

Appendix A. Macon-Allied Prescribed Fire Exceptional Events Plots

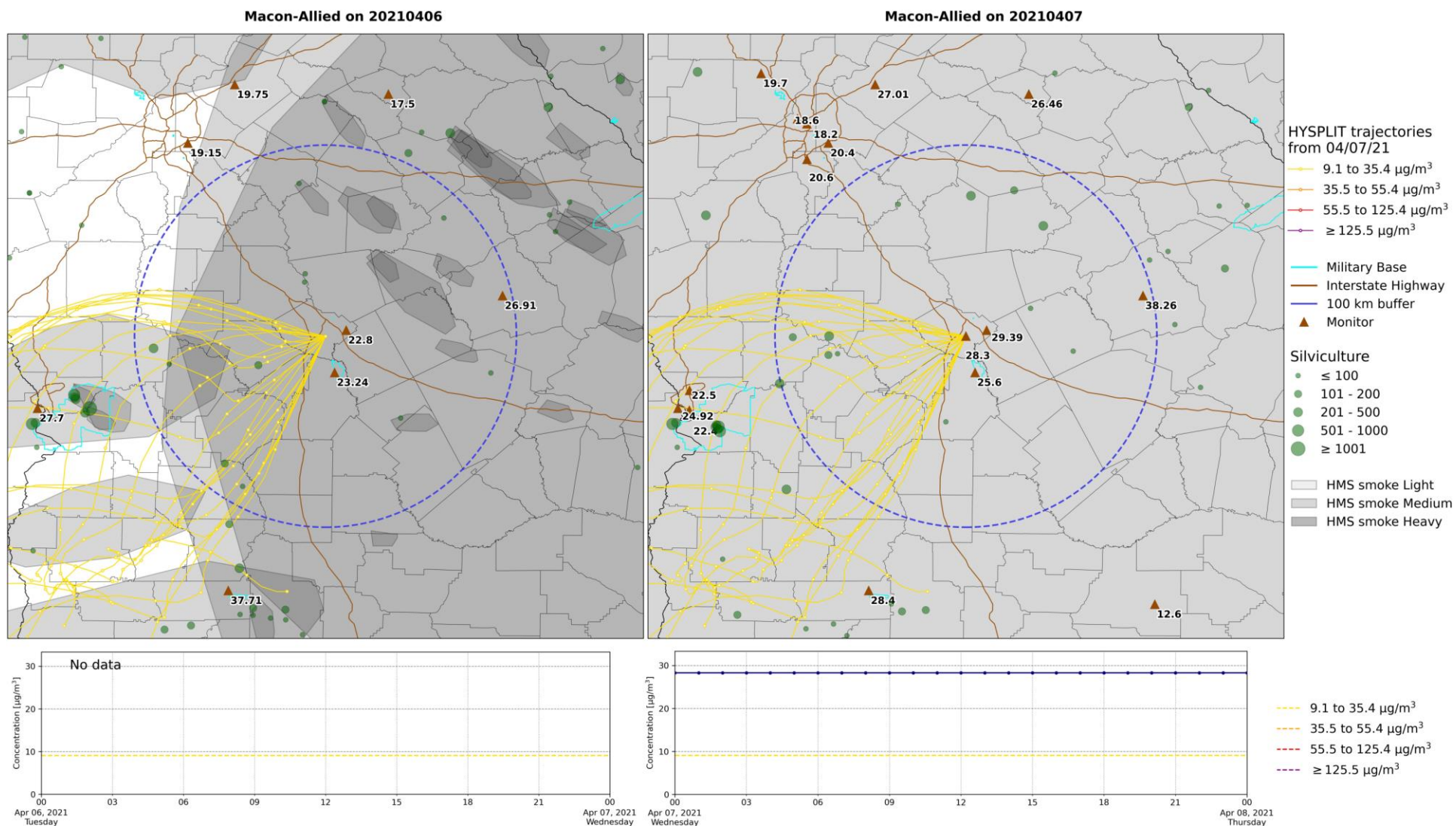


Figure 1A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on April 6, 2021. The top right map contains the same information for April 7, 2021. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on April 6, 2021. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows calculated hourly values from daily observations from the FRM monitor. The dashed lines correspond to the AQI breakpoints for $\text{PM}_{2.5}$ concentrations.

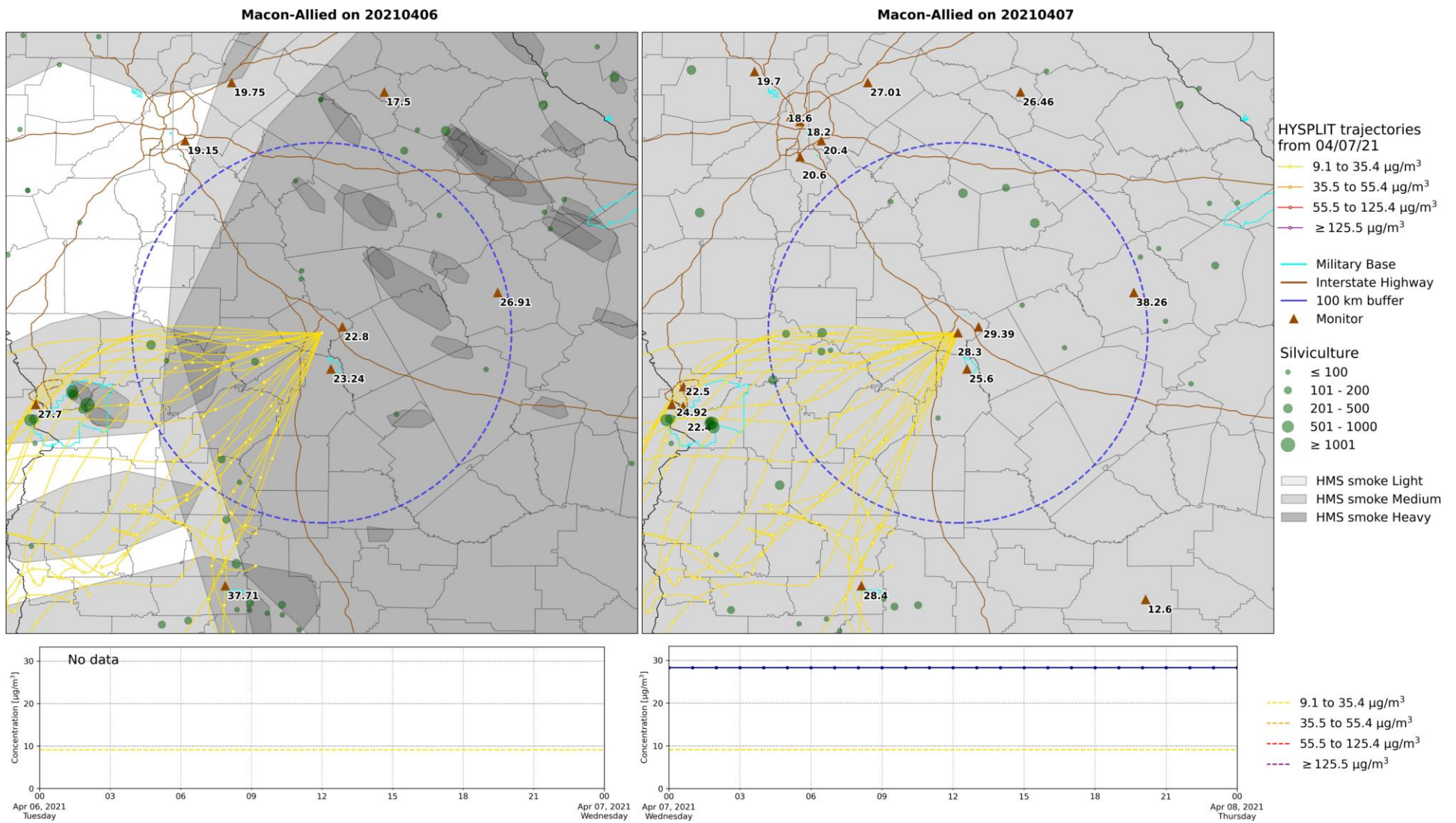


Figure 1B. The same as Figure 1A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.

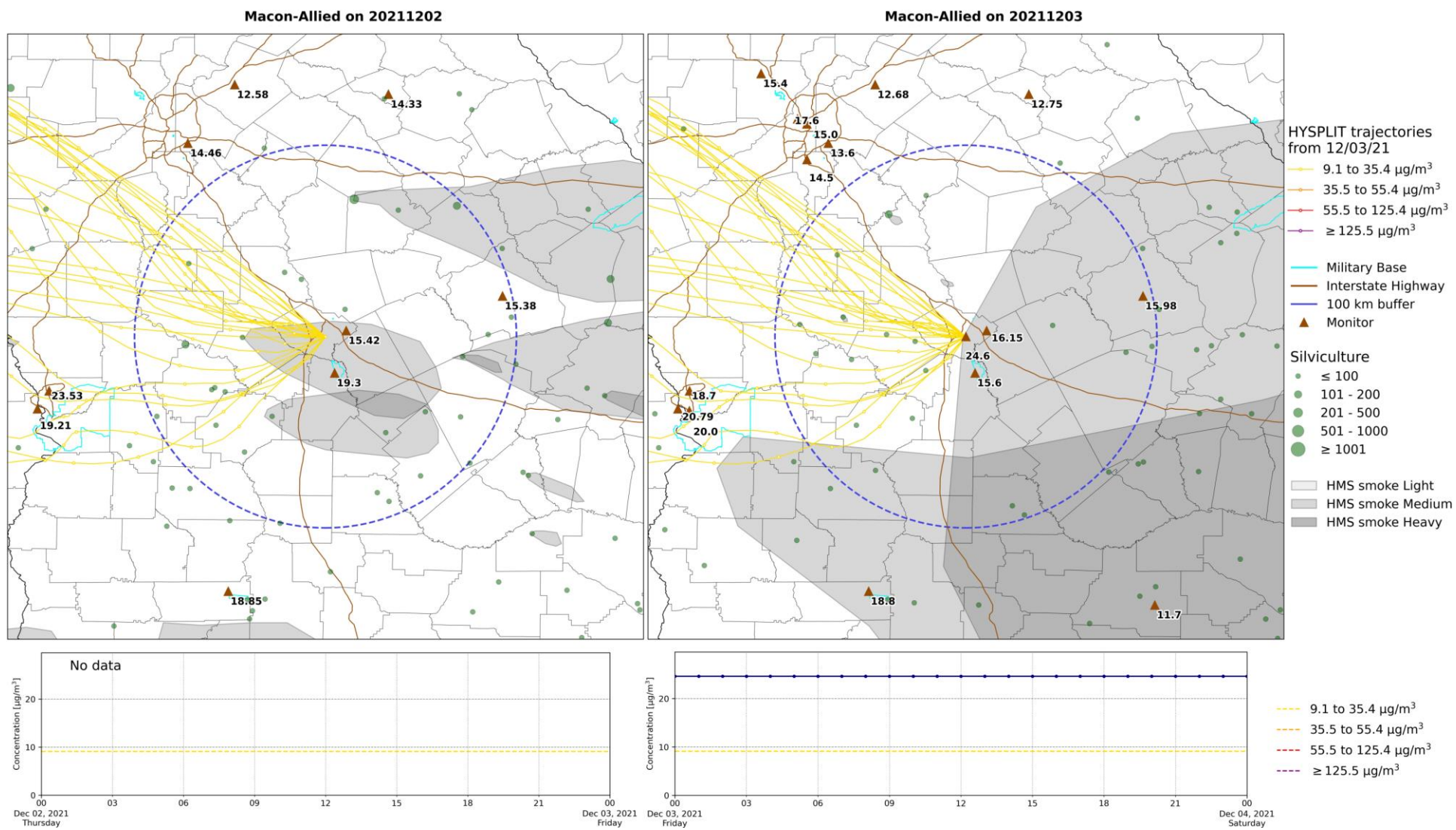


Figure 2A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on December 2, 2021. The top right map contains the same information for December 3, 2021. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on December 3, 2021. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows calculated hourly values from daily observations from the FRM monitor. The dashed lines correspond to the AQI breakpoints for $\text{PM}_{2.5}$ concentrations.

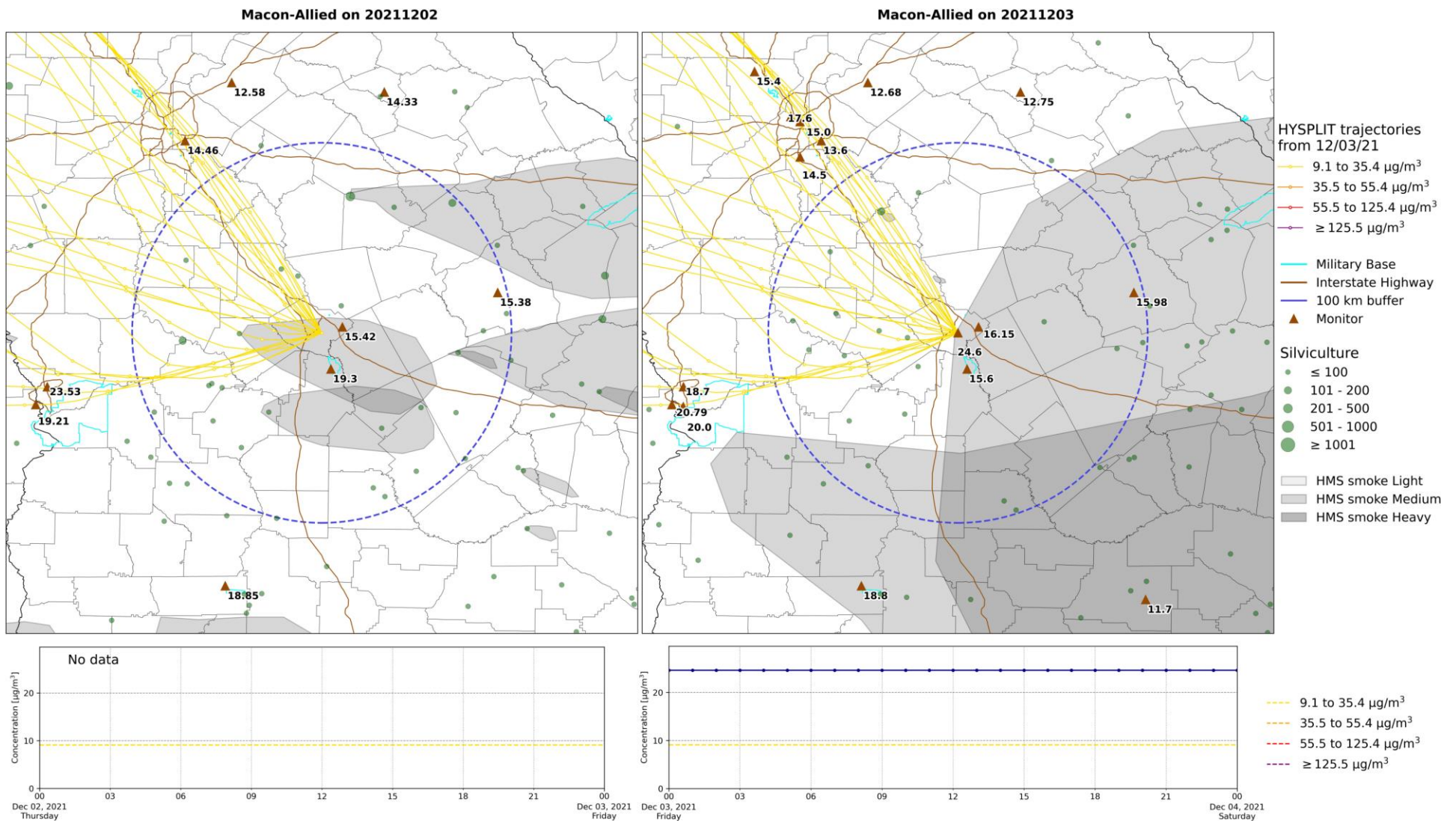


Figure 2B. The same as Figure 2A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.

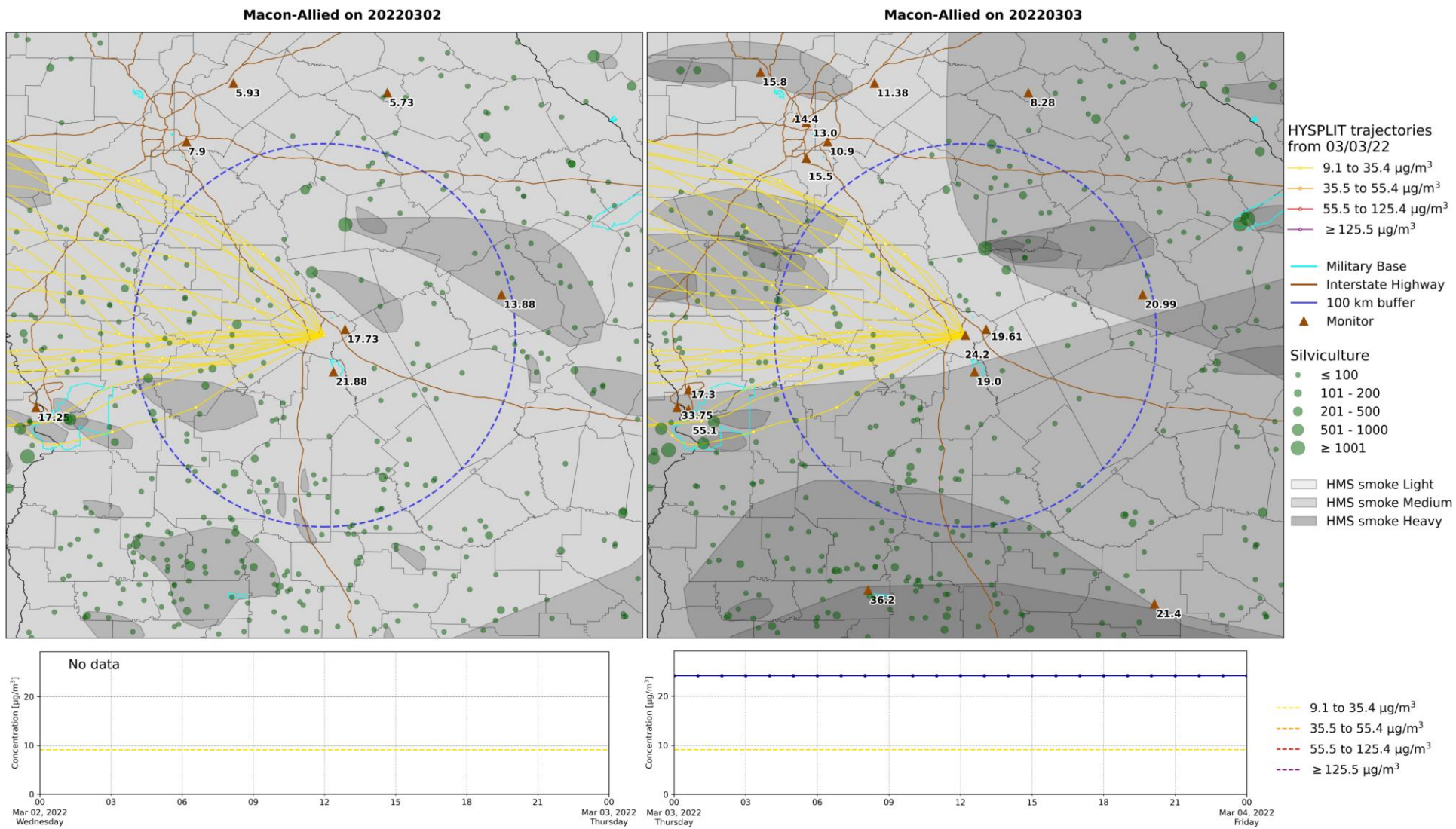


Figure 3A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on March 2, 2022. The top right map contains the same information for March 3, 2022. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on March 3, 2022. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows calculated hourly values from daily observations from the FRM monitor. The dashed lines correspond to the AQI breakpoints for $\text{PM}_{2.5}$ concentrations.

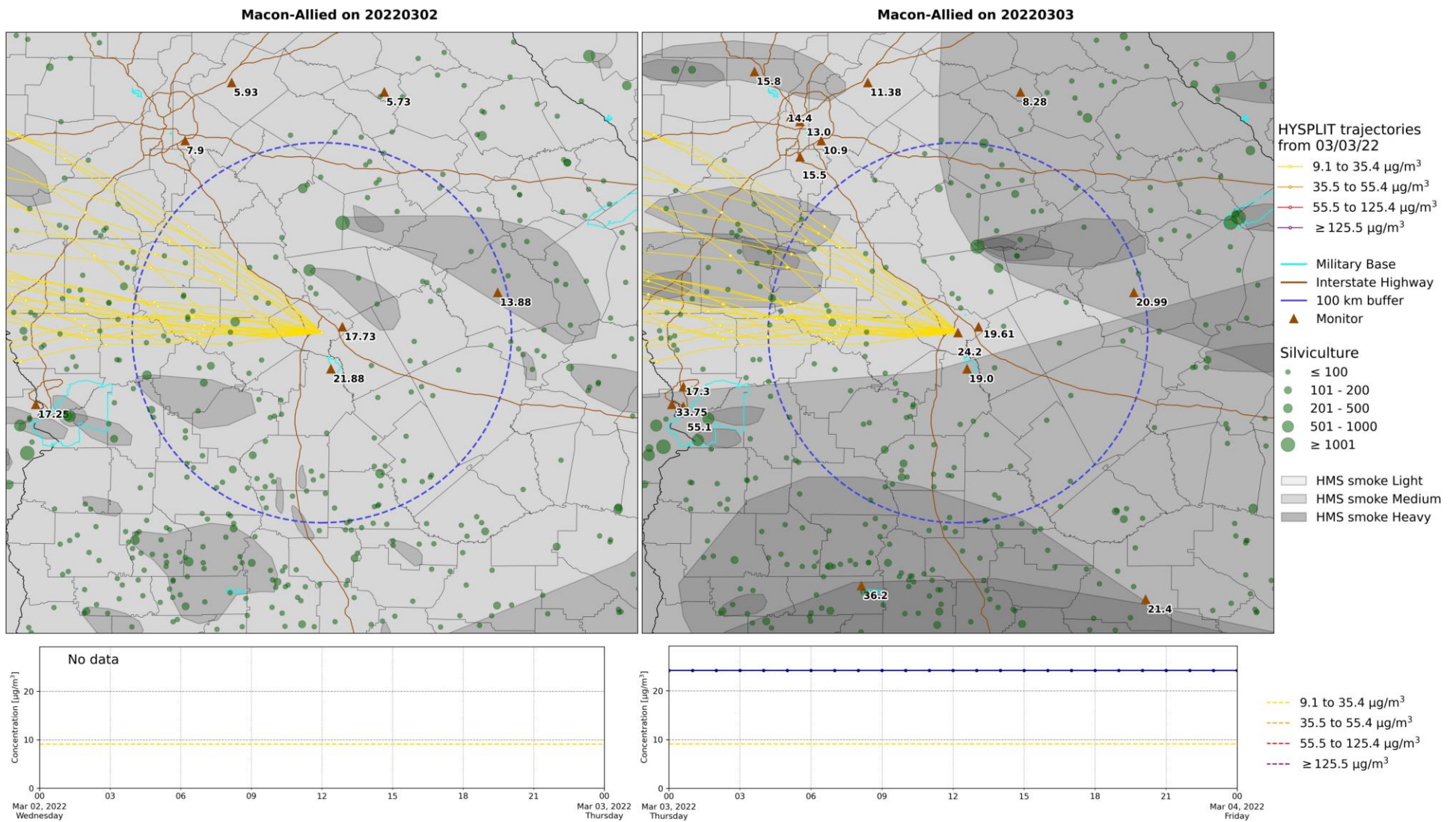


Figure 3B. The same as Figure 3A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.

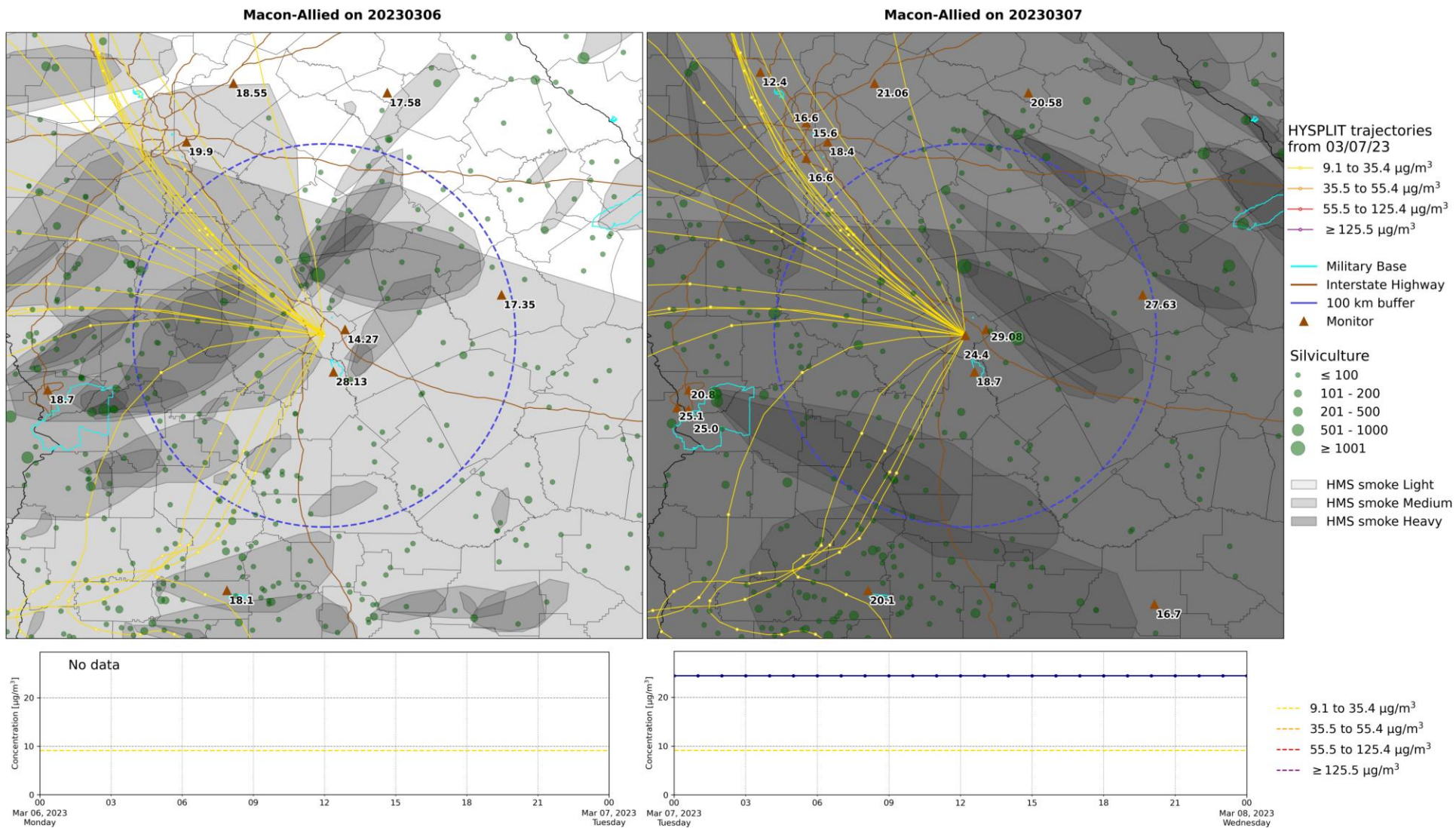


Figure 4A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on March 6, 2023. The top right map contains the same information for March 7, 2023. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on March 7, 2023. HYSPLIT markers are spaced in 3-hour intervals. In the time series plots, the blue solid line shows calculated hourly values from daily observations from the FRM monitor. The dashed lines correspond to the AQI breakpoints for $\text{PM}_{2.5}$ concentrations.

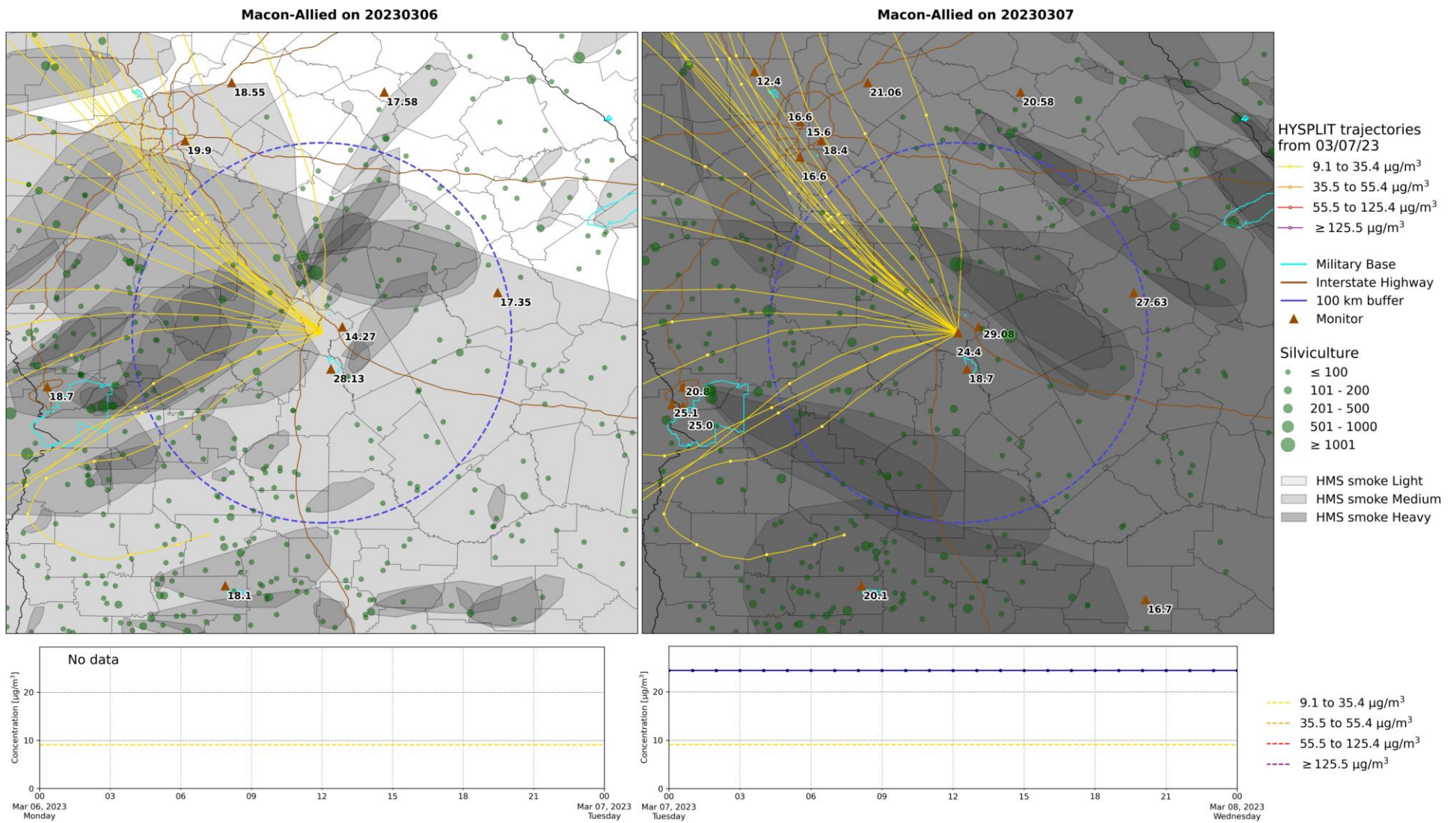


Figure 4B. The same as Figure 4A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.

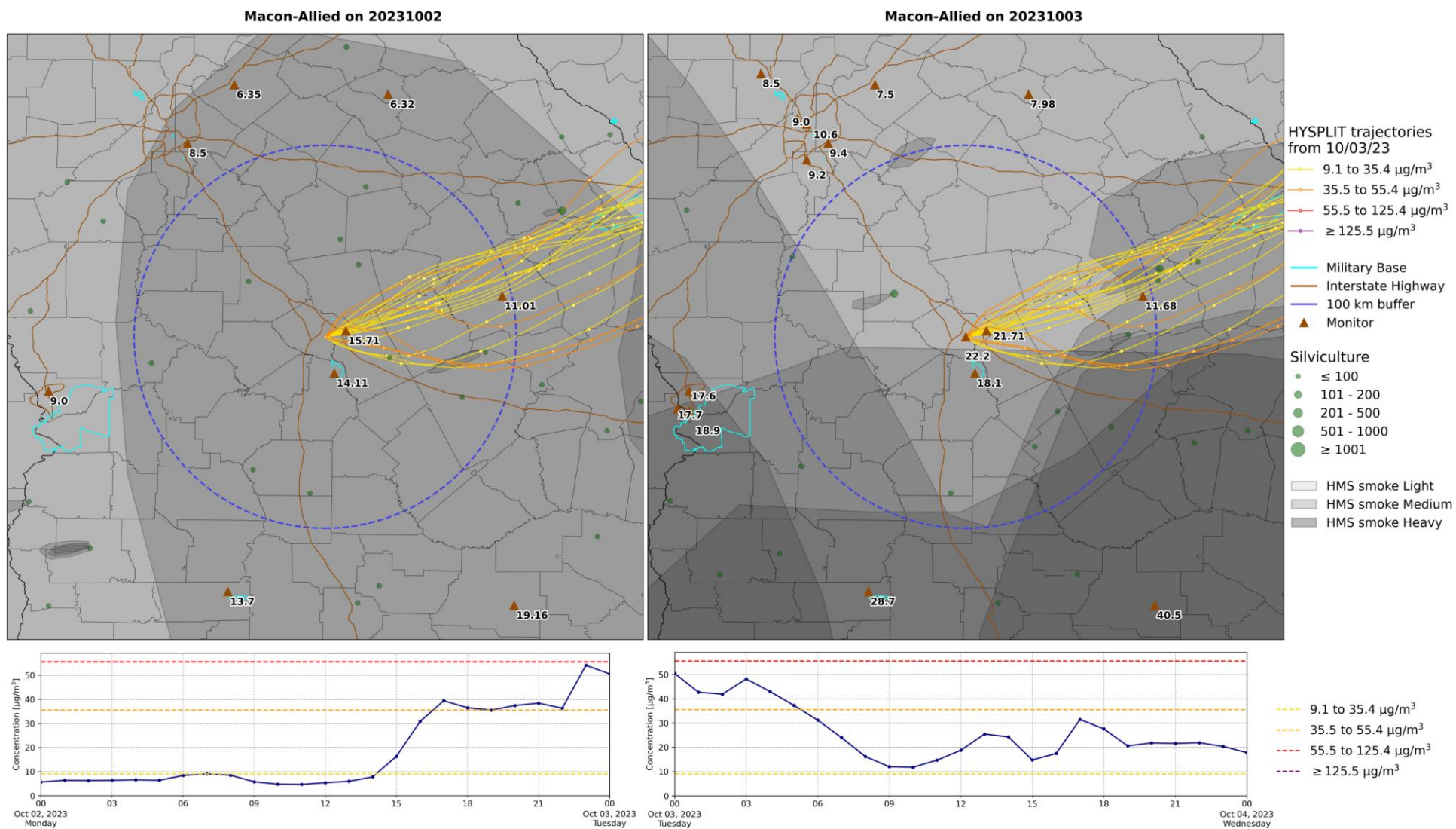


Figure 5A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on October 2, 2023. The top right map contains the same information for October 3, 2023. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on October 3, 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 $\text{PM}_{2.5}$ concentrations.

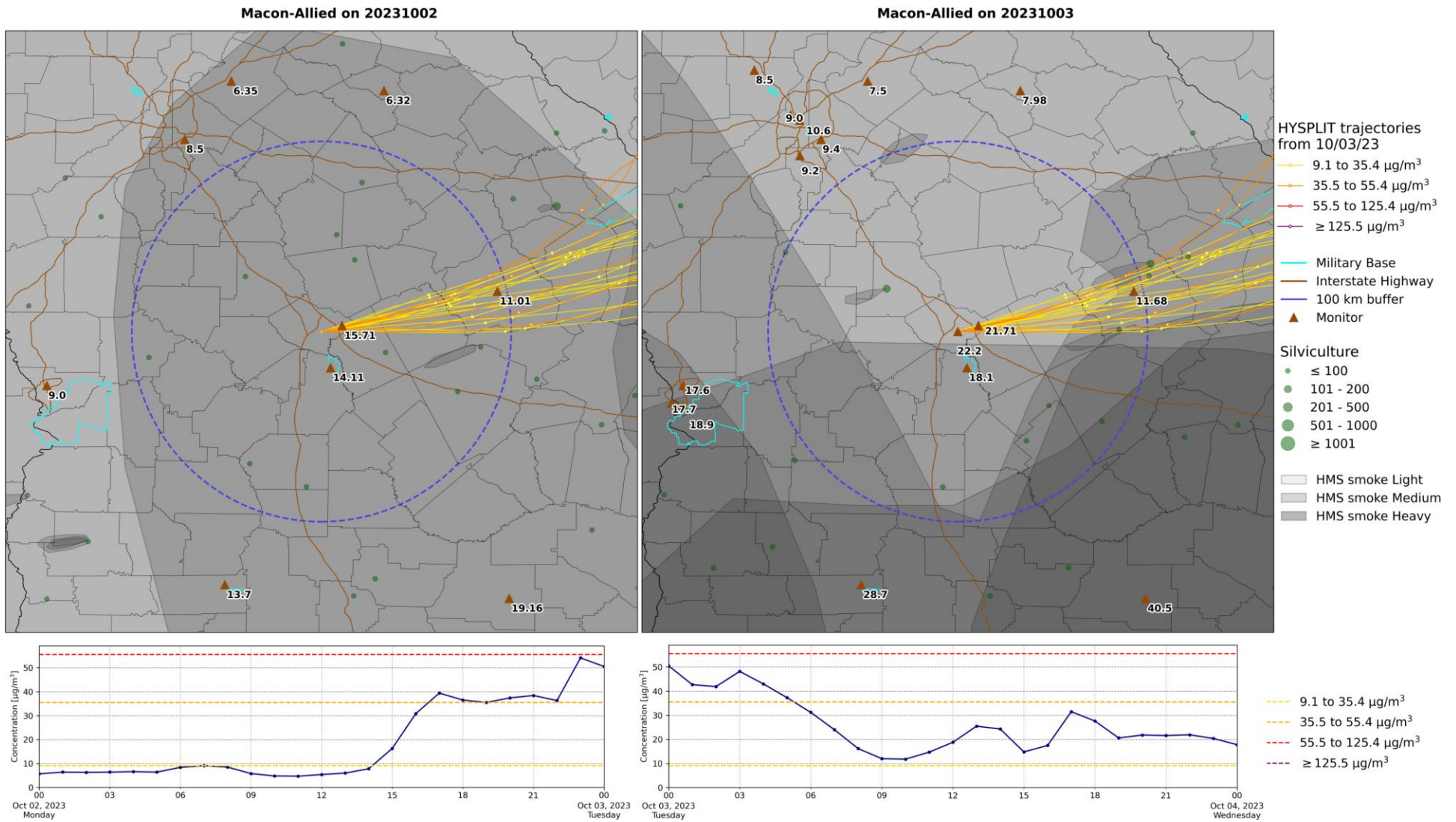


Figure 5B. The same as Figure 5A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.

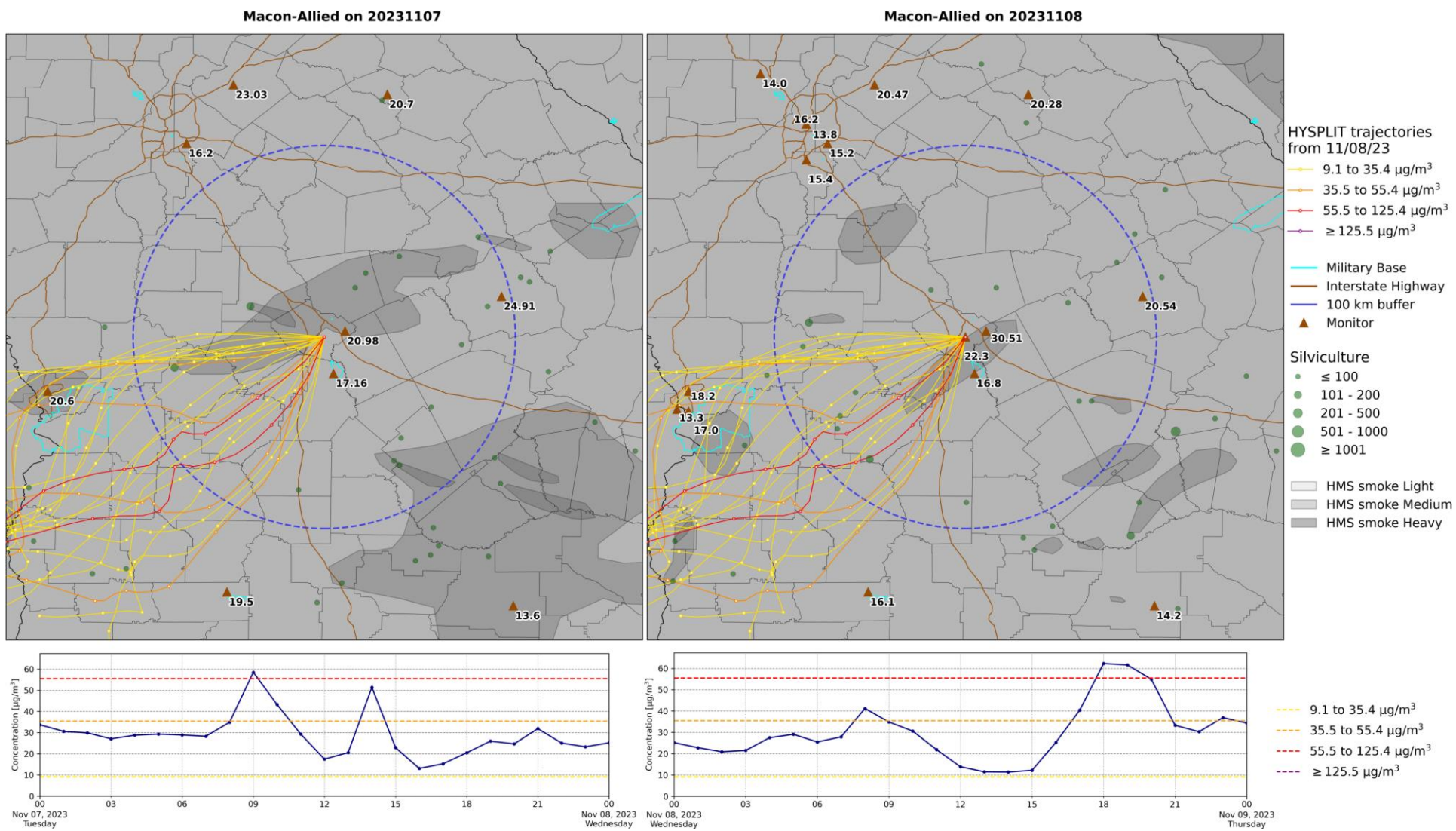


Figure 6A. The top left map contains burn permits issued, HMS smoke plumes, and 24-hour $\text{PM}_{2.5}$ concentrations at the Macon-Allied $\text{PM}_{2.5}$ monitor on November 7, 2023. The top right map contains the same information for November 8, 2023. Both maps contain HYSPLIT back trajectories (released at 100 m, 24-hour duration) from the Macon-Allied $\text{PM}_{2.5}$ monitor on November 8, 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 $\text{PM}_{2.5}$ concentrations.

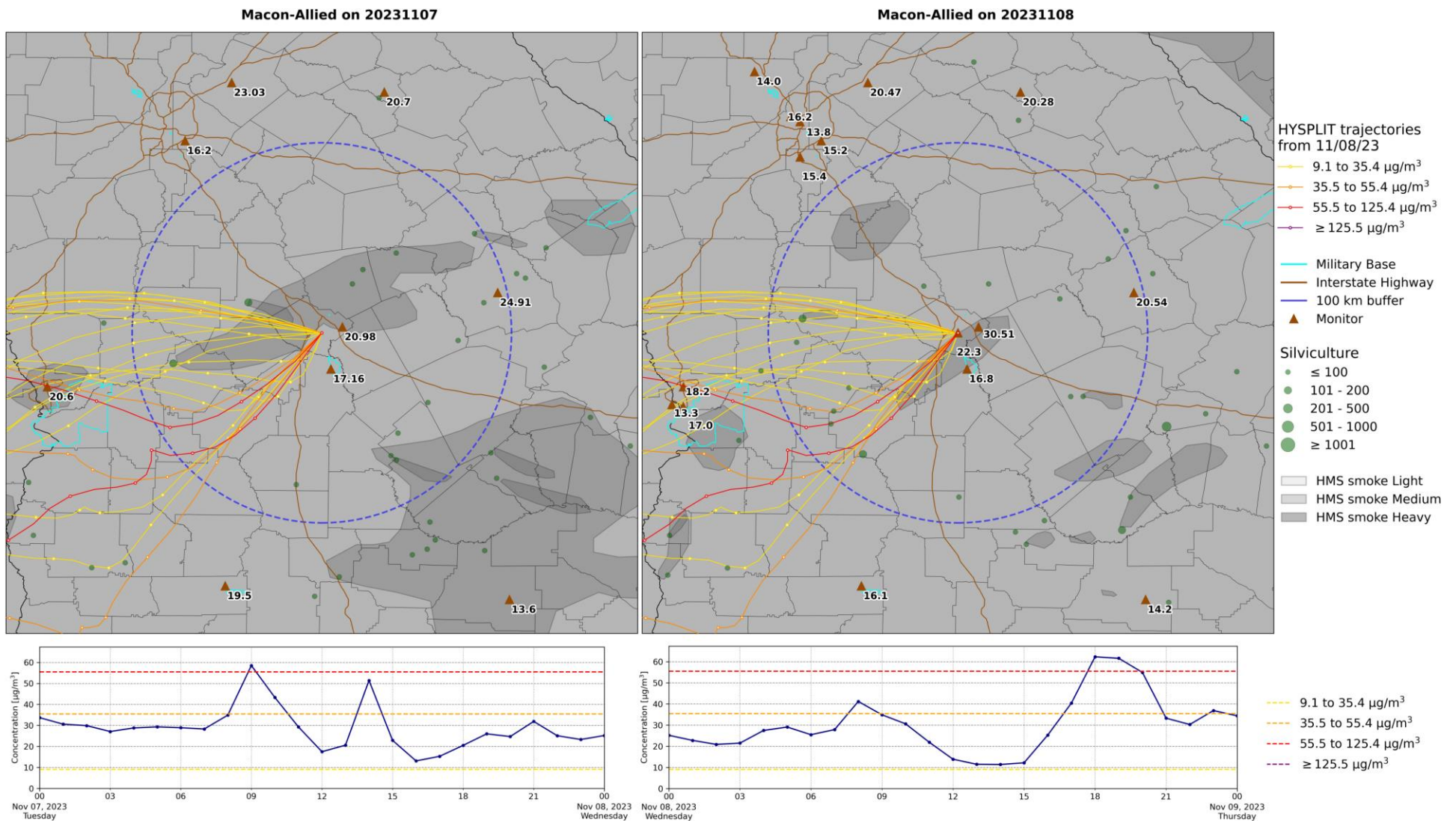


Figure 6B. The same as Figure 6A except HYSPLIT back trajectories are released at 500 m from the Macon-Allied $\text{PM}_{2.5}$ monitor.