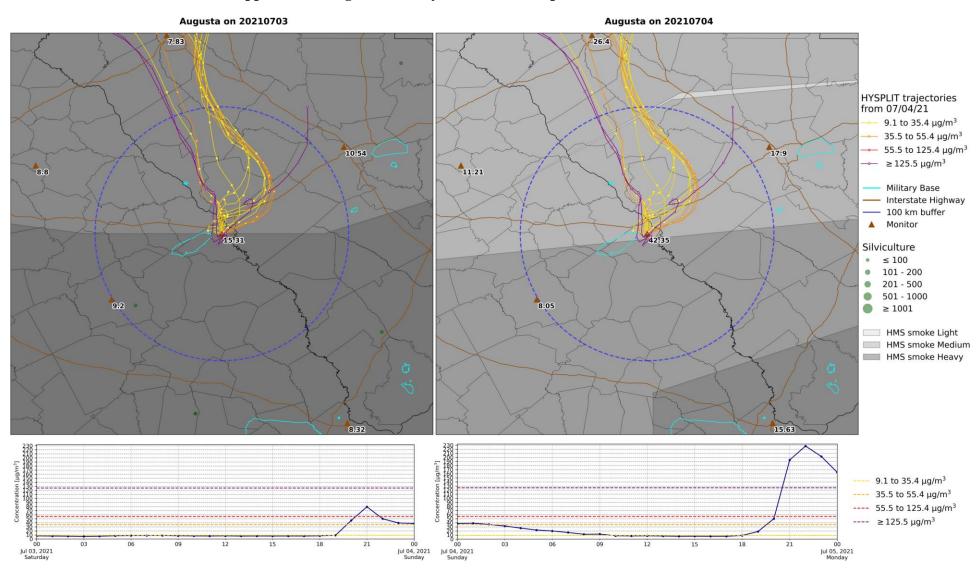


Figure 1. The top left map contains HMS smoke plumes and $PM_{2.5}$ concentrations at the Augusta $PM_{2.5}$ monitor on July 03, 2021. The top right map contains HMS smoke plumes and $PM_{2.5}$ concentrations on July 04, 2021. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Augusta $PM_{2.5}$ monitor on July 04, 2021. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows hourly observations from the FEM monitor. The dashed lines correspond to the AQI breakpoints for $PM_{2.5}$ concentrations.

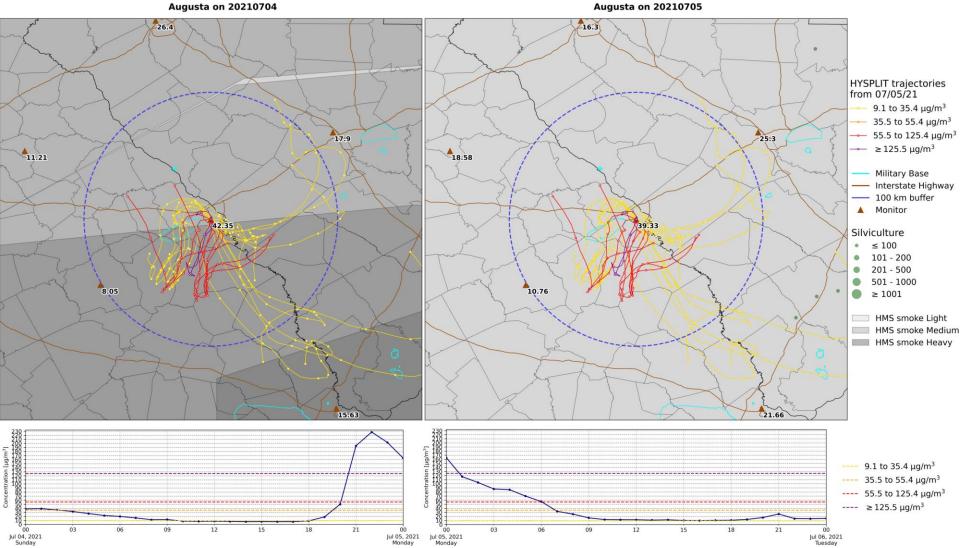


Figure 2. The top left map contains HMS smoke plumes and $PM_{2.5}$ concentrations at the Augusta $PM_{2.5}$ monitor on July 04, 2021. The top right map contains HMS smoke plumes and $PM_{2.5}$ concentrations on July 05, 2021. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Augusta $PM_{2.5}$ monitor on July 05, 2021. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows hourly observations from the FEM monitor. The dashed lines correspond to the AQI breakpoints for $PM_{2.5}$ concentrations.

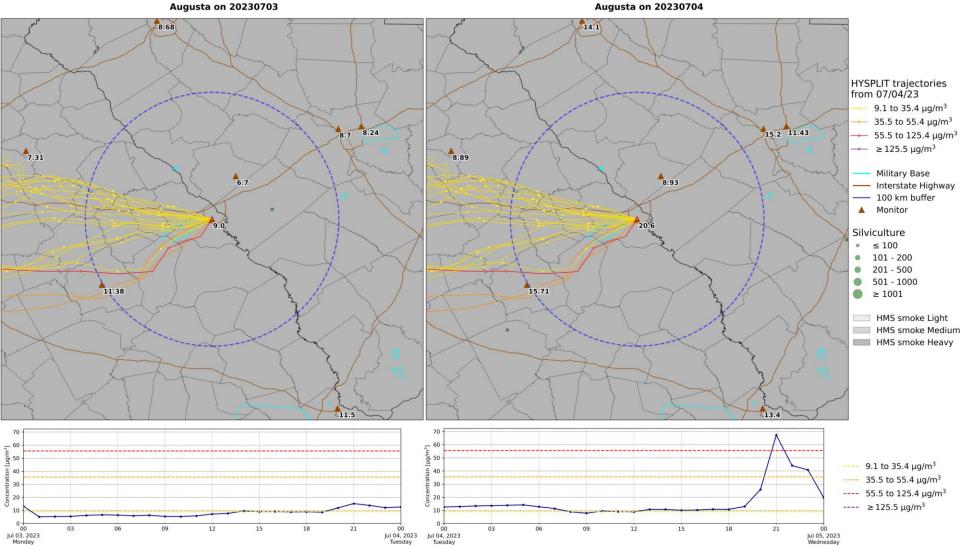


Figure 3. The top left map contains HMS smoke plumes and $PM_{2.5}$ concentrations at the Augusta $PM_{2.5}$ monitor on July 03, 2023. The top right map contains HMS smoke plumes and $PM_{2.5}$ concentrations on July 04, 2023. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Augusta $PM_{2.5}$ monitor on July 04, 2023. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows hourly observations from the FEM monitor. The dashed lines correspond to the AQI breakpoints for $PM_{2.5}$ concentrations.