State of Mississippi

TATE REEVES
Governor

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHRIS WELLS, EXECUTIVE DIRECTOR

Public Notice

Exceptional Events Demonstration for PM2.5 Exceedances in Hattiesburg, Mississippi (2022-2023)

The Mississippi Department of Environmental Quality (MDEQ) is providing notice and opportunity for public comment on an exceptional events demonstration for the Hattiesburg PM2.5 monitoring site (AQS ID: 28-035-0004) for calendar years 2022 and 2023.

Purpose of This Document

MDEQ is requesting that the U.S. Environmental Protection Agency (EPA) exclude certain PM2.5 air quality monitoring data from regulatory decisions due to exceptional events. These events included smoke impacts from prescribed fires, wildfires (including Canadian wildfires), and a Saharan dust event that affected air quality in Hattiesburg during 2022 and 2023.

Overview of Exceptional Events

The demonstration covers 20 distinct event periods:

2022 Events (8 total):

- Five prescribed fire events
- Two wildfire events
- One Saharan dust event

2023 Events (12 total):

- Three prescribed fire events
- Seven Canadian wildfire events
- Two regional wildfire events

Regulatory Significance

This request is significant because:

- It affects the area's attainment status under the 2024 revised annual PM2.5 National Ambient Air Quality Standards (NAAQS)
- It impacts the area's 2021-2023 design value calculation
- Current monitoring data shows:
    - 2021-2023 Design Value: 9.2 µg/m^3
    - 2023 Annual Mean: 10.0 µg/m^3
    - Design Value with Requested Exclusions: 8.7 µg/m^3

Supporting Evidence

The demonstration includes comprehensive technical evidence for each event, including:

- Satellite imagery showing smoke/dust plumes
- HYSPLIT trajectory analyses demonstrating transport
- Surface meteorological data
- Upper air analyses
- Historical concentration comparisons

Public Comment Period

MDEQ is providing a 30-day public comment period on this exceptional events demonstration.

How to Comment:

- Submit written comments to Rodney Cuevas, RCuevas@mdeq.ms.gov.
- Comments must be received by January 31st, 2025.

For questions or additional information, please contact: Rodney Cuevas, RCuevas@mdeq.ms.gov.

Next Steps

After the public comment period:

1. MDEQ will review and address all comments received
2. The demonstration and public comments will be submitted to EPA Region 4
3. EPA will review the demonstration and make a final concurrence decision

This notice is being provided in accordance with the EPA's Exceptional Events Rule (40 CFR 50.14).

Hattiesburg, Mississippi PM2.5 Exceptional Event Demonstration
Years: 2022 and 2023
Concurrence Request
Submitted to: EPA, Region 4
Prepared by: Rodney Cuevas, Mississippi Department of Environmental Quality
Date: December 2024

Contents

Executive Summary

Overview

The Mississippi Department of Environmental Quality (MDEQ) requests EPA's concurrence on excluding PM2.5 concentration data from multiple exceptional events that affected the Hattiesburg monitoring site (AQS ID: 28-035-0004) during 2022 and 2023. These events significantly impacted the monitor's design value for the 2024 annual PM2.5 NAAQS.

Current Design Value (2021-2023): 9.2 µg/m^3

Exceptional Events Summary

1. Prescribed Fire Events (2022)

Date	Concentration (Ug/m3)
February 15-16	18.4, 17.1
March 3-5	22.5, 35.5, 27.7
April 4	16.8
October 10-11	21.0, 25.9
November 2-3	15.5, 18.7

2. Wildfire Events (2022)

Date	Concentration (Ug/m3)
May 12	18.5
September 20	18.8

3. Saharan Dust Event (2022)

Date	Concentration (Ug/m3)
June 13-15	30.4, 23.3, 20.1

4. Prescribed Fire Events (2023)

Date	Concentration (Ug/m3)
February 28	20.0
March 5	20.2
March 21	25.7

5. Mexico/Central American Wildfire (2023)

Date	Concentration (Ug/m3)
March 6-9	24.7, 19.7, 30.8, & 22.8

6. Canadian Wildfire Events (2023)

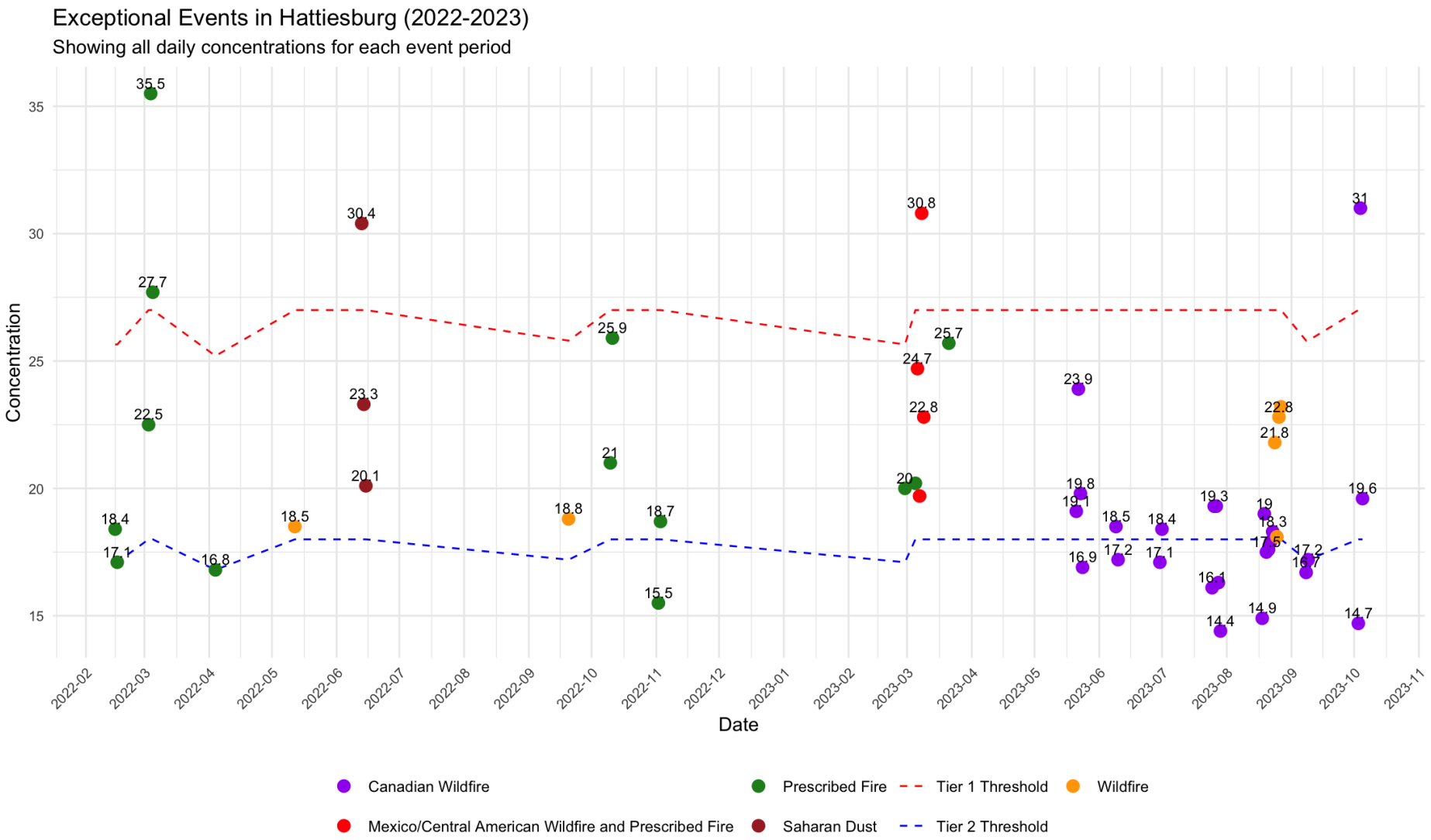
Date	Concentration Range (Ug/m3)
May 21-26	16.9-23.9
June 9-10	18.5, 17.2
June 30-July 1	17.1, 18.4
July 25-29	14.4-19.3
August 18-23	14.9-19.0
September 8-9	16.7, 17.2
October 3-5	14.7, 31.0, 19.6

7. Local/Regional Wildfire Events (2023)

Date	Concentration Range (Ug/m3)
August 24-27	21.8, 18.1, 22.8, 23.2

Exceptional Event Summary Table

Date_of_Event	Event_Type	AQS_Flag	Site_AQS_ID	Site_Name	Exceedance_Concentration	Tiers	Tier_1_Value	Tier_2_Value
February 15-16, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	18.4, 17.1	2	25.65	17.1
March 3-5, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	22.5, 35.5, 27.7	1, 2	27	18
April 4, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	16.8	2	25.2	16.8
May 12, 2022	Wildfire	RT	28-035-0004	Hattiesburg	18.5	2	27	18
June 13-15, 2022	Saharan Dust	RA	28-035-0004	Hattiesburg	30.4, 23.3, 20.1	2	27	18
September 20, 2022	Wildfire	RT	28-035-0004	Hattiesburg	18.8	2	25.8	17.2
October 10-11, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	21.0, 25.9	2	27	18
November 2-3, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	15.5, 18.7	2, 3	27	18
February 28, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	20.0	2	25.65	17.1
March 5, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	20.2	2	27	18
March 6-9, 2023	Mexico/Central American Wildfire and Prescribed Fire	RG/RM	28-035-0004	Hattiesburg	24.7, 19.7, 30.8, 22.8	1, 2	27	18
March 21, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	25.7	2	27	18
May 21-26, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	19.1, 23.9, 19.8, 16.9	2, 3	27	18
June 9-10, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	18.5, 17.2	2, 3	27	18
June 30-July 1, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	17.1, 18.4	2, 3	27	18
July 25-29, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	16.1, 19.3, 19.3, 16.3, 14.4	2, 3	27	18
August 18-23, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	14.9, 19.0, 17.5, 17.6, 17.9, 18.3	2, 3	27	18
August 24-27, 2023	Wildfire	RT	28-035-0004	Hattiesburg	21.8, 18.1, 22.8, 23.2	2, 3	27	18
September 8-9, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	16.7, 17.2	2, 3	25.8	17.2
October 3-5, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	14.7, 31.0, 19.6	1, 2, 3	27	18


Exceptional Events in Hattiesburg (2022-2023)
Showing all daily concentrations for each event period
Concentration
Date
35
30
25
20
15
2022-02
2022-03
2022-04
2022-05
2022-06
2022-07
2022-08
2022-09
2022-10
2022-11
2022-12
2023-01
2023-02
2023-03
2023-04
2023-05
2023-06
2023-07
2023-08
2023-09
2023-10
2023-11
35.5
30.4
27.7
25.9
30.8
31
25.7
24.7
23.9
23.3
22.5
22.8
22.8
21.8
21
20.1
20
19.8
19.1
19.6
19.3
19
18.4
18.8
18.7
18.5
18.5
18.4
18.3
17.5
17.1
16.8
17.2
17.1
17.2
16.9
16.7
16.1
15.5
14.9
14.7
14.4
Canadian Wildfire
Prescribed Fire
Tier 1 Threshold
Wildfire
Mexico/Central American Wildfire and Prescribed Fire
Saharan Dust
Tier 2 Threshold

Supporting Documentation

Each event is supported by comprehensive evidence including:

- Satellite imagery showing smoke/dust plumes.
- HYSPLIT trajectory analyses demonstrating transport.
- Surface meteorological data.
- Upper air analyses.
- Historical concentration comparisons.

Event Characteristics

The events were characterized by:

- Clear transport pathways from source to monitor.
- Concentrations significantly above historical baselines.
- Strong meteorological evidence supporting transport and impacts.
- Multiple lines of evidence establishing clear causal relationships.

Impact Analysis

These exceptional events contributed to elevated annual PM2.5 concentrations, particularly in 2023 where the annual mean reached 10.0 Ug/m3. Excluding these documented exceptional events would lower the 2021-2023 design value to 8.7 Ug/m, bringing the Hattiesburg area into compliance with the 2024 annual PM2.5 NAAQS.

EPA Exceptional Events Criteria

The demonstration provides evidence that each event meets EPA's criteria:

1. Affects air quality.
2. Not reasonably controllable or preventable.
3. Clear causal relationship exists.
4. Natural event or human activity unlikely to recur.
5. Documentation meets EPA requirements including public comment.

Request

MDEQ requests EPA's concurrence on these exceptional events to support appropriate regulatory determinations for the Hattiesburg area under the 2024 annual PM2.5 NAAQS.

Introduction

The Mississippi Department of Environmental Quality (MDEQ) has prepared this exceptional events demonstration to document how multiple exceptional events in 2022 and 2023 affected PM2.5 concentrations at the Hattiesburg monitoring site (AQS ID: 28-035-0004). This demonstration follows EPA's Exceptional Events Rule (EER) requirements and guidance, including the 2024 PM2.5 Wildland Fire Exceptional Events Tiering Document.

Concurrence Request Details

MDEQ requests EPA's concurrence on excluding PM2.5 concentration data from 20 distinct exceptional event periods that affected the Hattiesburg monitoring site during 2022 and 2023. These exclusions are regulatory significance as they affect:

- Attainment status under the 2024 revised annual PM2.5 NAAQS.
- The area's 2021-2023 design value calculation.

Current monitoring data shows:

- 2021-2023 Design Value: 9.2 $\mu g/m^3$.
- 2023 Annual Mean: 10.0 $\mu g/m^3$.
- Design Value with Requested Exclusions: 8.7 $\mu g/m^3$.

The events include:

2022 Events (8 total):

- Five prescribed fire events.
- Two wildfire events.
- One Saharan dust event.
- Concentrations ranging from 15.5 to 35.5 $\mu g/m^3$.

2023 Events (12 total):

- Three prescribed fire events.
- Seven Canadian wildfire events.
- Two regional wildfire events.
- Concentrations ranging from 14.4 to 31.0 $\mu g/m^3$.

Each event in this demonstration satisfies EPA's exceptional events criteria by showing:

- Clear causal relationship between the event and monitored concentrations.
- Event was not reasonably controllable or preventable.
- Event was either a natural event or human activity unlikely to recur.
- All procedural requirements have been met.

Document Overview

This demonstration provides comprehensive technical evidence supporting the exclusion of identified PM2.5 concentration data through:

Historical Data Analysis

- Comparison to 5-year historical record.
- Seasonal and annual trends.
- Percentile rankings of event concentrations.

Clear Causal Relationship Evidence

- Tiered analysis following EPA's PM2.5 guidance.
- Transport pathway documentation.
- Multiple lines of supporting evidence.

Technical Tools and Analyses

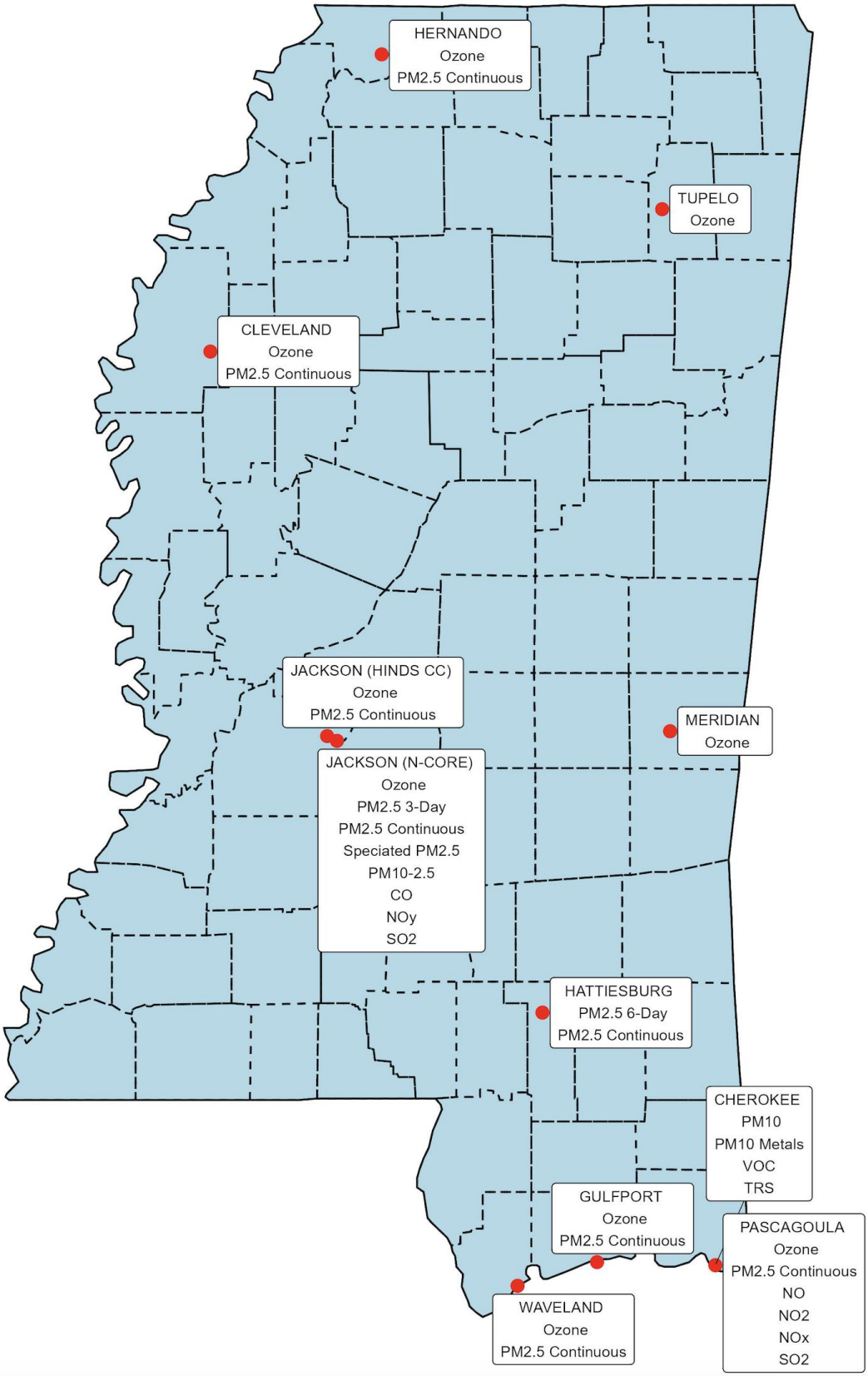
- HYSPLIT trajectory modeling.
- GOES satellite imagery.
- Surface meteorological data.
- Upper air analyses.
- Hour-by-hour concentration progressions.

The demonstration is organized chronologically by year and event, with each event analysis including:

- Event description and classification.
- Historical concentration comparisons.
- Clear causal relationship evidence.
- Transport pathway analysis.
- Meteorological conditions.
- Satellite imagery documentation.

Supporting documentation demonstrates how each event meets EPA's exceptional events criteria while establishing the regulatory significance of the requested data exclusions for the Hattiesburg area's attainment status under the 2024 annual PM2.5 NAAQS.

2024 MDEQ Air Monitoring Network



2022 Exceptional Events

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
February 15 and 16, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	18.4, 17.1	2	Prescribed Fire an Exceptional Event Demonstration: February 15 and 16, 2022

Synopsis: A cold front moved through on February 12th, followed by high pressure positioning directly overhead on February 14th and 15th, leading to light winds and stagnant surface conditions. During this period, multiple prescribed fires were ongoing in the southeast. Strong nocturnal inversions on the morning of the 15th, as well as another strong nocturnal inversion developing on the evening of the 15th, trapped smoke from prescribed fires close to the surface. This resulted in spike in hourly PM2.5 values during these two timeframes, contributing to a 24-hour daily average of 18.4 µg/m^3 at the Hattiesburg monitor on the 15th.

Tuesday, February 15, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0228Z February 15, 2022

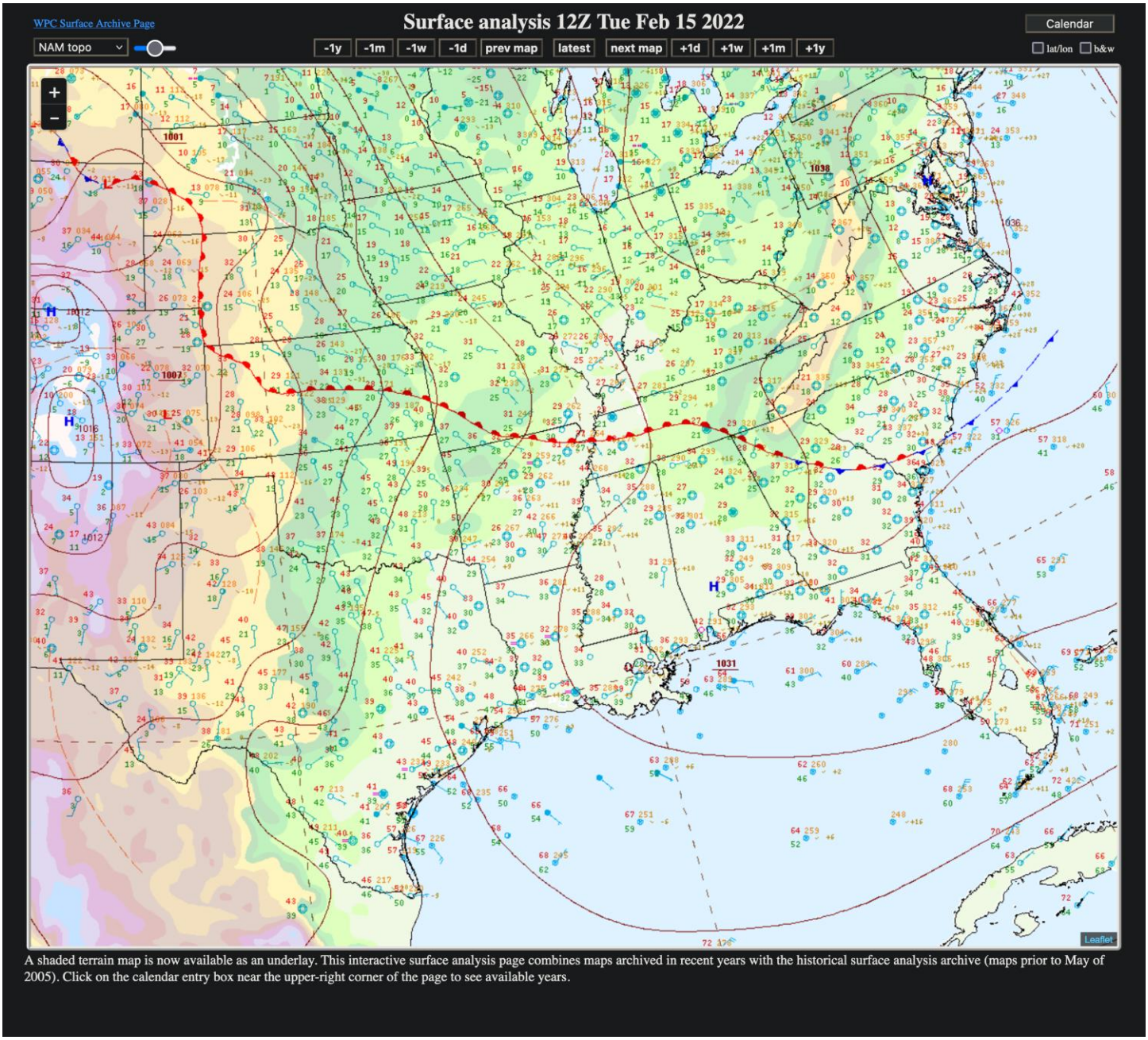
SMOKE:
South-central, Southeastern U.S...
Widespread agricultural burning activity was observed throughout the eastern South-central and southeastern United States. In the southeastern U.S. numerous fires blanketed the area with light density smoke that included large swaths of moderate heavy density smoke. The burning area starts in eastern Texas and continues east through the Gulf states ending in southern Virginia and the smoke in this area is generally moving northeast. Heavier areas of smoke were observed in the Florida panhandle, Alabama, Georgia, and South Carolina. Some heavier smoke could be present in Louisiana, Texas and Arkansas but cloud cover had moved in by this evening.

SMOKE/AEROSOL:
Bay of Campeche/Gulf of Mexico/Southern and Eastern Mexico/Northwestern Central America/Pacific Ocean South of Mexico and Central America...
The combination of thin density smoke from seasonal fires in Mexico and significant smoke contributions from Central America and other atmospheric pollutants including aerosols from oil and gas flaring and other industries in the region was visible today over the western the Bay of Campeche, western Gulf of Mexico, portions of southern and eastern Mexico, western Mexico off Baja California, northwestern Central America, and the Pacific Ocean off the southern and western coast of Mexico and Central America.

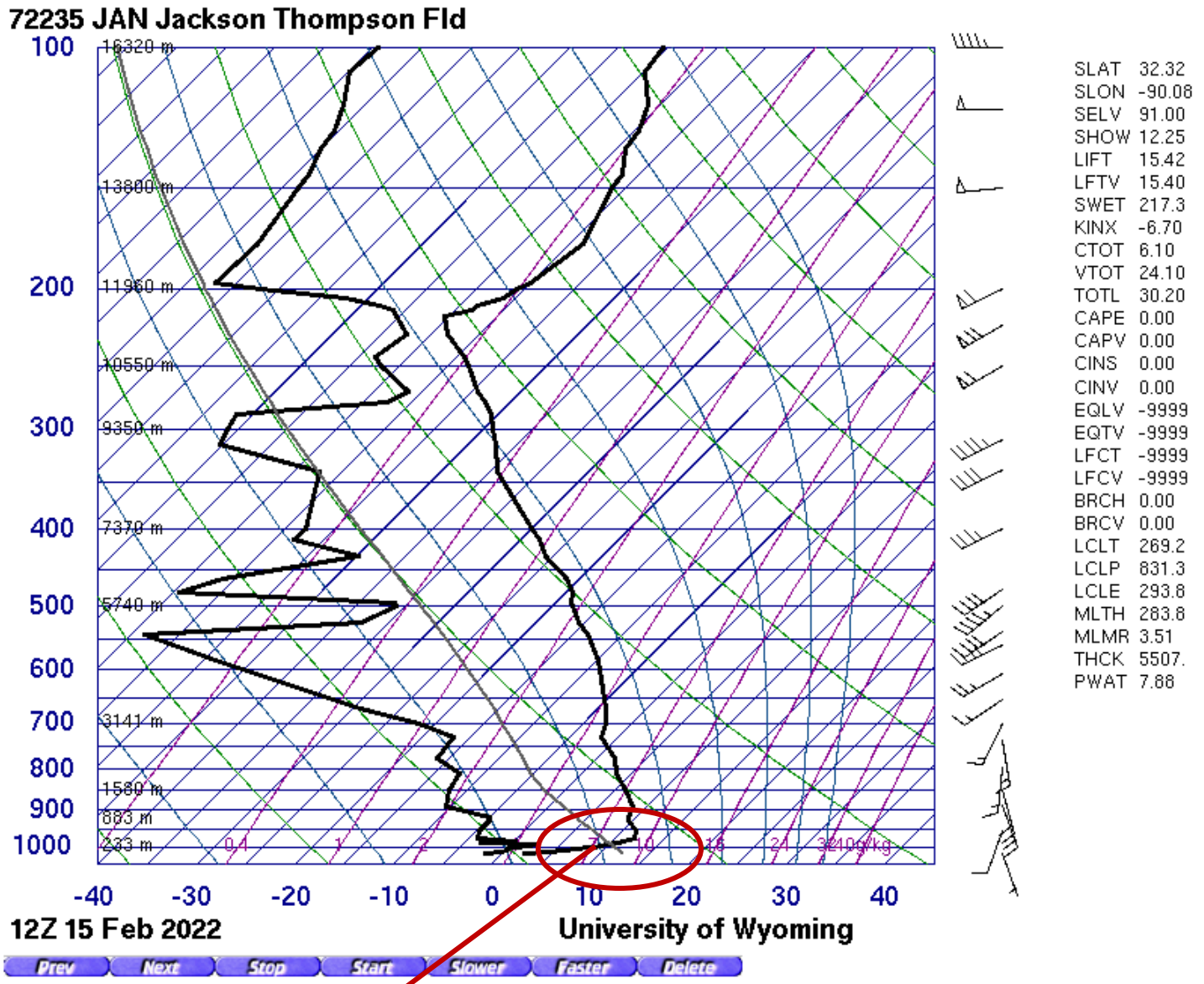
BLOWING DUST:
Arizona, New Mexico, Texas, Northwest Mexico...
Area's of generally light density blowing dust could be seen this evening in northwest Mexico, southern Arizona, the southern half of New Mexico, central and northern Texas. The dust was seen moving north or northeast as night approached.

Eglin

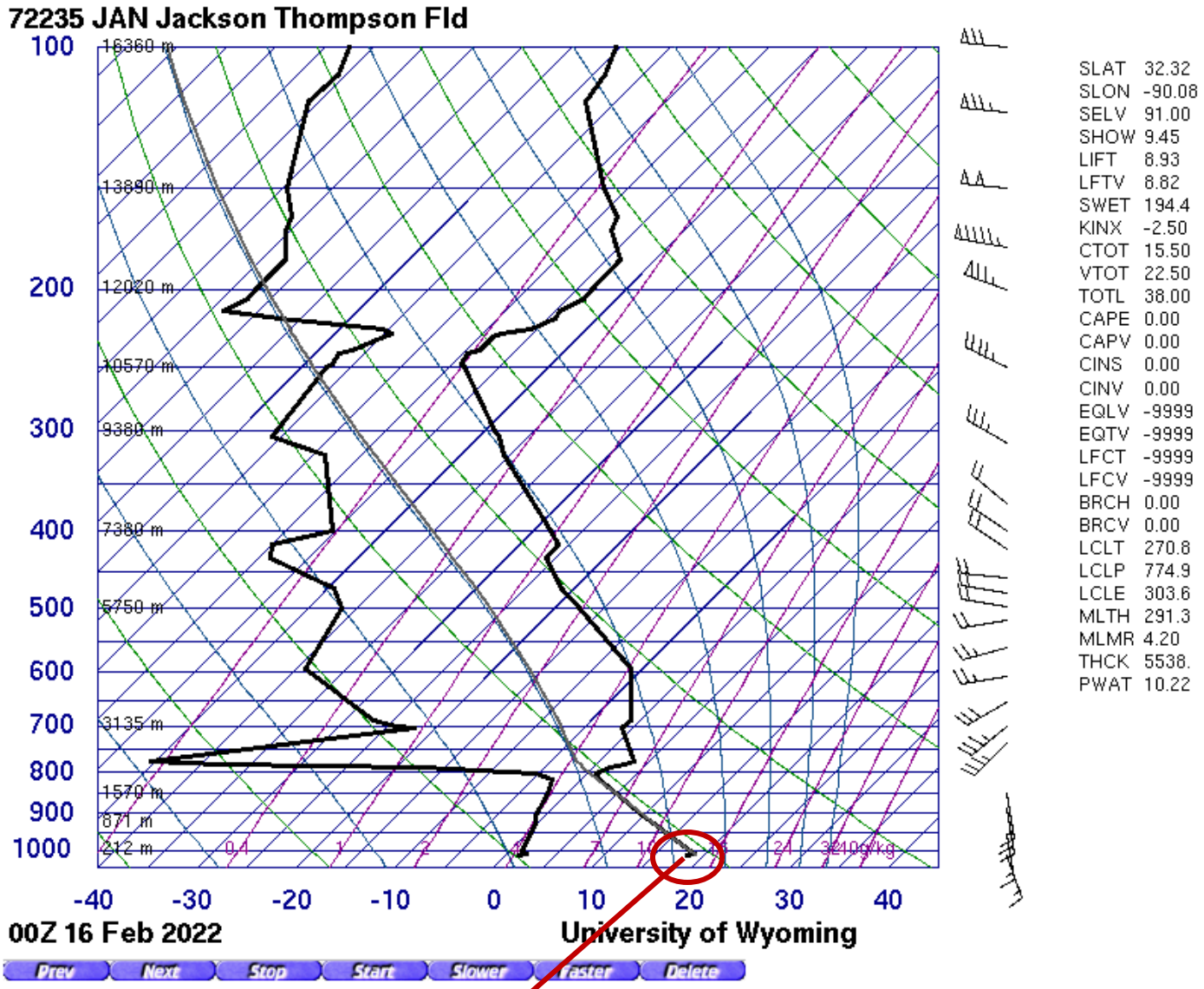
The 2022 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2022/2022B160229.html) narrative dated Feb 16th, 2022, at 0028Z (corresponding to February 15th, 2022, at 6:30 PM CDT) describes smoke from prescribed fires ongoing across the southeastern United States, which was responsible for elevated PM2.5 values.



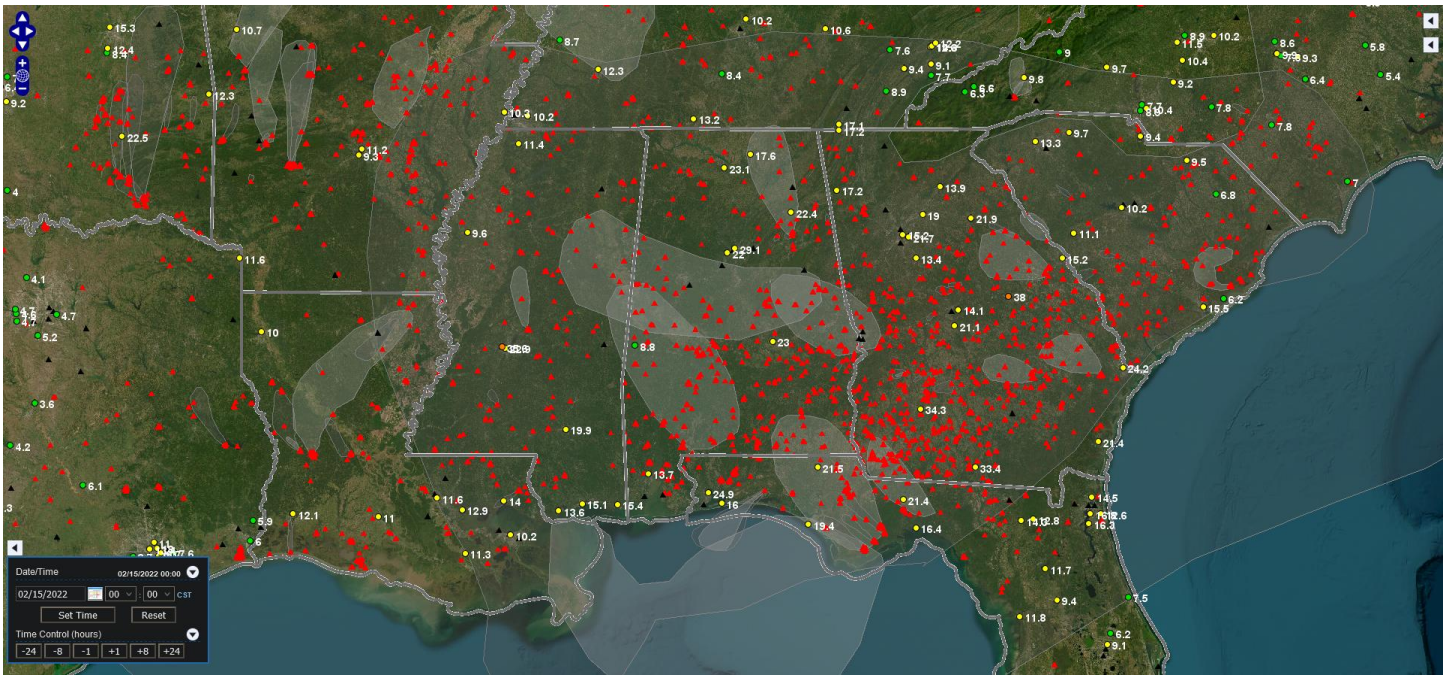
The 12Z surface analysis (February 15th, 2022, at 6 AM CDT) shows High Pressure centered over south-central Alabama, conducive for stagnant conditions, allowing for low level nocturnal inversion formation, helping to trap prescribed fire smoke close to the surface, elevating PM2.5 values, especially during the overnight hours.



The 12Z sounding from NWS Jackson the morning of the 15th shows Strong nocturnal resulting in trapping of smoke from previous days prescribed fires, increasing PM25 values.



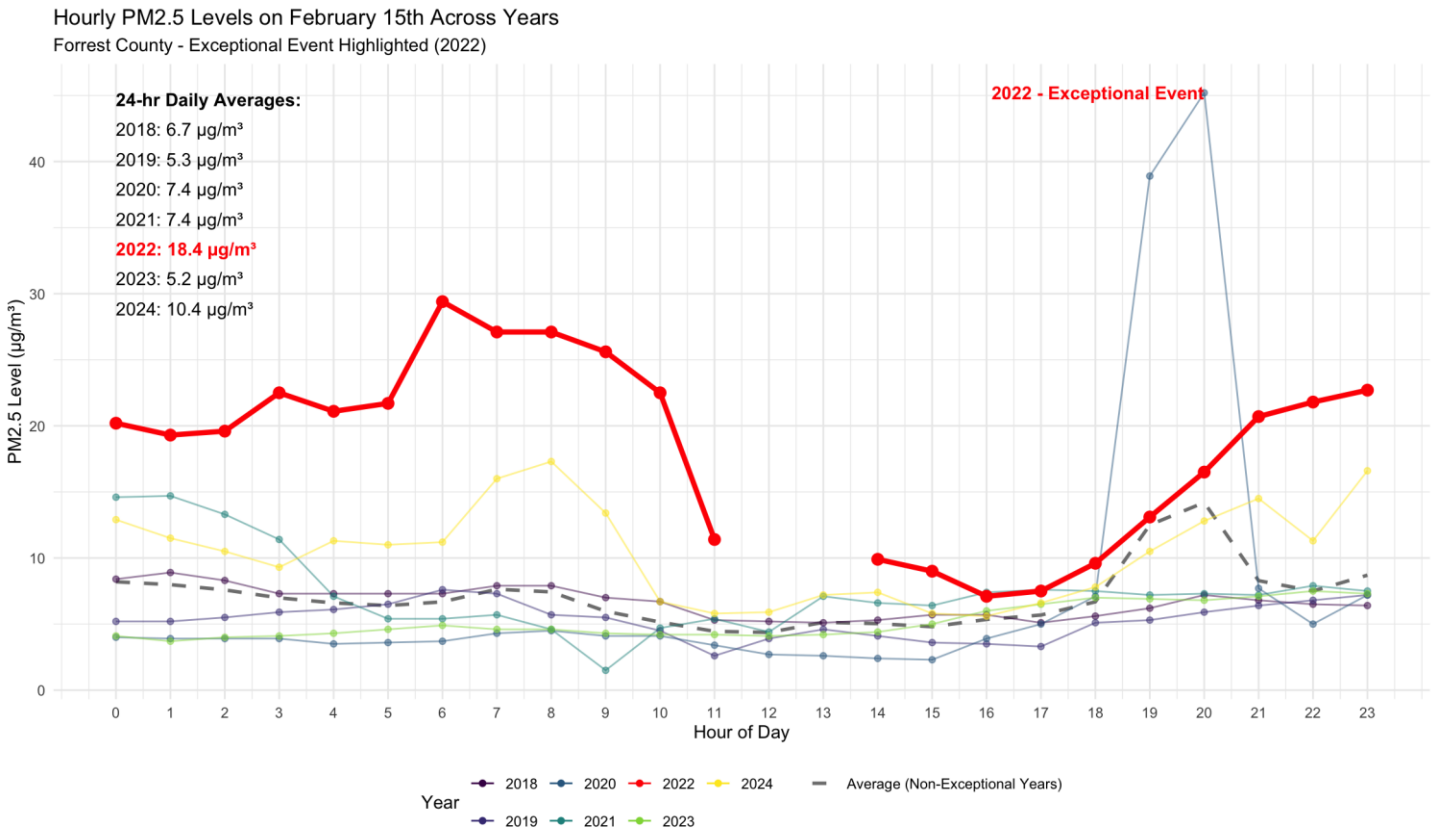
The 00Z sounding from NWS Jackson the evening of the 15th shows a developing low-level nocturnal inversion, as the sounding was launched at dusk. PM2.5 values decreased during peak heating with increasing mixing heights. However, due to ongoing prescribed burning on the 15th and continued strong high pressure in the area, PM2.5 values quickly increased during the evening and overnight hours, as pollutants were trapped near the surface by the re-development of the nocturnal inversion.



The AirNowTech Navigator image taken on, February 15th, 2022, above shows numerous ongoing prescribed fires across the southeast helping contribute to the smoke around the southeast, elevating PM2.5 values.

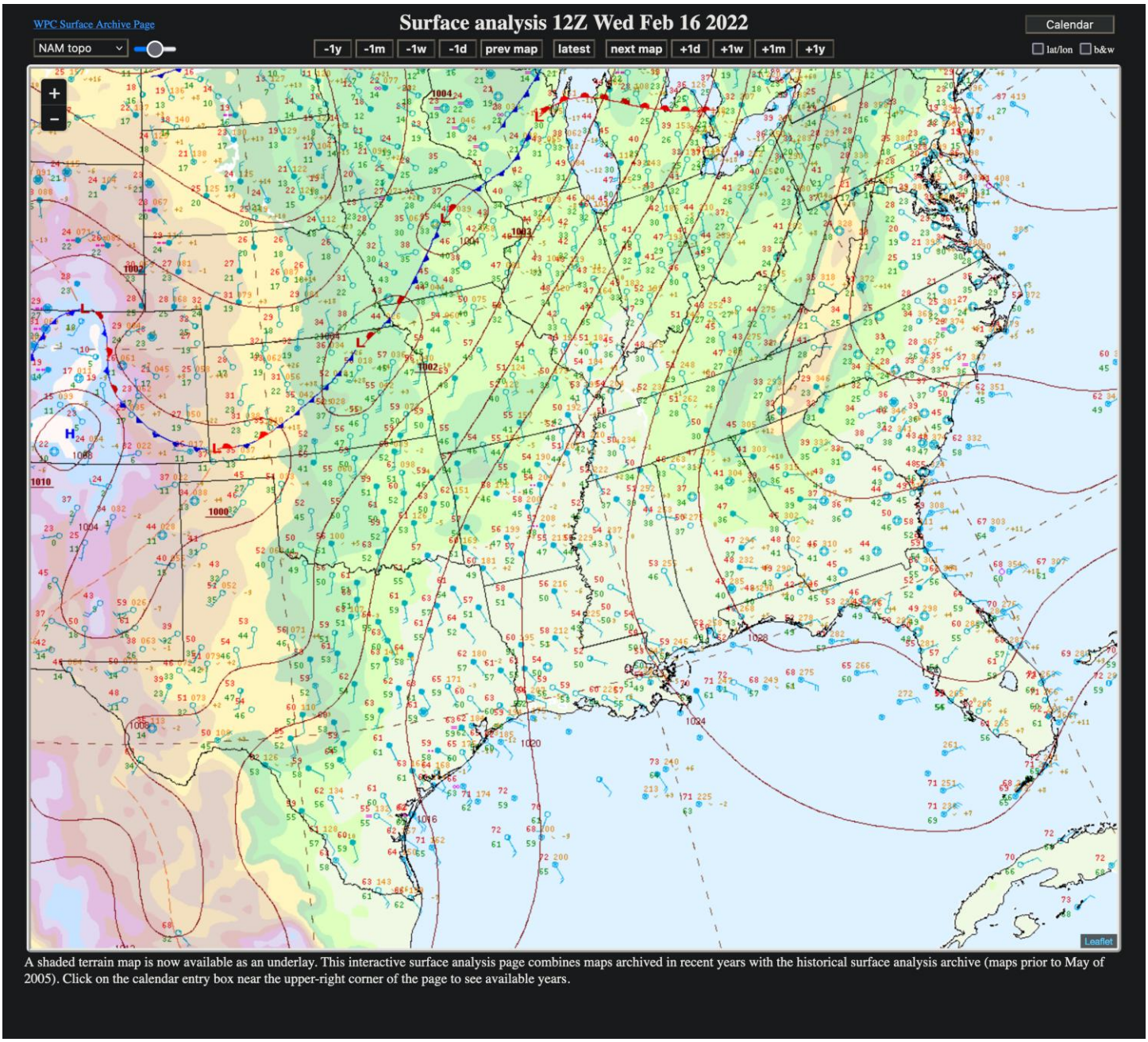
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	02/15/22	22.1	21.2	21.5	24.4	23	23.6	31.3	29	29	27.5	24.4	13.3	13.8	8.4	10.8	9.9	8.7	9.2	11.5	15	18.4	22.6	23.7	24.6	19.93	31.3

The Hattiesburg monitor's hourly PM2.5 values on February 15th began in the twenties and thirties, decreasing to the teens and single digits during peak heating of the day as mixing heights increased, improving ventilation. After sunset into the evening hours, redevelopment of a nocturnal inversion helped trap the day's prescribed fire smoke close to the surface once again, elevating PM2.5 values back into the twenties. This resulted in a daily average PM2.5 value of 19.93 µg/m^3 at the Hattiesburg monitor.

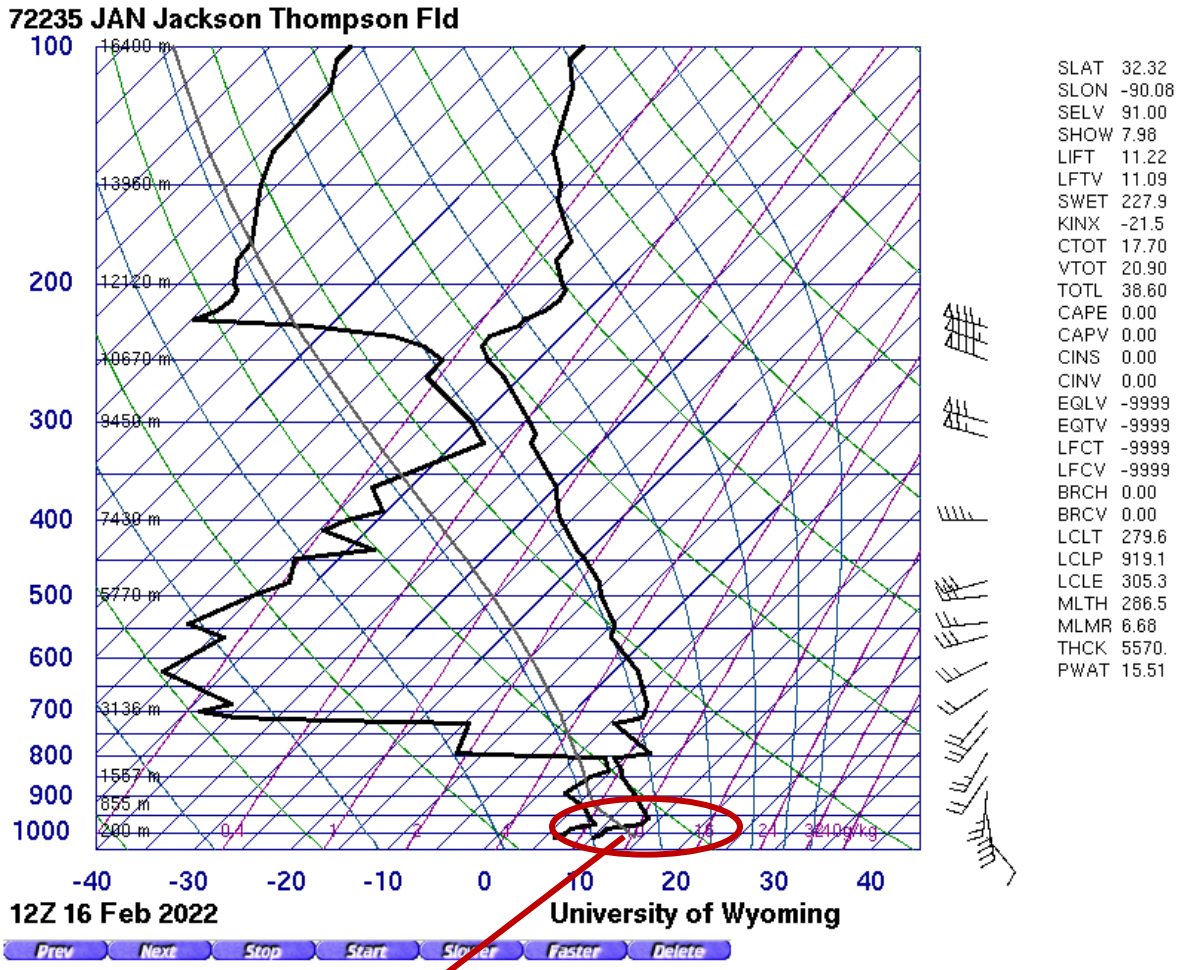


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values in 2022 compared to the average of non-exceptional years.

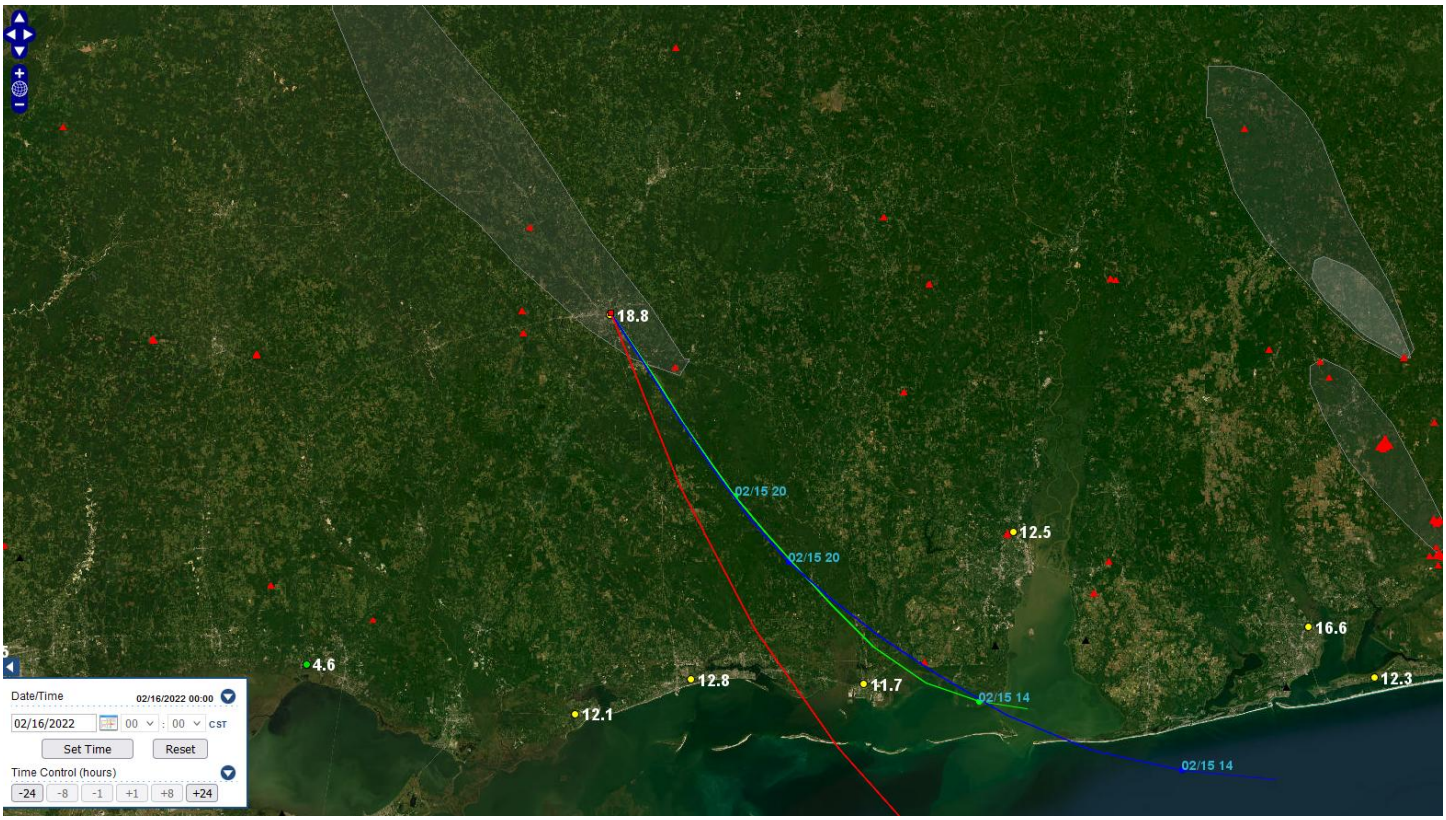
February 16th: During the day on February 16th, surface high pressure shifted eastward, allowing a more southeasterly flow across Mississippi. A prescribed fire occurred just southeast of the Hattiesburg PM monitor, placing the monitor directly in the path of the smoke plume, which moved from southeast to northwest with the southeasterly wind flow. The combination of the Hattiesburg monitor being in the direct path of the smoke plume and a strong nocturnal/frontal inversion during the early morning hours led to anomalously high PM2.5 values, particularly in the morning, with a one-hour maximum of 61.5 µg/m^3.



The 12Z surface analysis (February 16th, 2022, at 6 AM CDT) shows previous day's High Pressure sliding off to the east off the east coast of the U.S, allowing for southeasterly flow to kick in across Mississippi.



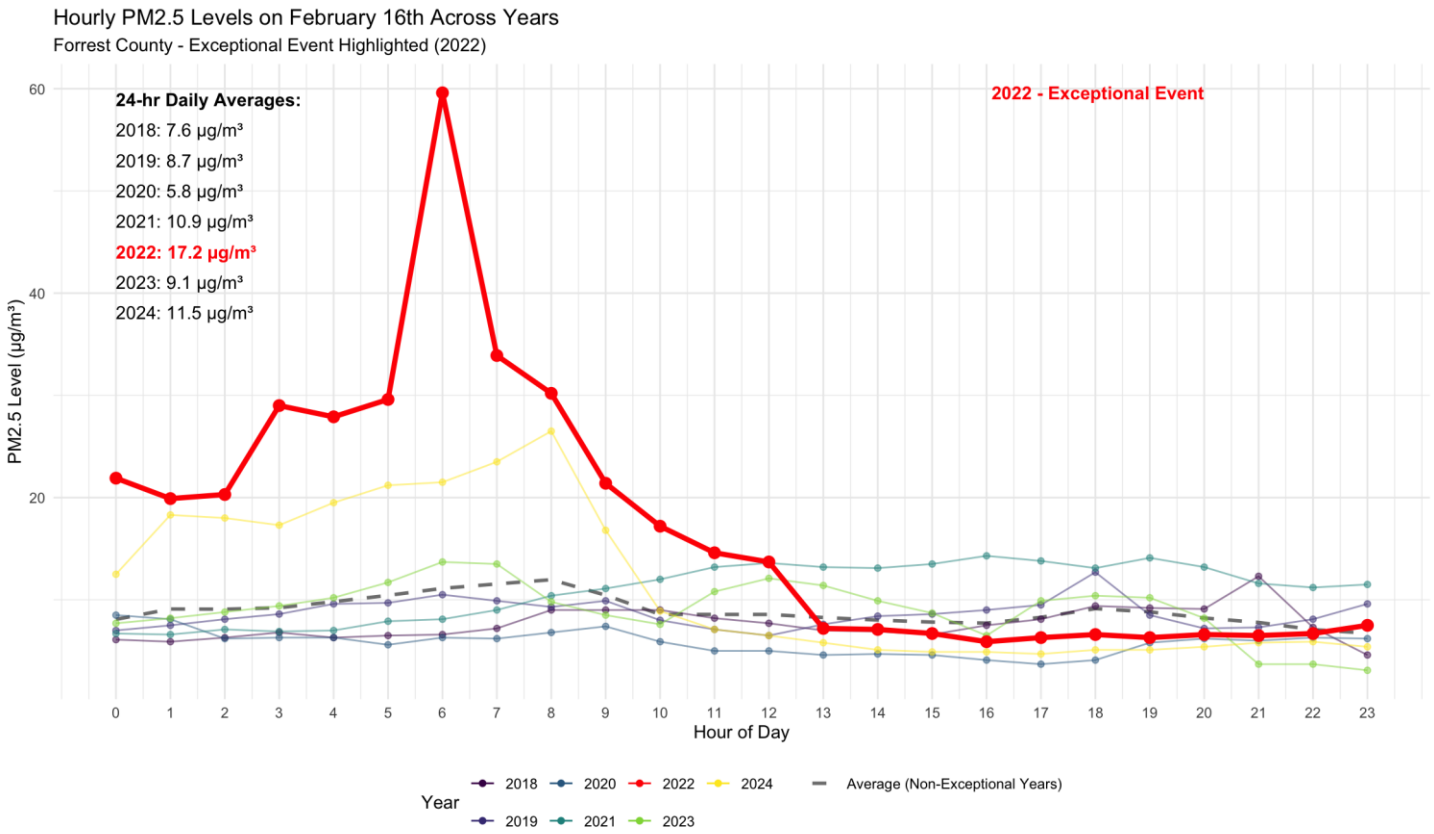
Strong frontal/nocturnal inversion the morning of the 16th, aided in the trapping of PM2.5 values from prescribed fires in the area from the previous day.



The AirNowTech Navigator image taken on, February 16, 2022, shows a prescribed fire occurred just southeast of the Hattiesburg monitor. The smoke plume, as shown was carried by southeasterly wind flow, as indicated by the HYSPLIT back trajectory (at 10m, 50m, and 1500m levels), and blew directly toward the Hattiesburg monitor.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	02/16/22	23.8	21.8	22.2	30.9	29.8	31.5	61.5	35.8	32.1	23.3	19.1	16.5	15.6	8.9	8	7.6	7.2	7.8	8.1	7.7	8.1	8	8.2	9.2	18.86	61.5

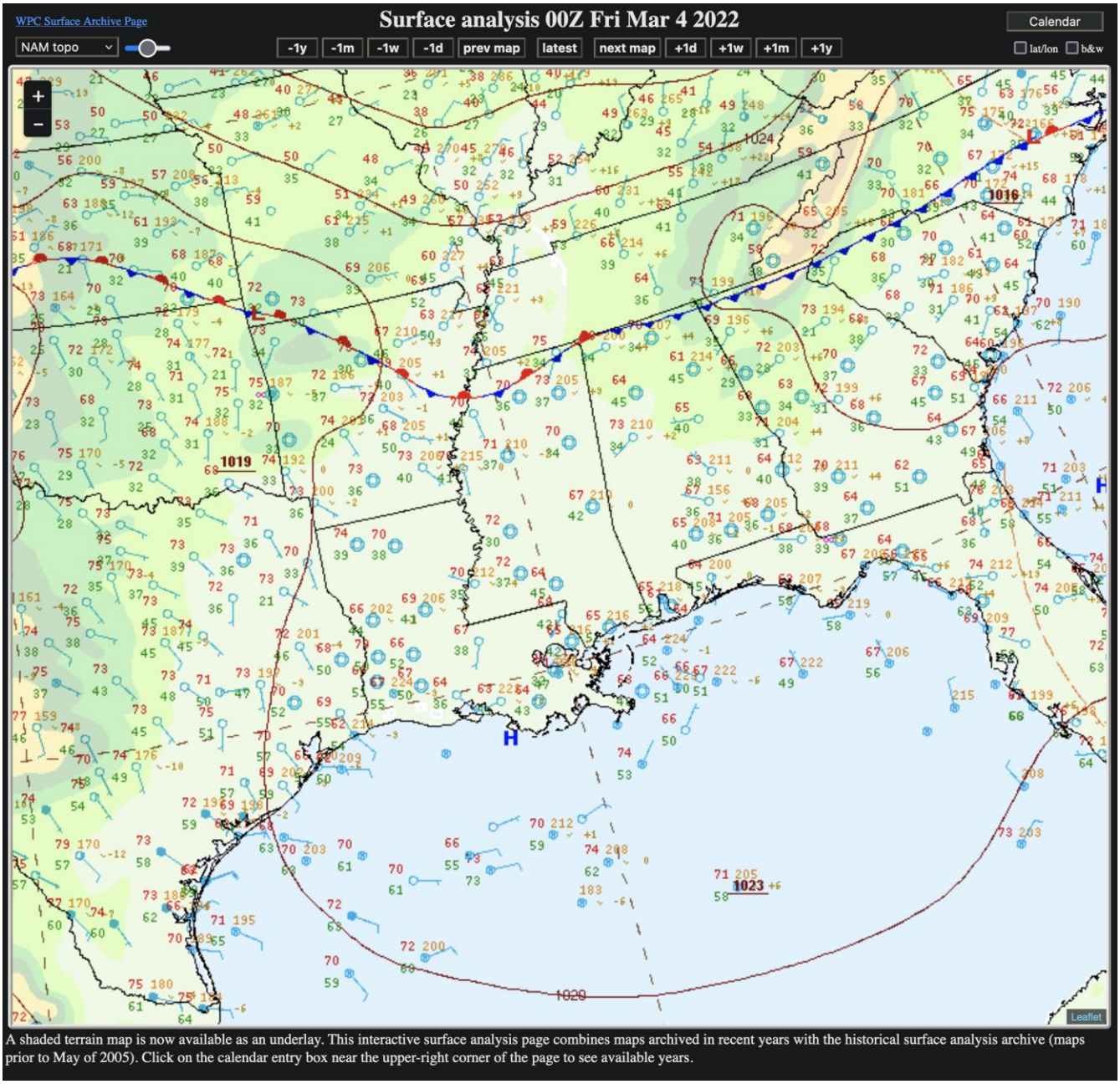
The Hattiesburg monitor's hourly PM2.5 values on February 16th began in the twenties and thirties in the pre-dawn hours in response to a low-level nocturnal inversion, trapping the previous day's smoke from prescribed fires in and around the Hattiesburg monitor. In addition, PM2.5 values increased just after sunrise into the morning hours thanks to a smoke plume that was blowing directly toward the Hattiesburg monitor, with a one-hour PM2.5 maximum value of 61.5 µg/m^3. As the wind shifted, values dropped after the noon hour into the single digits, but since PM2.5 values were so elevated in the morning hours due to smoke from prescribed fires, the 24-hour PM2.5 average ended up being 18.86 µg/m^3.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values in 2022 compared to the average of non-exceptional years. The hourly time series shows the anomalous hourly spike in the morning hours due to a smoke plume from a prescribed fire blowing directly toward the Hattiesburg PM2.5 monitor.

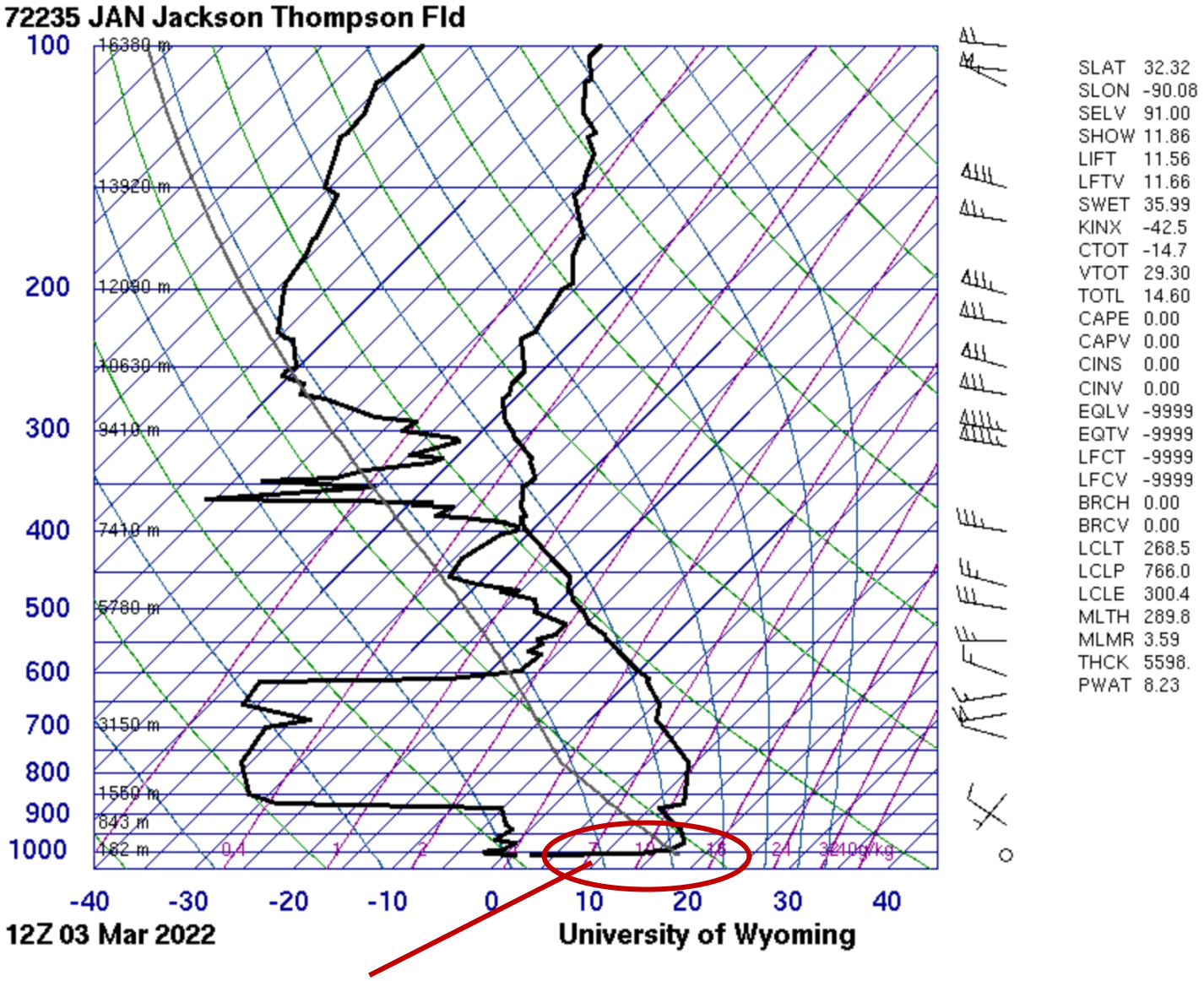
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
March 3-5, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	22.5, 35.5, 27.7	1, 2	Prescribed Fire an Exceptional Event Demonstration: March 3-5 2022

Synopsis: Sprawling surface High pressure has been sitting over the southeastern United States over past few days leading up to prescribed fire exceptional event on March 3rd through the 5th, 2022. There were numerous fires ongoing on the day(s) of the event and prior. Strong surface high pressure led to stagnant/low wind conditions that allowed the culmination of smoke near the surface from these fires over the midsouth and the southeastern United States.

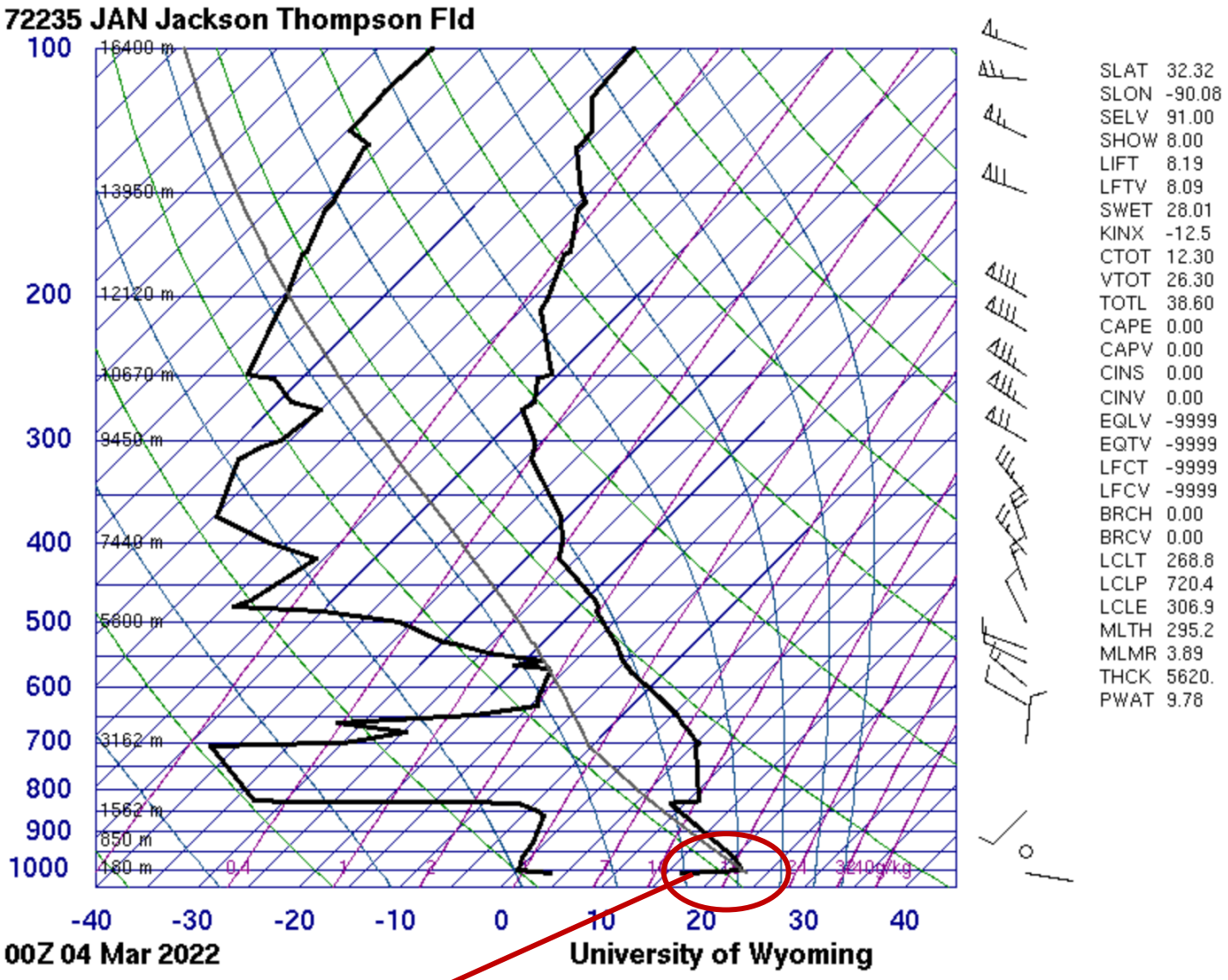


A shaded terrain map is now available as an underlay. This interactive surface analysis page combines maps archived in recent years with the historical surface analysis archive (maps prior to May of 2005). Click on the calendar entry box near the upper-right corner of the page to see available years.

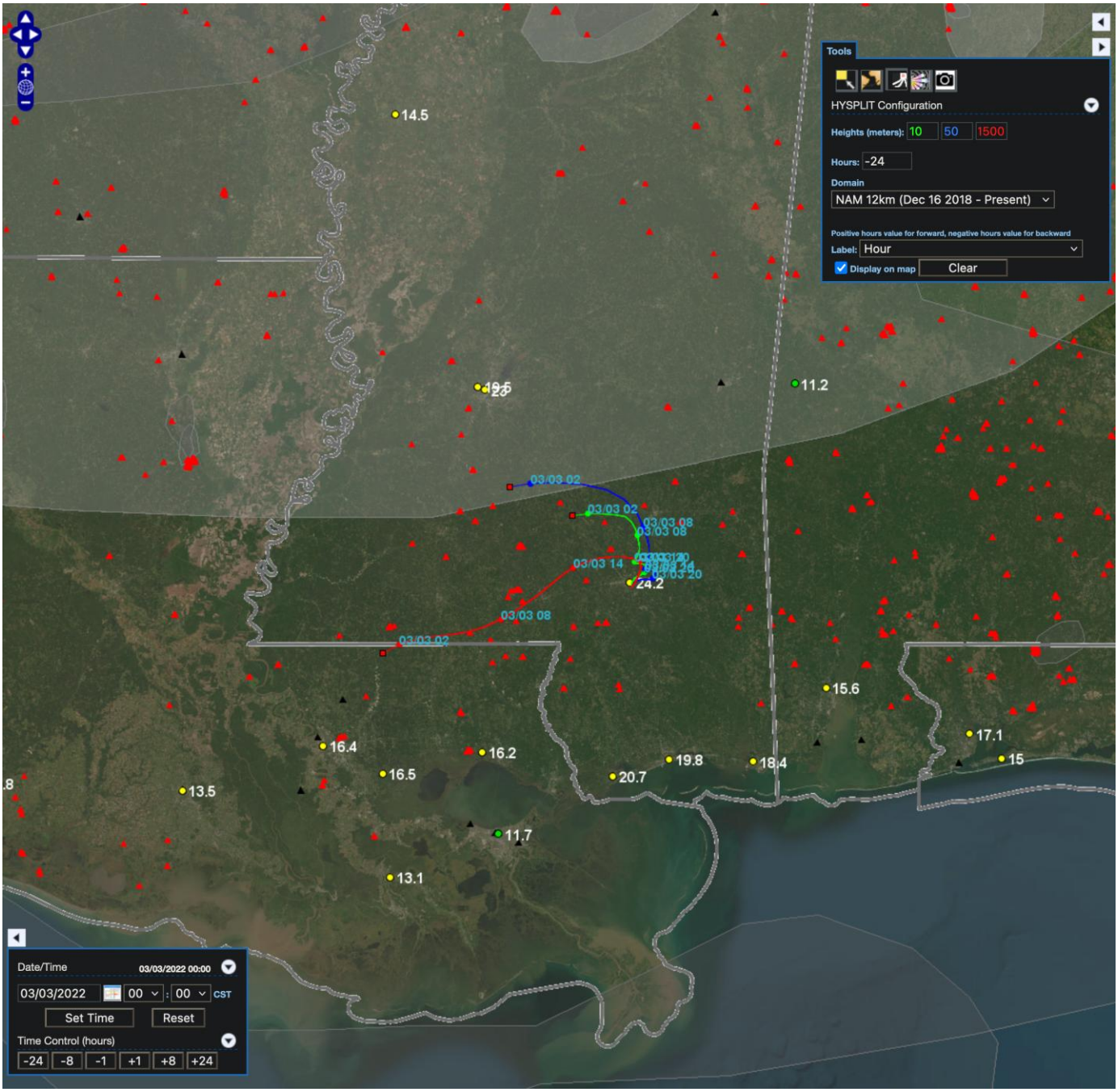
The 00Z surface analysis (March 3rd, 2022, at 6 AM CDT) shows High Pressure centered off the coast of south-central Louisiana, conducive for stagnant conditions, allowing for low level nocturnal inversion formation, helping to trap prescribed fire smoke close to the surface, elevating PM2.5 values, especially during the overnight hours.



Very strong subsidence, low level nocturnal inversion depicted on the Jackson sounding the morning of March the 3rd, 2022 allowed smoke from the fires to collect and become trapped near the surface, resulting in high PM2.5 values.



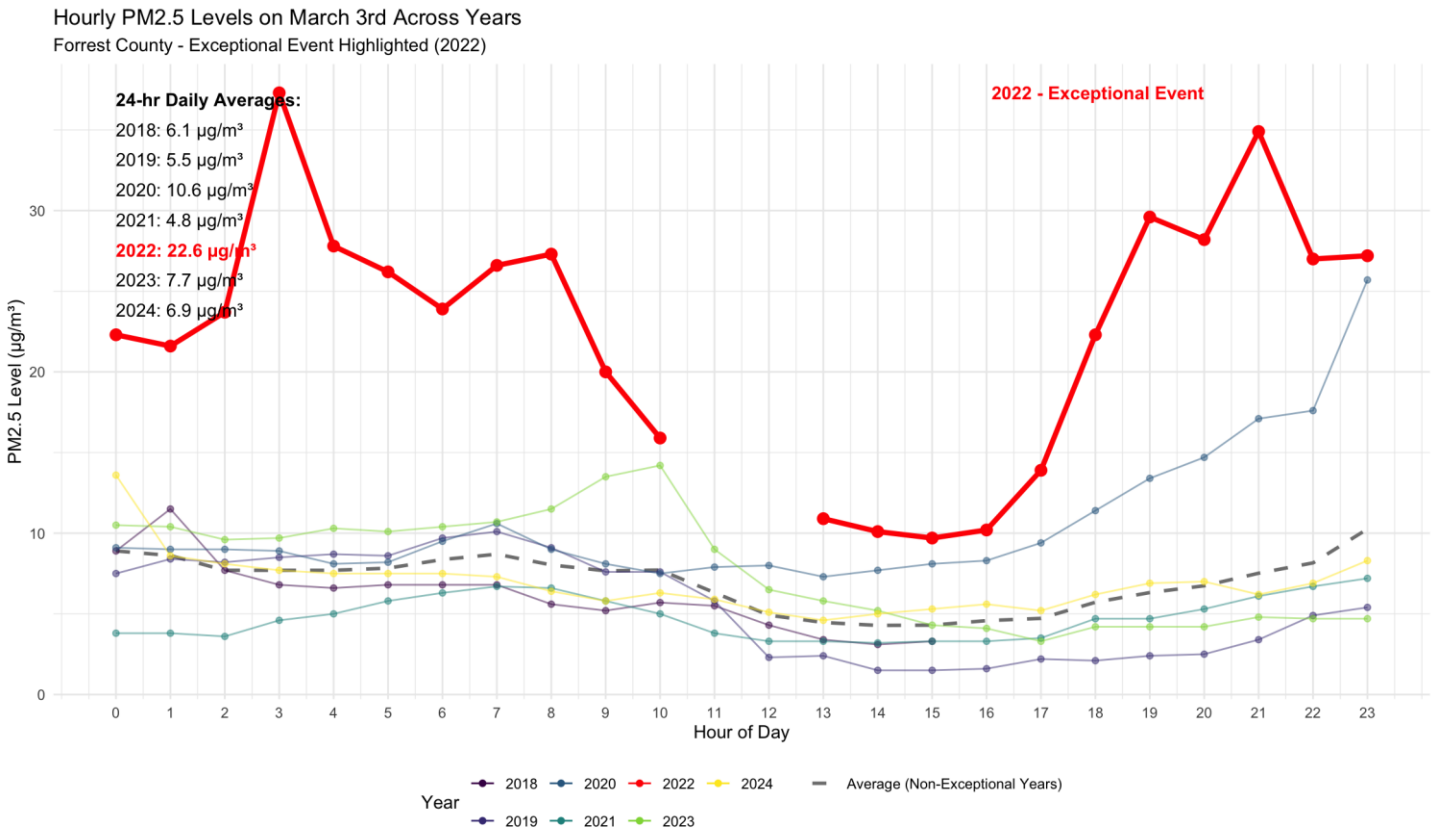
Evening of March the 3rd, when sounding was launched, shows low level nocturnal inversion setting up once again in late evening hours, trapping smoke near the surface from ongoing prescribed fires in the southeast.



Notice the back trajectory at the Hattiesburg monitor is a 24-hour trajectory, and how in the duration of the -24 hours, the parcel has barley traveled at all three levels (10m, 50m, 1500m), indicating very stagnant conditions. This in culmination with high smoke present resulted in elevated PM2.5 values not only at the Hattiesburg monitor, yet high PM all over the southeast.

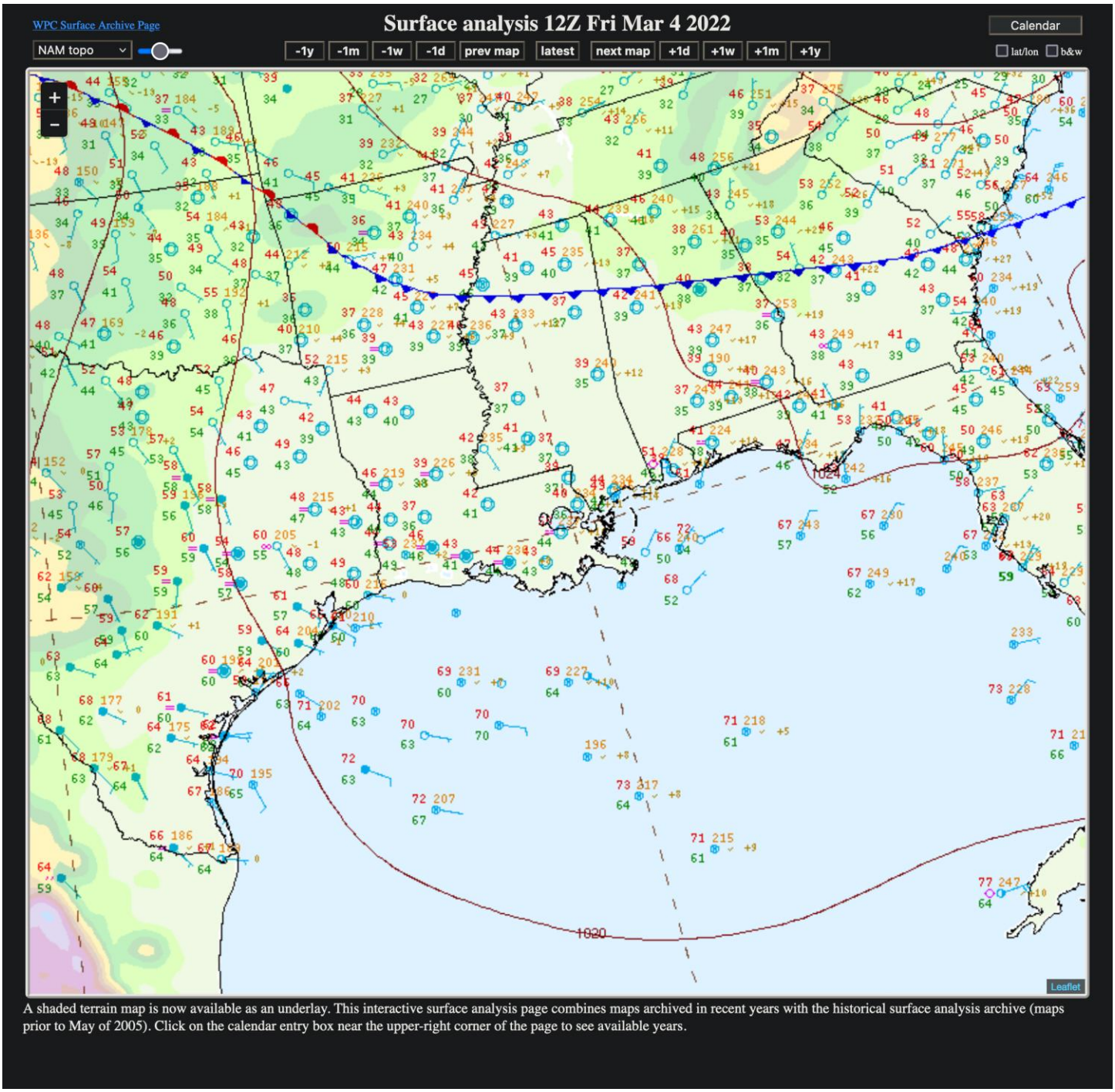
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/03/22	24.2	23.5	25.6	39.2	29.7	28.1	25.8	28.5	29.2	21.9	16.8	2.5	10.3	11.8	11	10.6	11.1	14.8	24.2	31.5	30.1	36.8	28.9	29.1	24.2	39.2

PM2.5 values from the Hattiesburg site depicted above show high concentrations on March 3rd, especially in the early morning hours, with values diminishing during the day due to increasing mixing heights. In the evening, as mixing heights diminished and a low-level nocturnal inversion developed, PM2.5 values began to increase again, resulting in a daily PM2.5 average of 24.2 µg/m^3 at Hattiesburg.

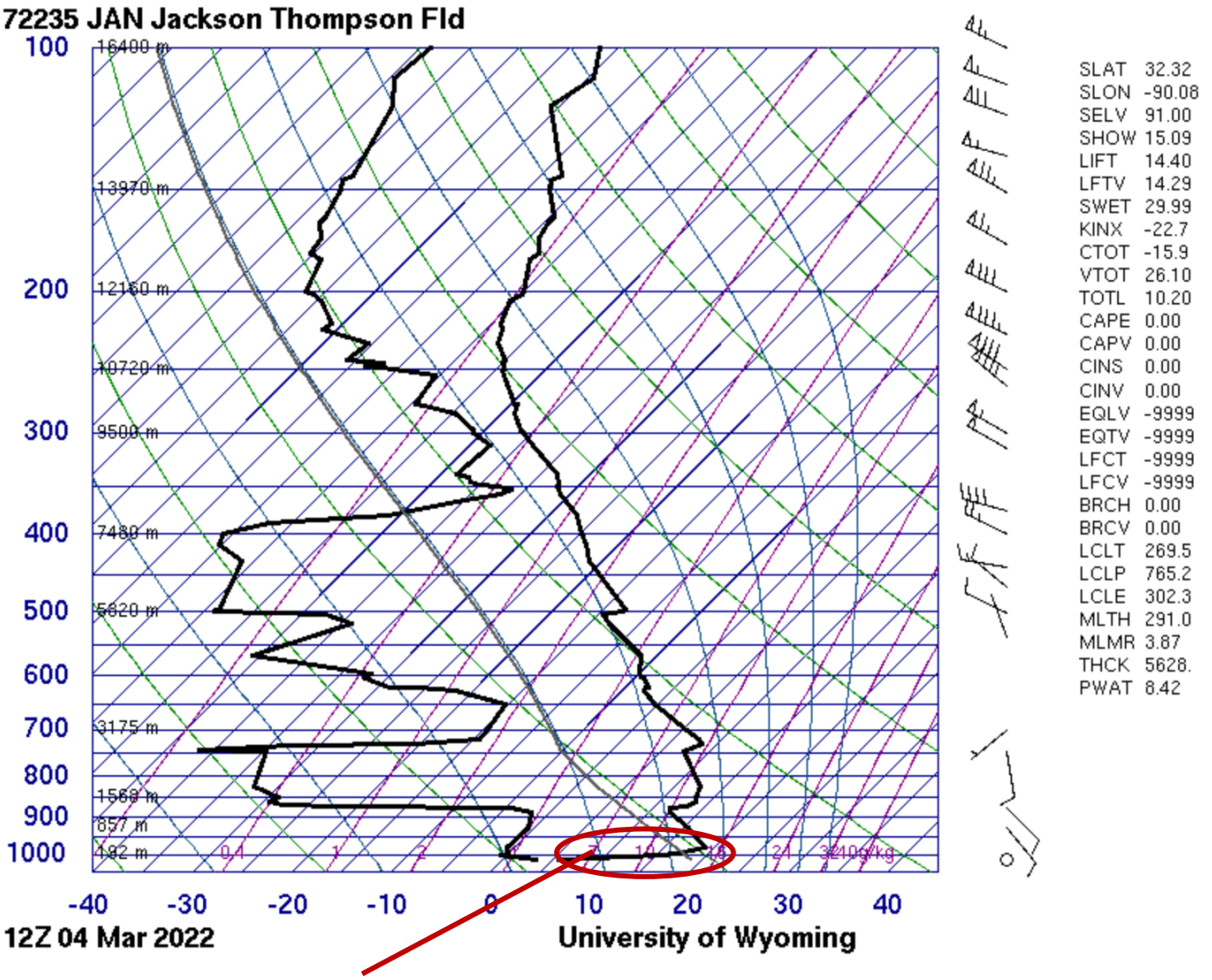


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values in 2022 compared to the average of non-exceptional years.

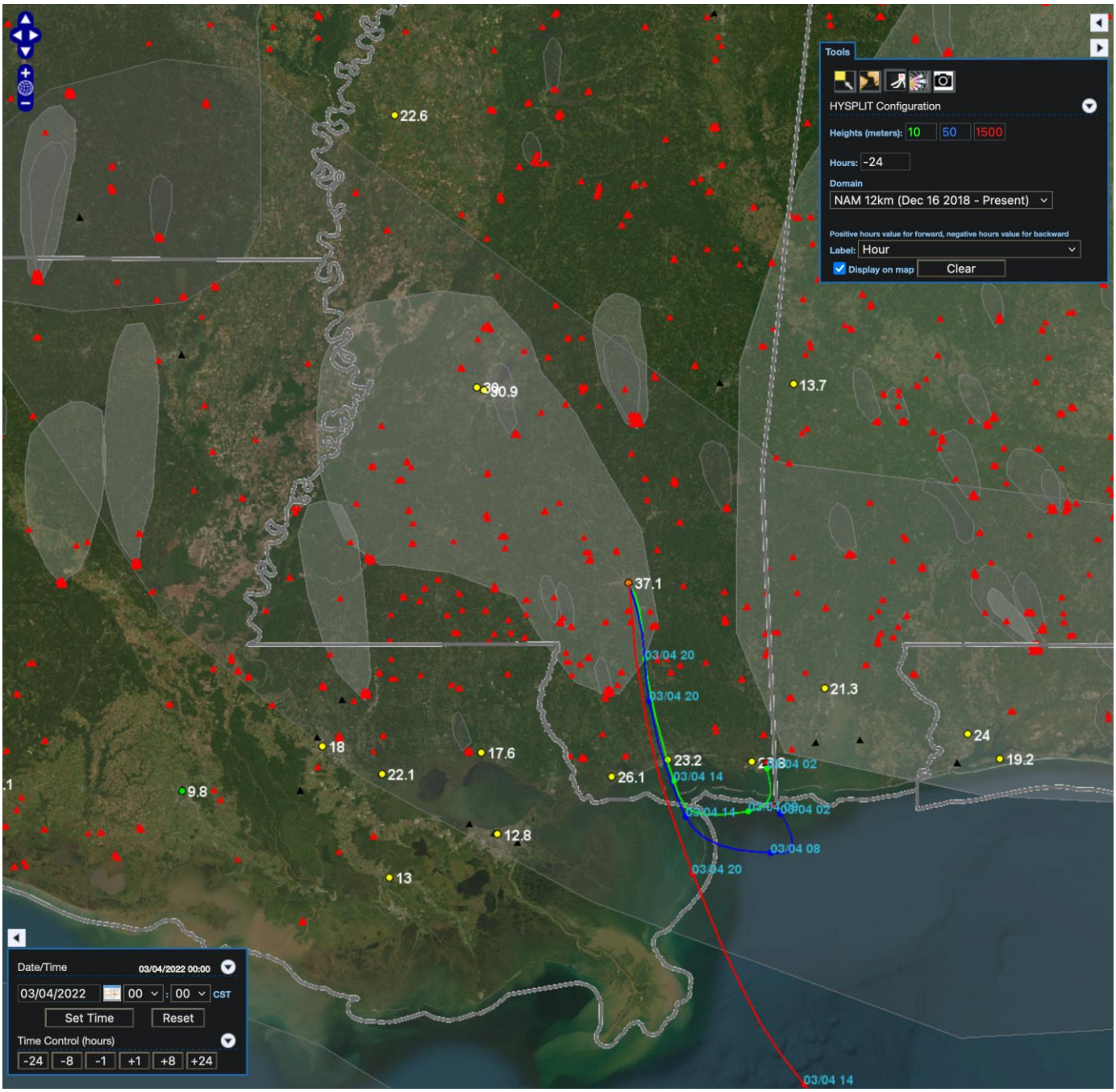
March 4th: Continuation of strong stagnant conditions especially during the early to mid-morning hours with southeasterly flow developing during the afternoon hours. The cumulative collection of smoke from previous days under consistent stagnant conditions with the continuation of prescribed fires, PM2.5 values were very high on this day with hourly values maxing out at 94.2 for one hour on Airnowtech. The 24-Hr average for this day was 37.11 ug/m^3.



The 12Z surface analysis (March 4th, 2022, at 6 AM CDT) shows High Pressure continuing to remain in control, conducive for stagnant conditions, allowing for low level nocturnal inversion formation during the overnight/morning hours on the 4th, helping to trap prescribed fire smoke close to the surface, elevating PM2.5 values.

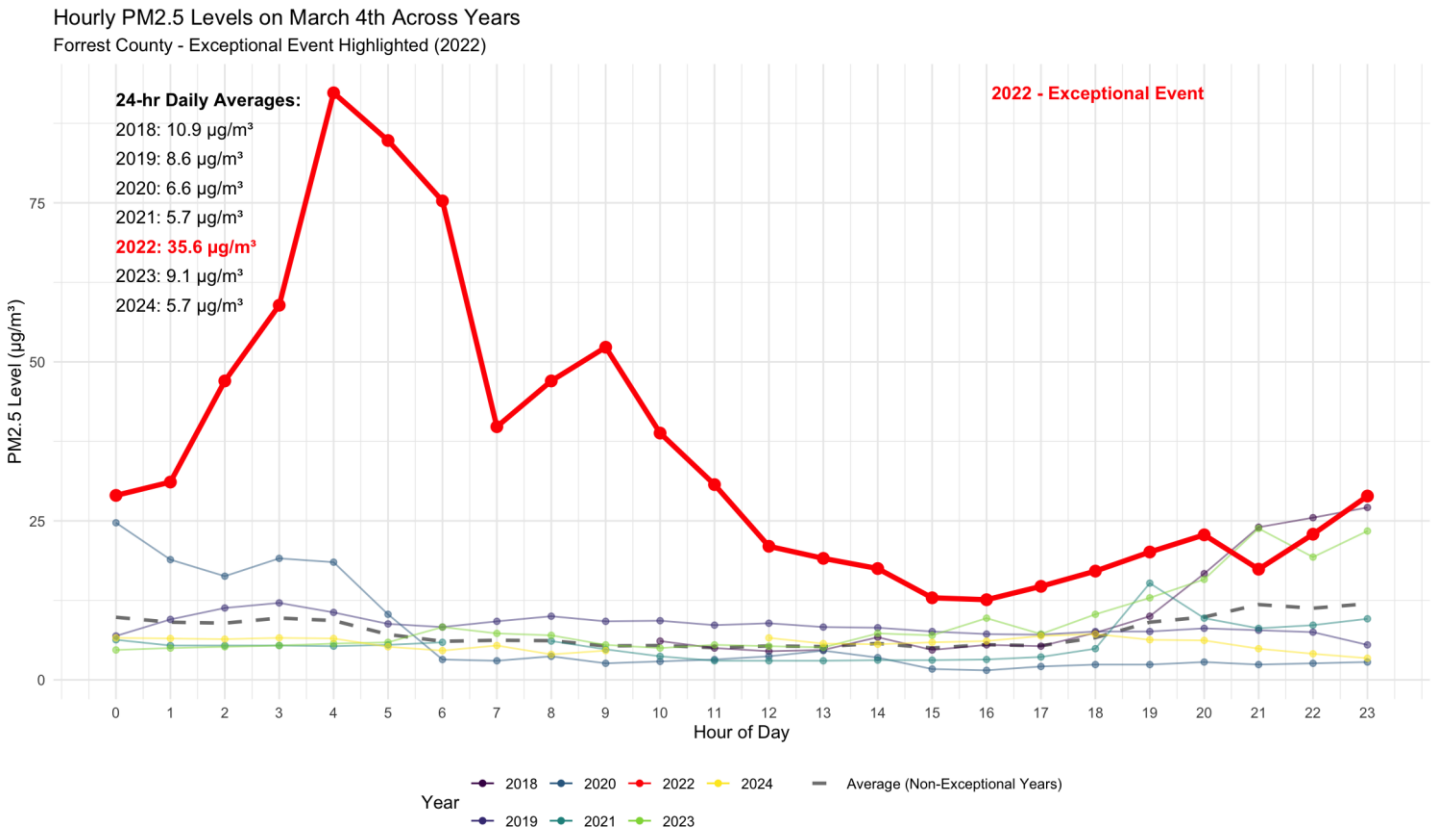


12Z sounding on the 4th from NWS Jackson shows strong nocturnal/subsidence inversion that developed overnight trapping smoke, resulting in high PM25 concentrations.



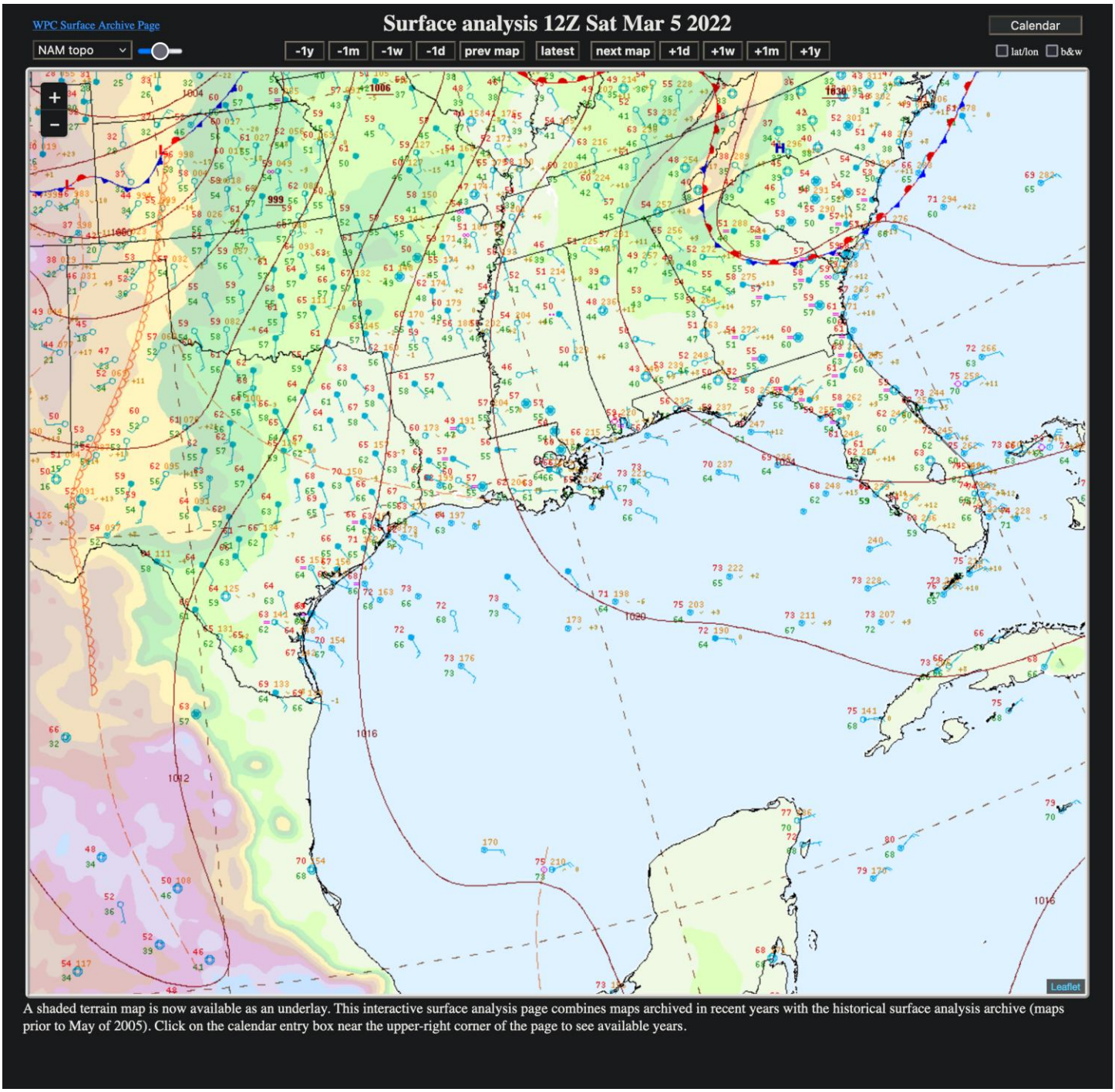
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/04/22	30.9	33	48.9	60.8	94.2	86.7	77.2	41.7	48.9	54.2	39.7	31.6	21.9	20	18.4	13.8	13.5	15.6	18	22	24.7	19.3	24.8	30.8	37.11	94.2

The Hattiesburg monitor recorded elevated PM2.5 values during the early morning hours due to two factors: smoke from previous days' prescribed fires and a strong nocturnal inversion that trapped pollutants near the surface. These conditions pushed readings well above the USG (Unhealthy for Sensitive Groups) range for several hours. As morning progressed into afternoon, daytime heating caused the inversion layer to dissipate and mixing heights to increase, allowing PM2.5 values to drop into the teens. However, values remained elevated throughout the day due to stagnant morning conditions and the development of southeasterly winds in the afternoon. These winds carried smoke from active fires south and southeast of the Hattiesburg monitor directly toward the monitoring station, as shown by the back trajectory in the figure above. During the overnight hours of the 4th going into the 5th, a new low-level inversion developed, once again trapping smoke near the surface. This caused PM2.5 values to rise back into the twenties and thirties.

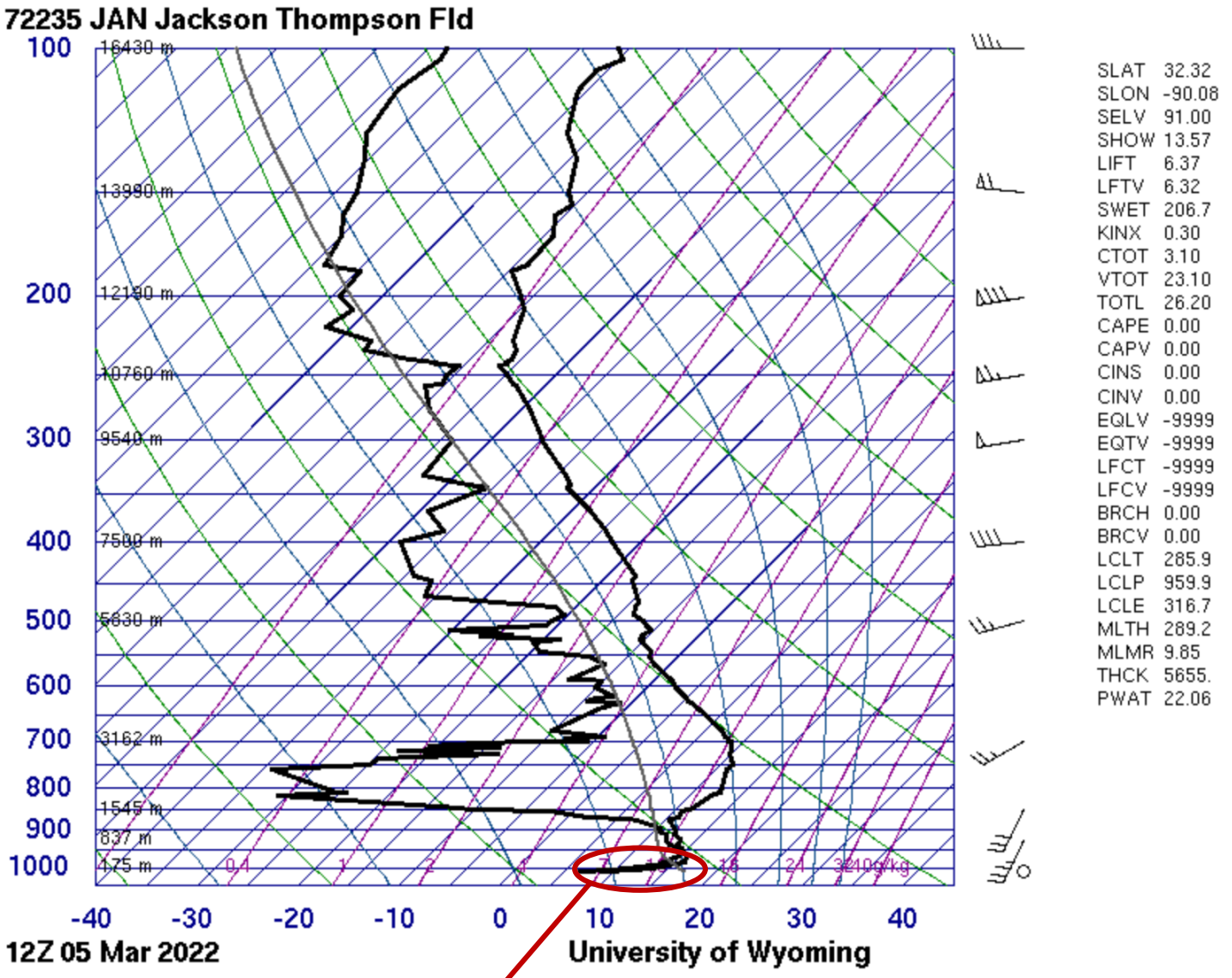


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values in 2022 compared to the average of non-exceptional years.

March 5th: PM2.5 values remained high at the Hattiesburg monitor, especially during the morning hours with a one-hour max of 86.7ug/m^3 resulting from stagnant conditions at the surface in combination with a very shallow frontal inversion that set up during the overnight hours, trapping smoke from previous days fires near the surface.

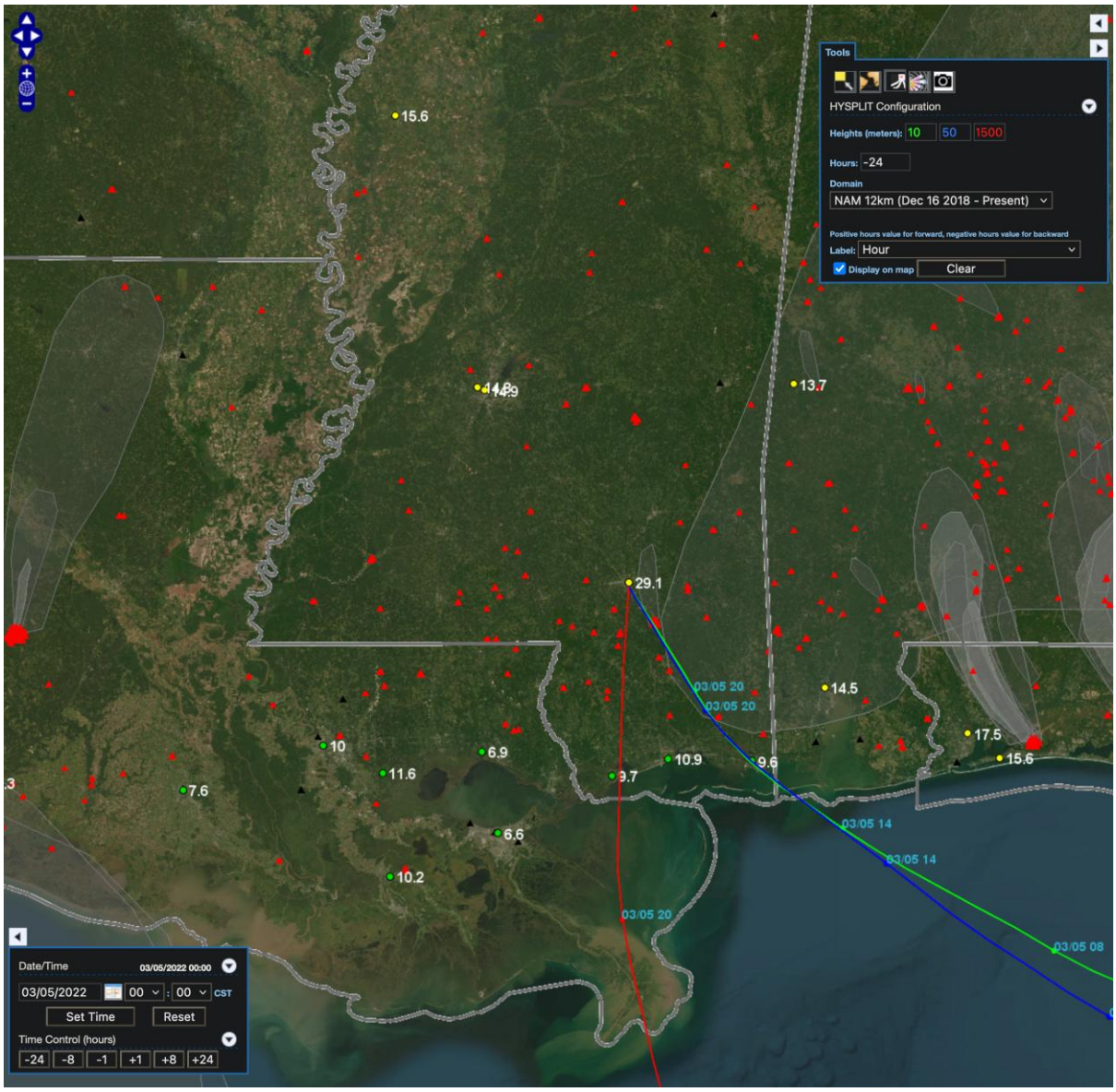


The 12Z surface analysis (March 5th, 2022, at 6 AM CDT) shows stagnant conditions were located in and around the Hattiesburg area, allowing for a healthy nocturnal inversion to set up overnight, trapping smoke near the surface, elevating PM2.5 values at the Hattiesburg monitor.



In combination with calm winds, a shallow frontal inversion set up as seen from KJAN sounding the morning of March the 5th, aiding in trapping of PM2.5 particles.

During the afternoon hours of March 5th, southeasterly winds picked up on the back side of a high-pressure system located off the southeastern seaboard of the United States. At this time, there were prescribed fires ongoing to the south and southeast of the Hattiesburg monitor, with the smoke blowing northwest toward the monitor. Throughout the day, the combination of increasing southeasterly winds and rising mixing heights allowed the smoke to disperse, resulting in PM2.5 values dropping into the single digits. As evening approached and darkness fell, the mixing heights became shallow, and while southeasterly winds relaxed, they continued to blow the remaining smoke from the fires toward the Hattiesburg monitor. PM2.5 values rose back into the high teens and twenties around midnight, with the daily average for March 5th being 27.7 $\mu g/m^3$.

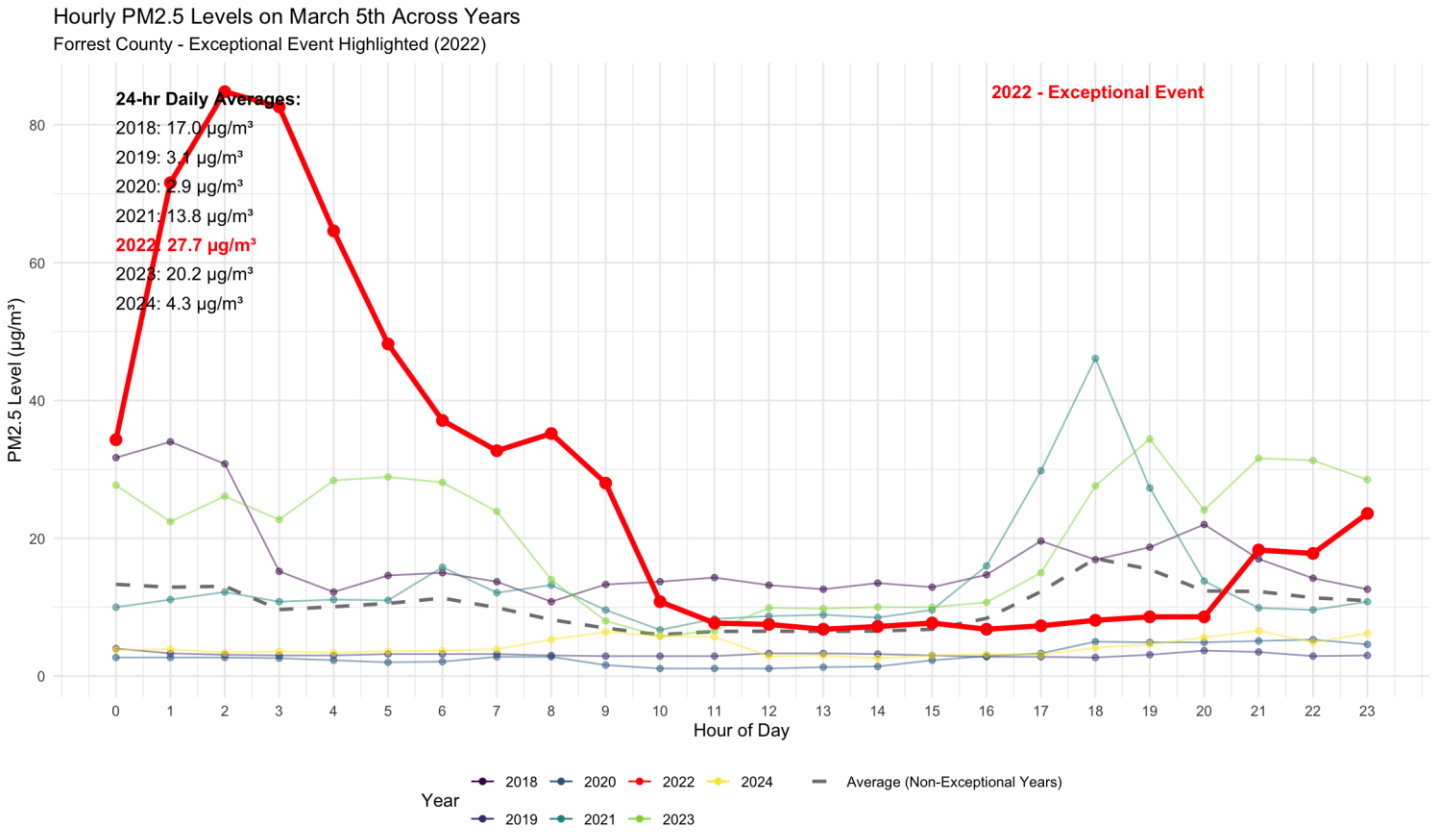


24-Hour Back trajectory showing southeasterly flow, with the parcels at the lowest levels both 10m and 50m blowing directly over the prescribed fires, picking up smoke and moving the smoke directly towards the Hattiesburg monitor.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/05/22	36.2	73.5	86.7	84.5	66.5	50.1	39	34.6	37.1	29.9	11.7	8.6	8.4	7.7	8.1	8.6	7.7	8.2	9	9.5	9.5	19.2	19.7	25.5	29.15	86.7

The Hattiesburg monitor recorded elevated PM2.5 values during the early morning hours due to two factors: smoke from previous days' prescribed fires blowing towards the Hattiesburg monitor (shown by the back trajectory in the figure above) and a strong nocturnal inversion that trapped pollutants near the surface. These conditions pushed readings well above the USG (Unhealthy for Sensitive Groups) range for several hours.

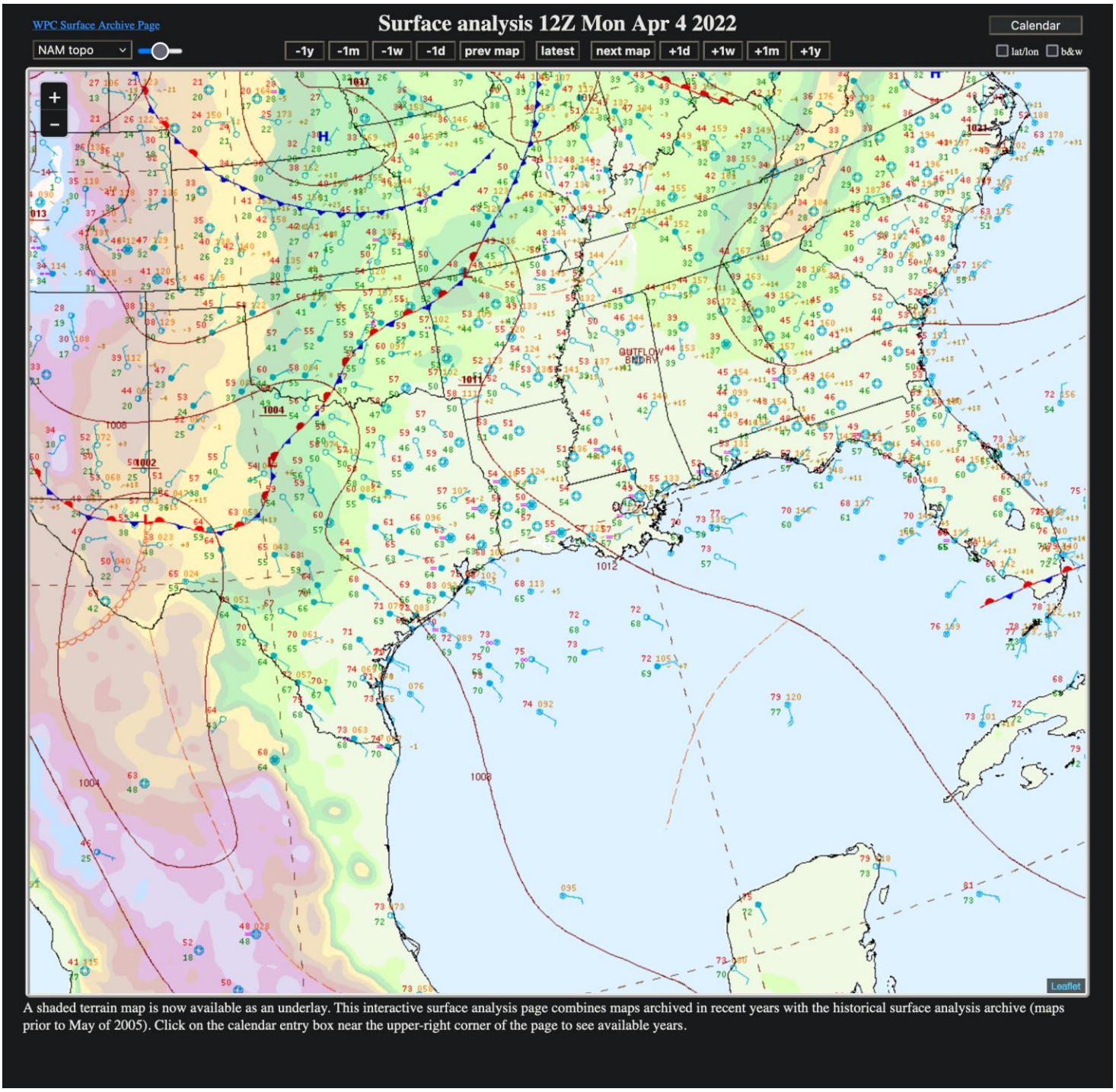
As morning progressed into afternoon, daytime heating caused the inversion layer to dissipate and mixing heights to increase, allowing PM2.5 values to drop into single digits. PM2.5 values began to increase once again on the night of the 5th going into the 6th, as winds relaxed, allowing a shallow nocturnal inversion to set up over the area. This caused PM2.5 values to climb back into the teens and twenties, contributing to a daily 24-hour PM2.5 value of 29.15 µg/m^3.



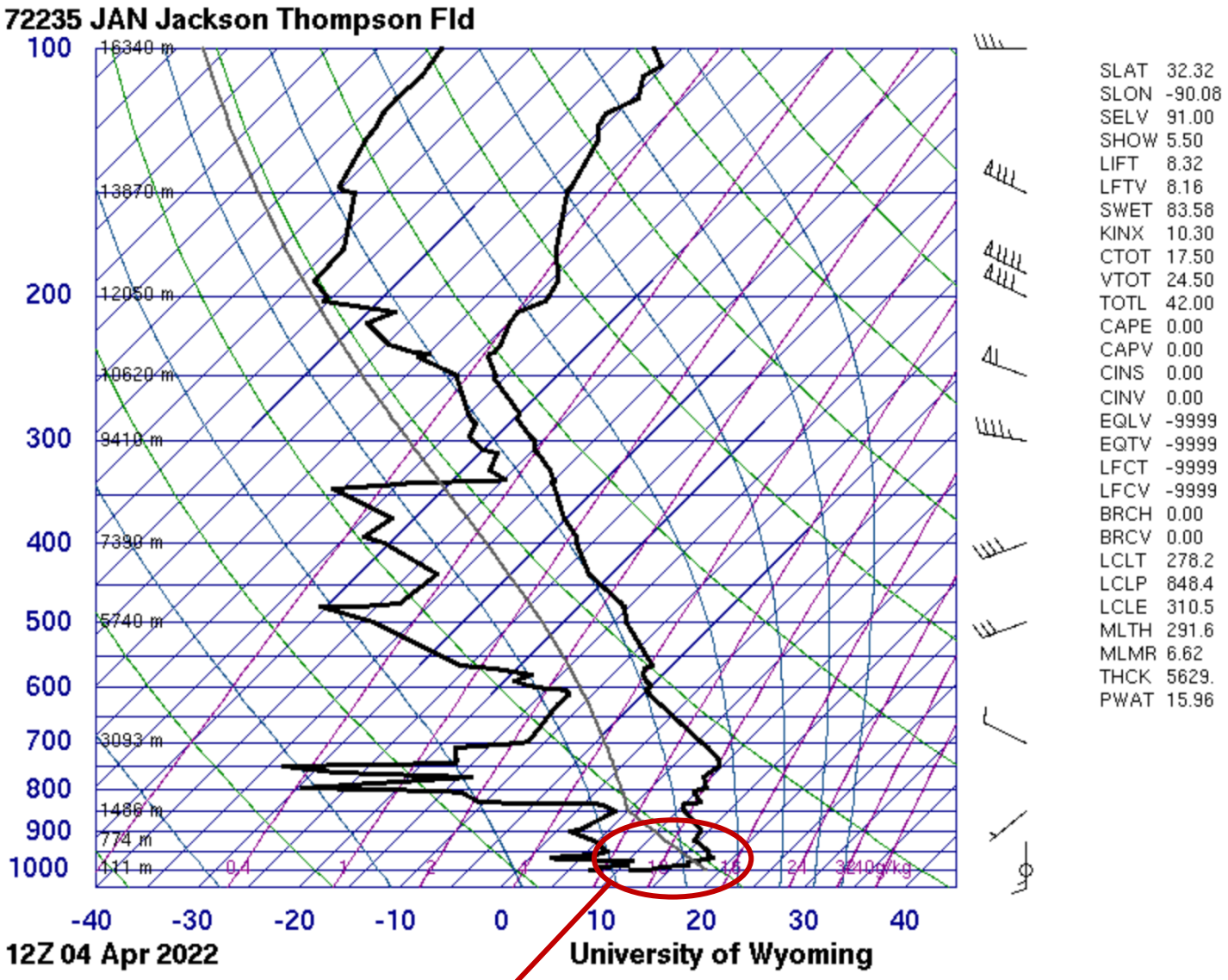
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values specifically in the morning hours in 2022 compared to the average of non-exceptional years.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
April 4, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	16.8	2	Prescribed Fire an Exceptional Event Demonstration: April 4 2022

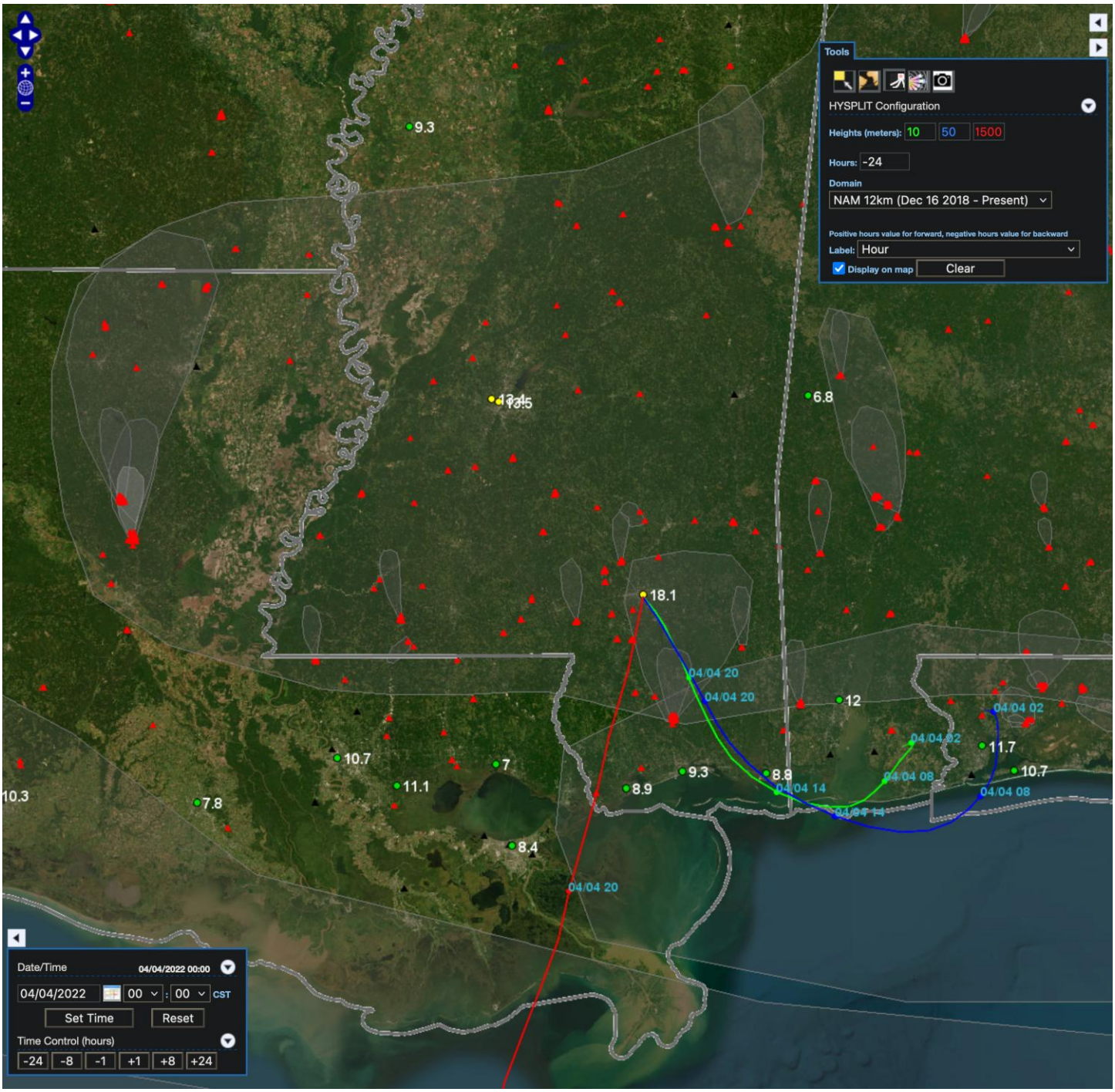
Synopsis: High pressure was in control over the southeast, parked over the Carolinas, leading to calm winds overnight and stagnant conditions. Prescribed fires that had occurred during the previous days caused residual smoke to accumulate in the pre-dawn hours of April 4th, 2022. As the day progressed, mixing heights increased with sunny, warm conditions, allowing for better dispersion of particulate matter (PM), which lowered PM2.5 concentrations. On this day, additional prescribed fires were burning to the south and southeast of the Hattiesburg monitor in the DeSoto National Forest. In the afternoon, smoke from the prescribed fires became embedded in the southeasterly wind flow, carrying the smoke directly toward the Hattiesburg monitor during the evening hours and causing a PM2.5 spike between 7 and 9 PM CDT, with an hourly maximum of 50.4 µg/m^3 occurring at 8 PM CDT. This resulted in a daily PM2.5 average of 16.8 µg/m^3 at the Hattiesburg monitor.



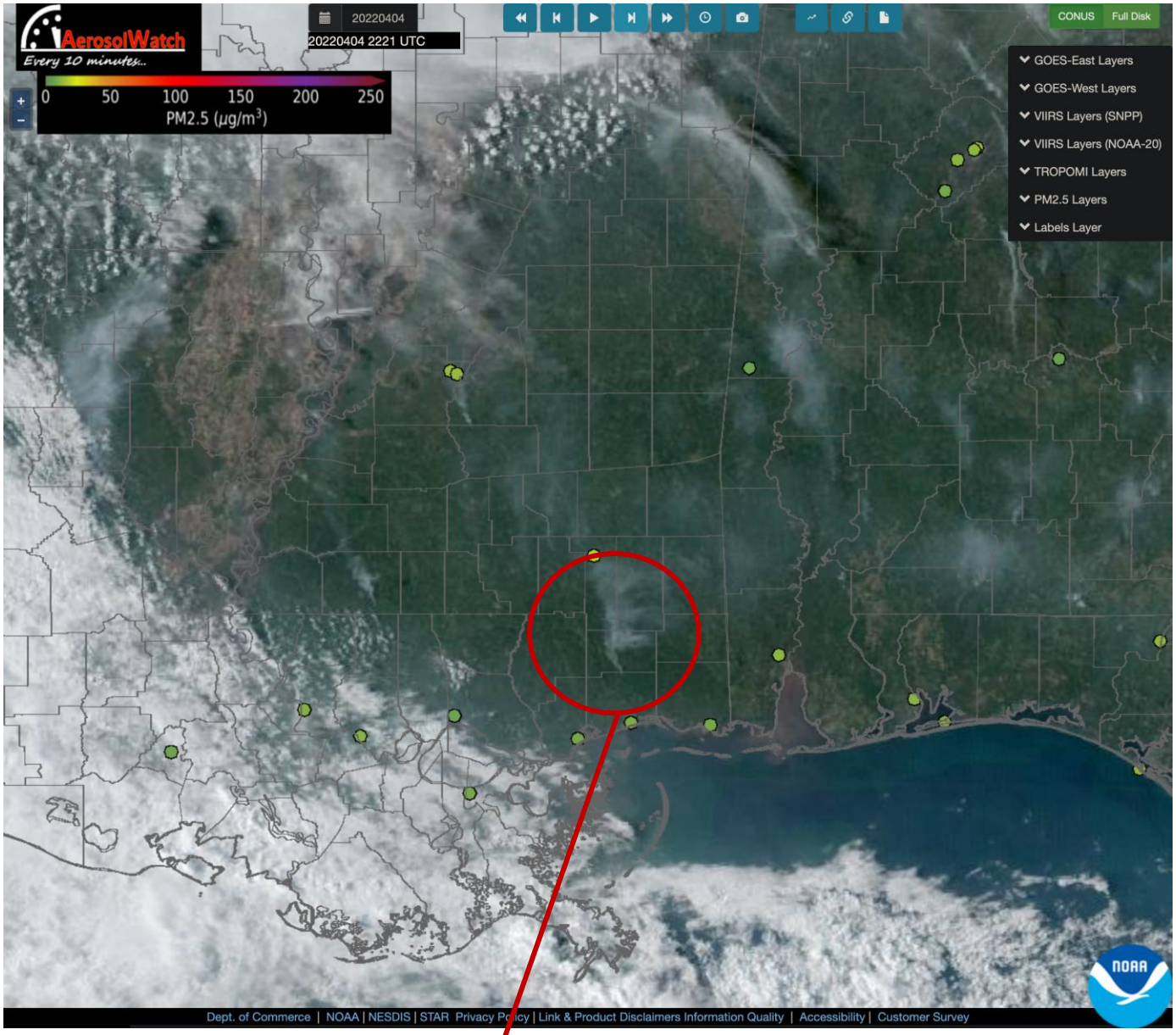
The 12Z surface analysis (April 4th, 2022, at 7 AM CDT) shows High pressure centered over the Mid-Atlantic states with calm winds stagnant conditions across the southeastern United States.



Calm winds and a strong nocturnal inversion the morning of April 4th, 2022, allowed previous days smoke from prescribed fires to collect near the surface, allowing PM2.5 values to climb in the early morning hours of April 4th, 2022.



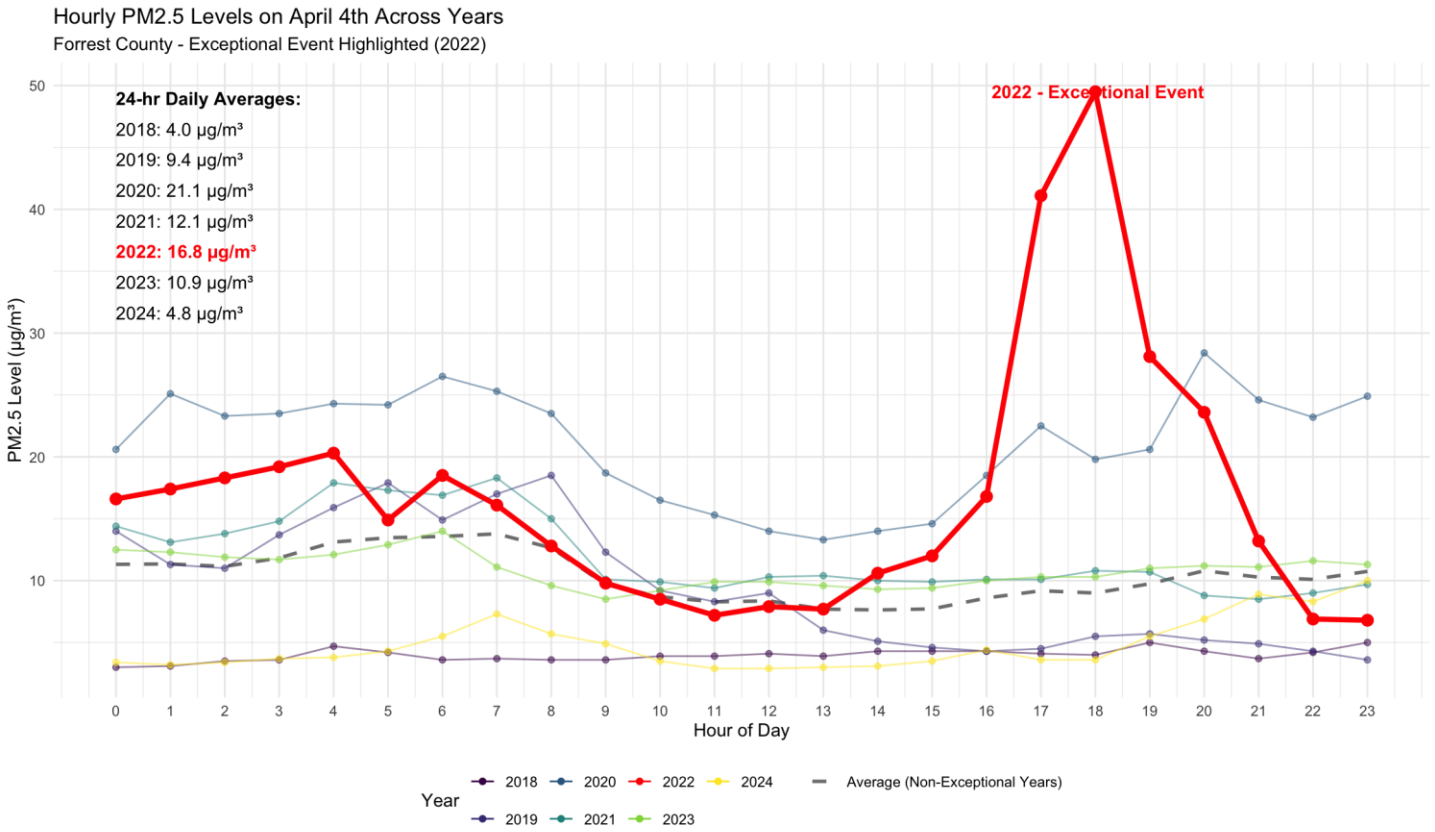
24-Hour Back trajectory shows, prescribed fires burning in the DeSoto National Forest on April the 4th, as the air parcel was moving over the fires from southeast to northwest, carrying the smoke plume from the fires directly towards, the Hattiesburg monitor.



A GOES East True Color image taken on April 4th, 2022, at 2221 UTC shows a smoke plume from a prescribed fire in the DeSoto National Forest. The fire was located south/southeast of the Hattiesburg monitor, and south/southeasterly winds carried the smoke north/northwest toward the monitor, resulting in elevated PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	04/04/22	18.5	19.3	20.2	21.1	22.2	16.8	20.4	18	13.7	10.7	9.4	8.1	8.8	8.6	11.5	12.9	17.7	42	50.4	29	24.5	14.1	8.5	8.4	18.12	50.4

The hourly PM2.5 values at the Hattiesburg monitor on April 4th showed elevated readings in the teens and twenties during morning hours due to smoke from previous days' prescribed fires being trapped underneath a strong nocturnal inversion. As the day progressed, values dropped into single digits due to increasing mixing heights and improved ventilation. However, in the late afternoon and evening, southeasterly winds carried the smoke plume from the prescribed fire over the Hattiesburg monitor, causing a one-hour spike of 50.4 µg/m^3. The culmination of these high hourly values resulted in a 24-hour daily average of 18.12 µg/m^3 at the Hattiesburg monitor.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the significantly higher values in 2022 compared to the average of non-exceptional years. Notice how the late evening spike occurred due to smoke being carried in southeasterly wind flow to the Hattiesburg monitor, from the prescribed fires to the south and southeast.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
May 12, 2022	Wildfire	RT	28-035-0004	Hattiesburg	18.5	2	Wildfire C Exceptional Event Demonstration: May 12, 2022

Synopsis: Two main smoke sources affected a good portion of the central and southern United States during this period: the Hermits Peak, Calf Canyon, and Cerro Pelado wildfires in New Mexico, and ongoing fires in Mexico and Central America. In the days leading up to May 12th, strong high pressure over the southeast led to stable and stagnant conditions. At the upper levels, a trough extended over the western United States with ridging over the Lower and Mid-Mississippi Valley, and an upper-level low positioned off the Mid-Atlantic. These synoptic features helped transport smoke from both the New Mexico wildfires and the Mexico/Central American fires into the middle portion of the country and then east and southward, particularly affecting the Mid and Lower Mississippi Valleys on May 12th.

Thursday, May 12, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1700 May 12, 2022

SMOKE:
New Mexico...
The large wildfires burning in north-central New Mexico, particularly the Hermits Peak and Calf Canyon fires, were observed producing a combined plume of moderate to thick density smoke extending northeastward into western Colorado and over parts of Kansas. The smoke may extend further north into central U.S over parts of Nebraska and South Dakota though cloud cover has precluded analysis over this region in this morning's analysis.

Central and Eastern U.S...
An area of light to moderate density smoke from the Hermits Peak, Calf Canyon, and Cerro Pelado wildfires in New Mexico with contributions from recent burning activity was observed over the Mid-West starting from southern Ontario then continues southwest covering all of Texas and into eastern New Mexico, then east covering most of the eastern U.S., A large area of moderate density smoke stretches from Iowa east all the way into western New York, continuing as far south as the U.S Gulf states and into parts of the northeast Gulf of Mexico. This smoke continues south mixing with "SMOKE/AEROSOL" section.

SMOKE/AEROSOL:
Texas/Mexico/Central America/Gulf of Mexico/Pacific...
A large mass of light to moderate density smoke from heavy seasonal fire activity mixed with aerosols from oil/gas flaring and other industrial sources in Mexico was observed covering most of Mexico, southern Texas, parts of Central America, the Bay of Campeche, most of the Gulf of Mexico, and extending well offshore south of Mexico and Central America into the Pacific. Moderate density smoke covered the western Gulf of Mexico, most of the Bay of Campeche, and eastern and southern Mexico, as well as extending south into the Pacific through the southern coast of Mexico and northwestern Central America.

BLOWING DUST:
New Mexico...
An area of generally light density blowing dust was observed moving southeast/east over northern New Mexico .

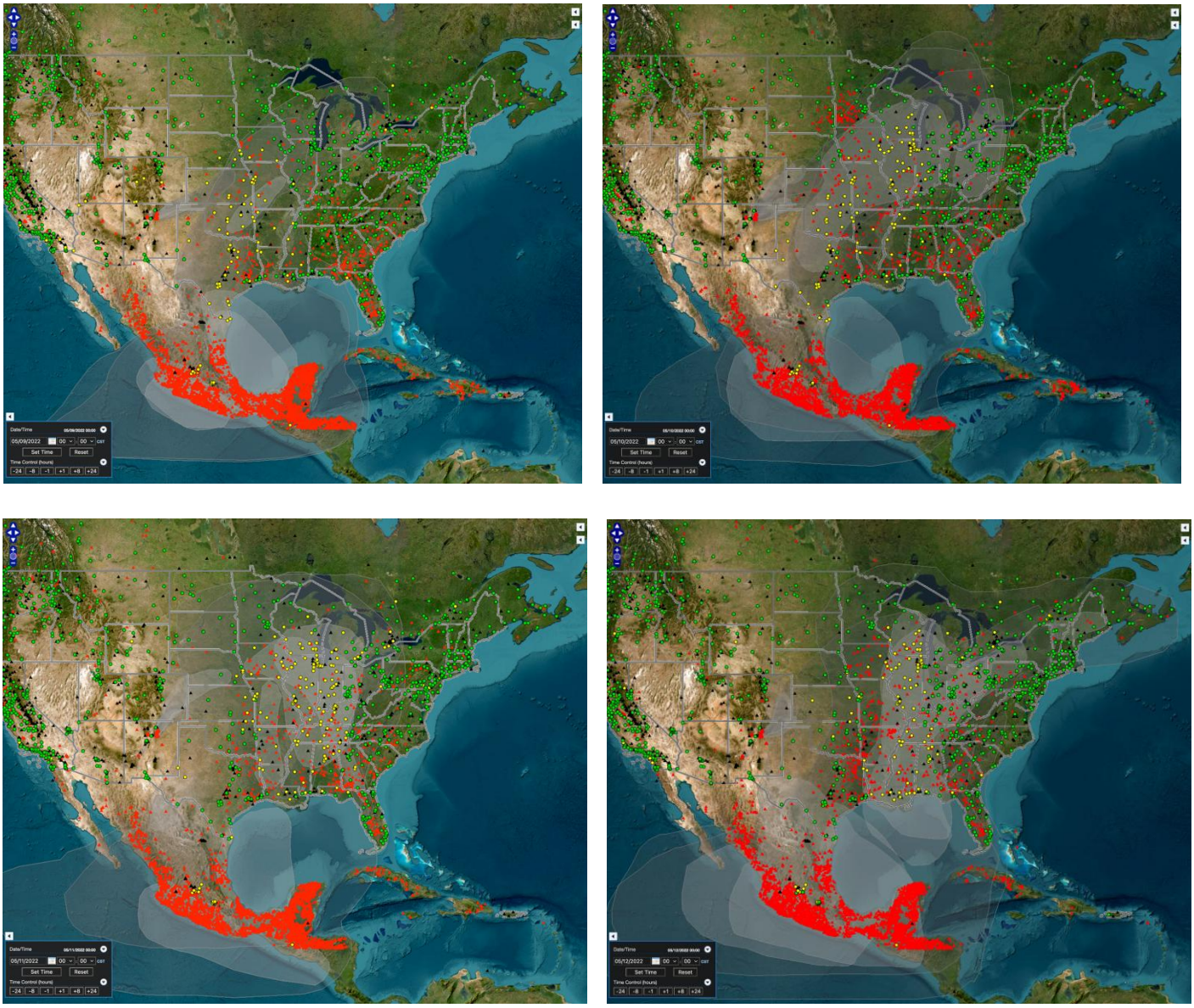
Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

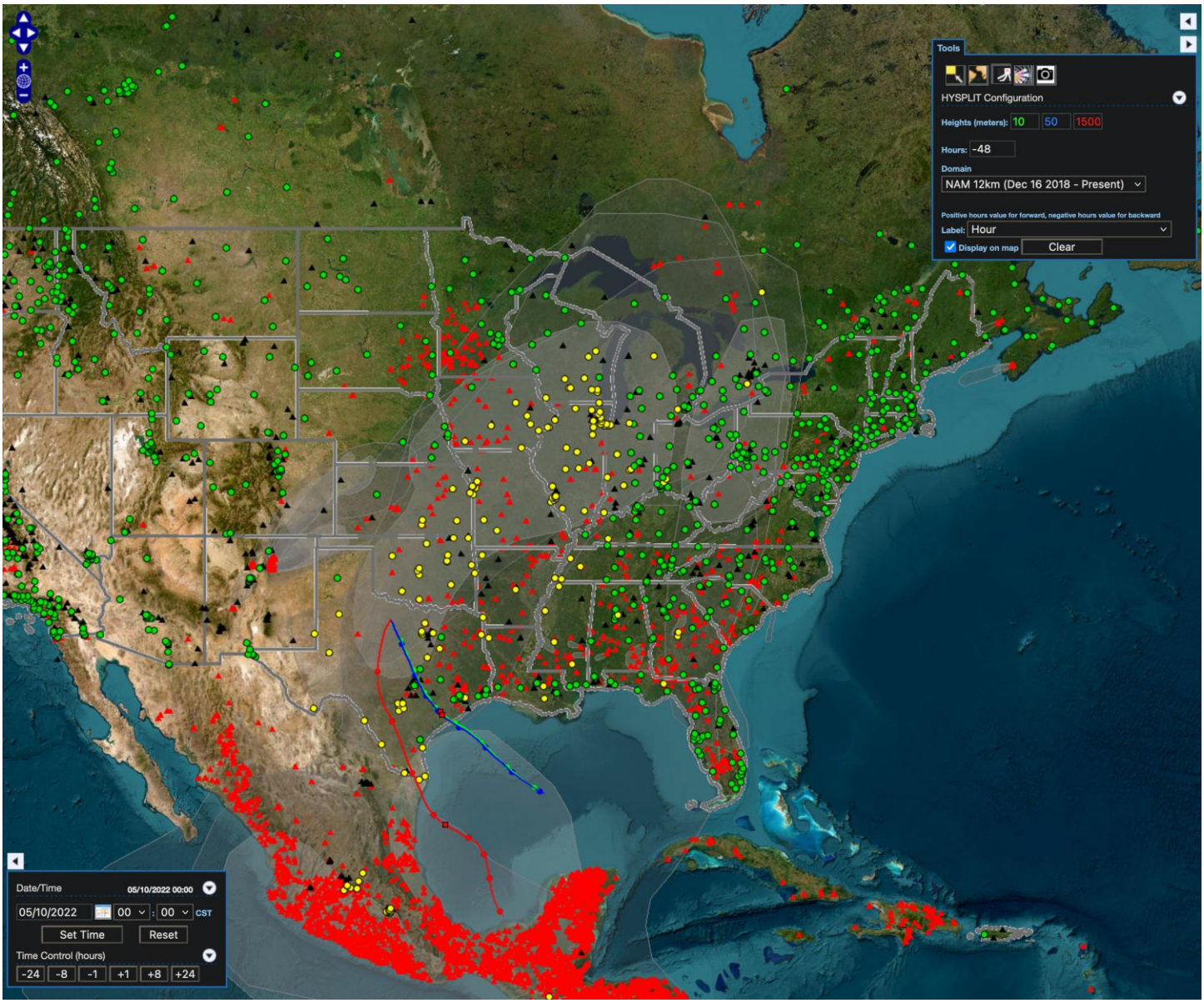
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

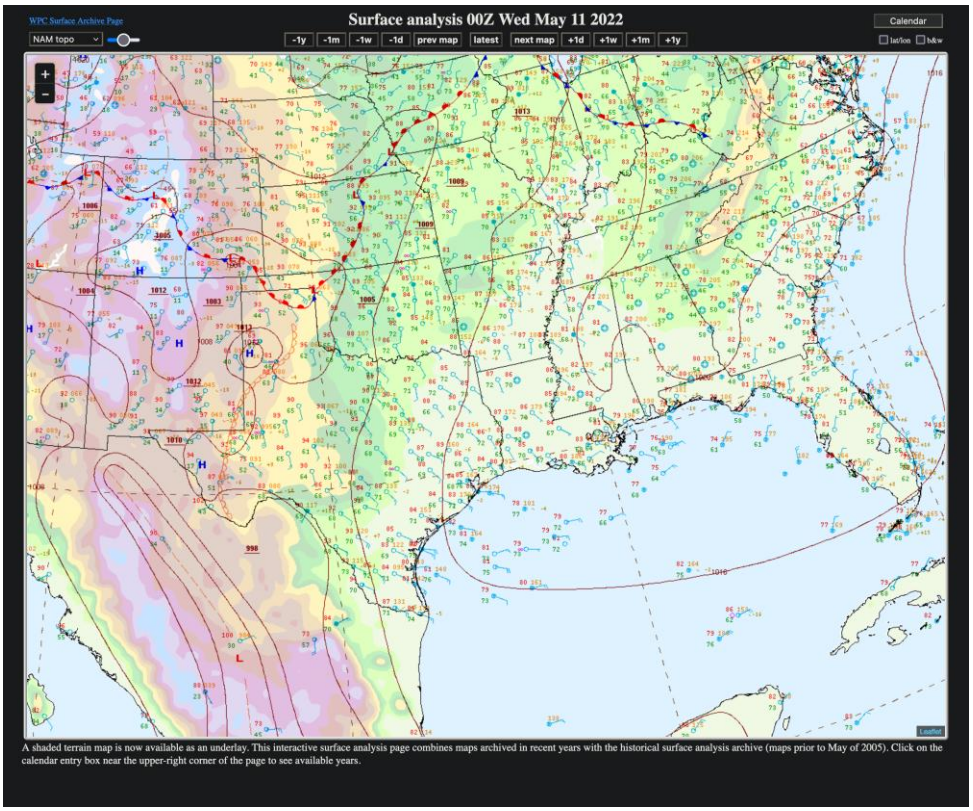
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2022/2022E121617.html) narrative from May 12th, 2022 at 1700Z (May 12th, 2022 at 12:00PM CDT) discusses the smoke scenario in relation to Central and Eastern United States impacts from the Hermits Peak, fire as well as burning activity over the Mid-West, spreading into the east and south to the Gulf states and how this smoke was mixing with fires from Mexico.

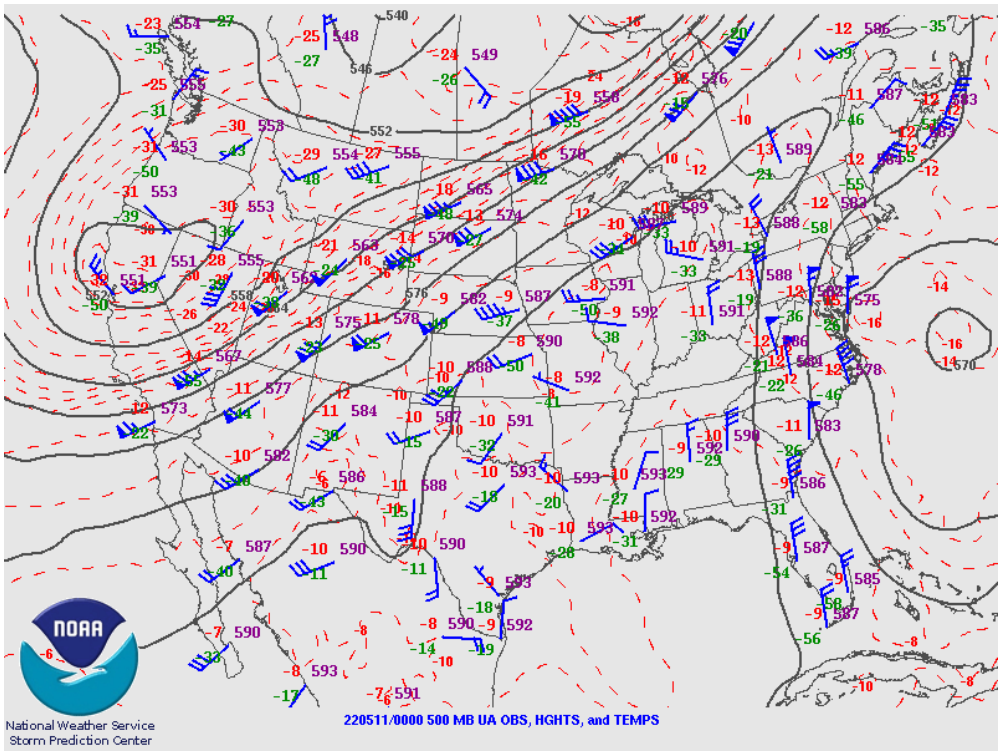


A series of AirNow-Tech Navigator maps from May 9th to May 12th shows the evolution of wildfire smoke from two sources: fires in New Mexico and fires in Mexico/Central America. The maps demonstrate how smoke from Mexico and Central America moved northward between the 9th and 10th into north-central Texas, merging with smoke moving eastward from the New Mexico wildfires. This combined smoke plume then moved into the Mid-Mississippi Valley and Ohio River Valley on the 11th, before shifting south over the Lower Mississippi Valley on the 12th, resulting in elevated PM2.5 readings.

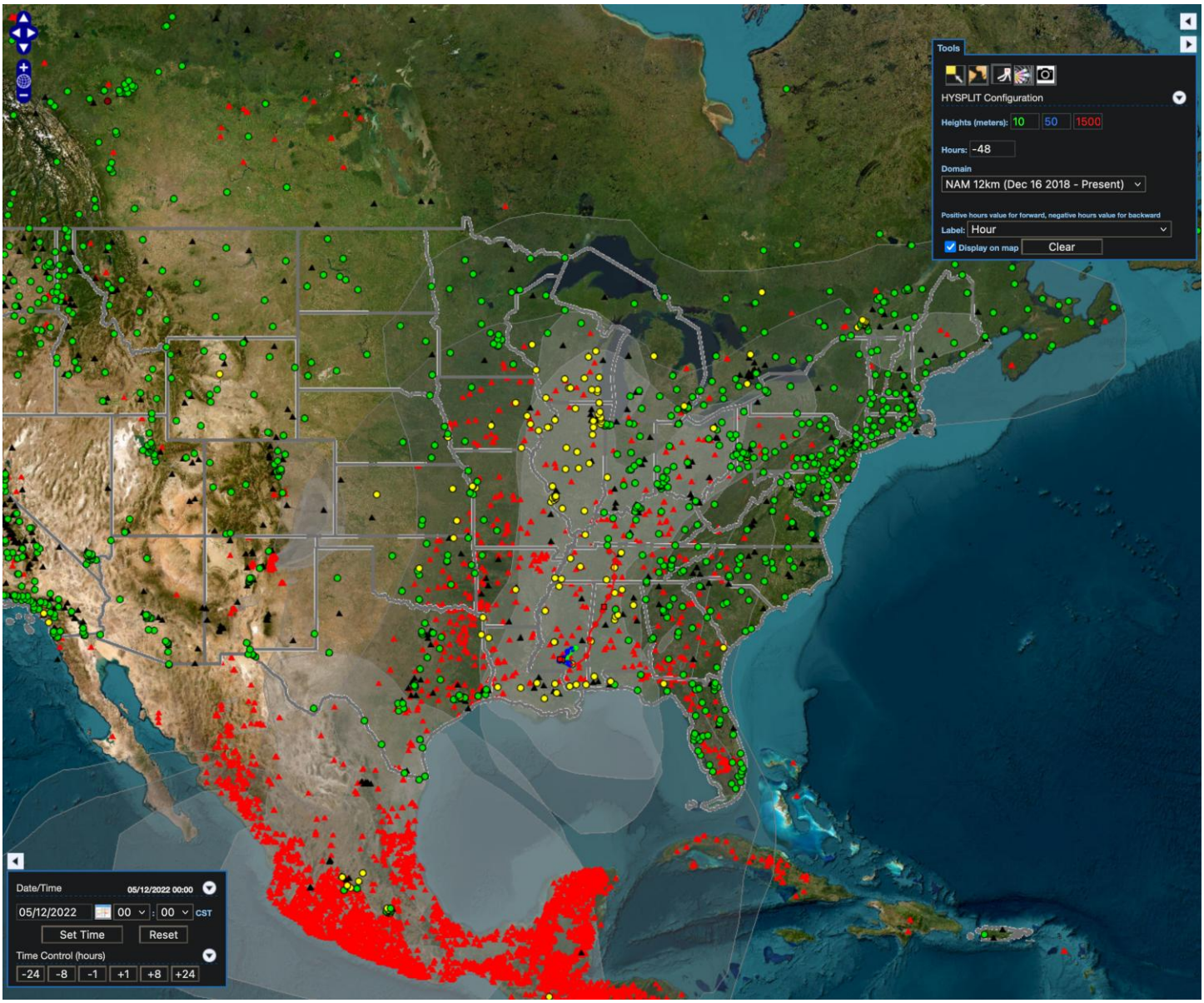


48-hour back trajectories on May 10th, showing 10m, 50m, and 1500m level parcels, demonstrate smoke transport from Mexico/Central American wildfires into Texas. This transport was facilitated by southerly winds on the backside of surface high pressure dominating the southeast, coupled with upper level troughing digging into the Four Corners region, which helped lift and transport the smoke into the south-central United States.

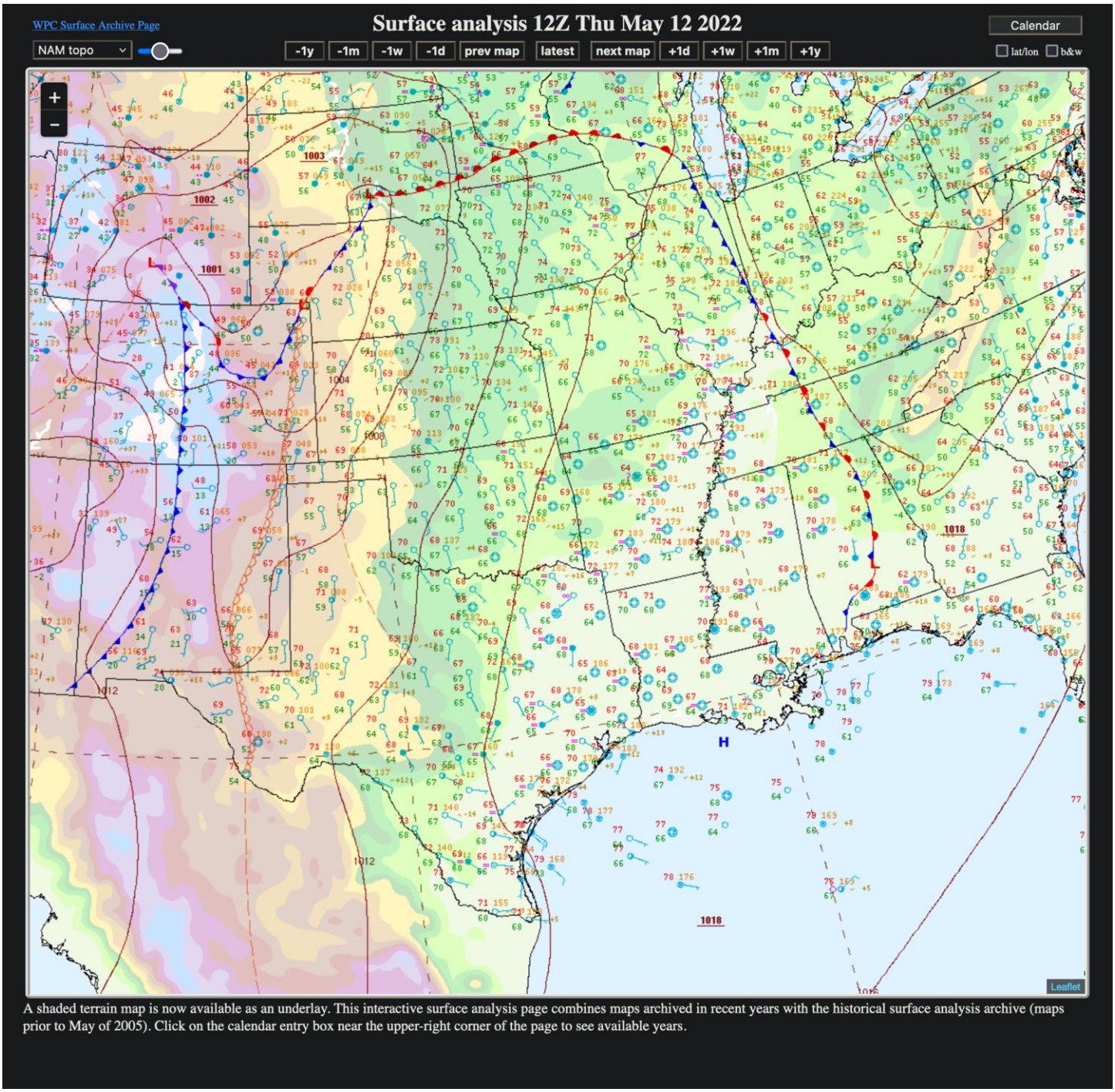




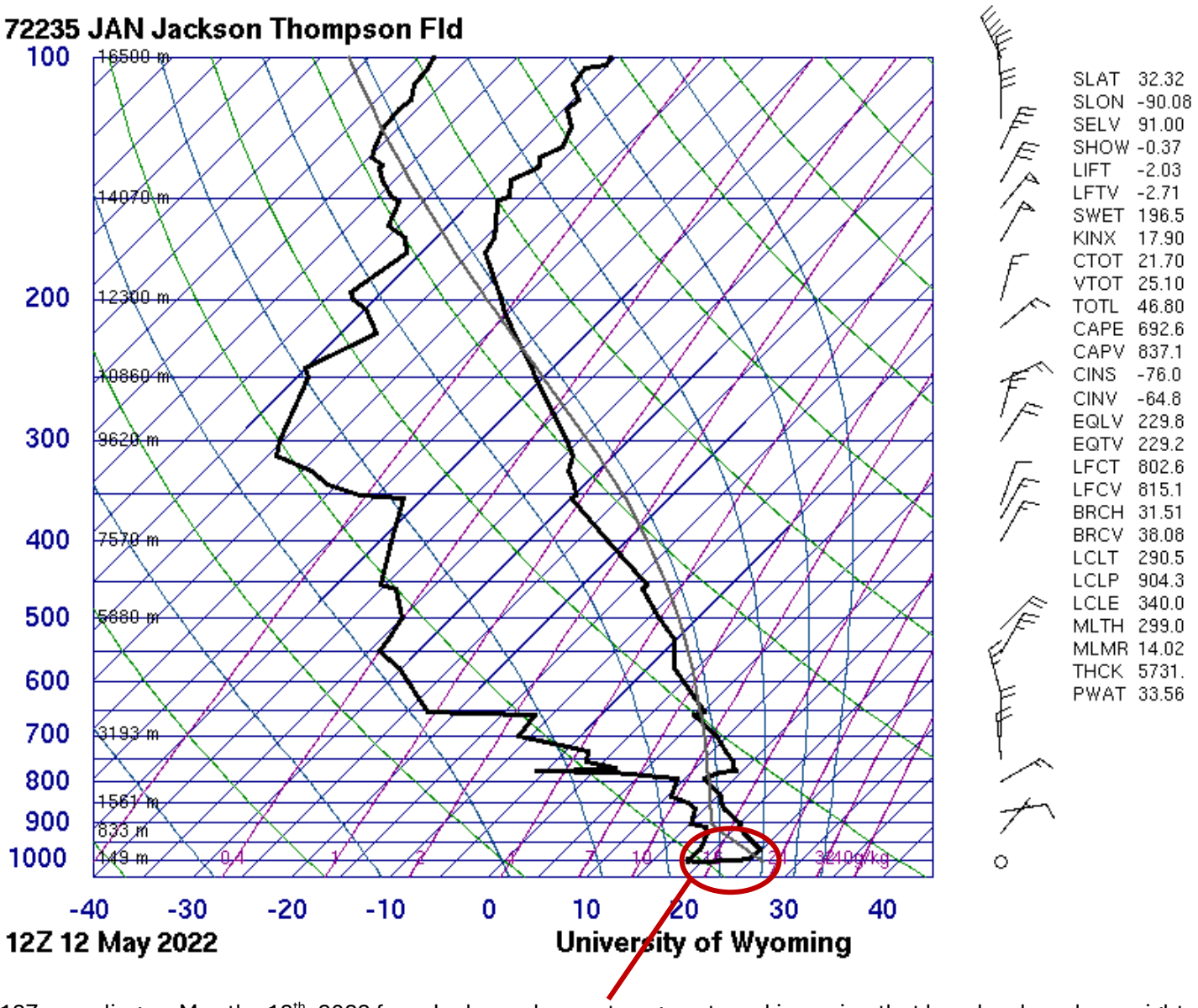
Both surface and upper-level maps illustrate the smoke transport pattern. The surface map shows southeasterly flow over Texas, while at 500mb, a trough digging into the western United States worked in tandem to transport smoke from both the New Mexico wildfires and the Mexico/Central American wildfires into the Midwest. Then, northerly flow on the east side of upper-level ridging over the Mid-Mississippi Valley helped transport smoke southward into the Lower Mississippi Valley



48-hour back trajectories on May 12th, showing 10m, 50m, and 1500m level parcels, demonstrate how smoke already present in the Mid-Mississippi Valley and Ohio River Valley was transported southward into the Lower Mississippi Valley. This transport was facilitated by northerly winds on the east side of upper-level ridging, which carried the smoke into the southern United States, elevating PM2.5 values at the Hattiesburg monitor.



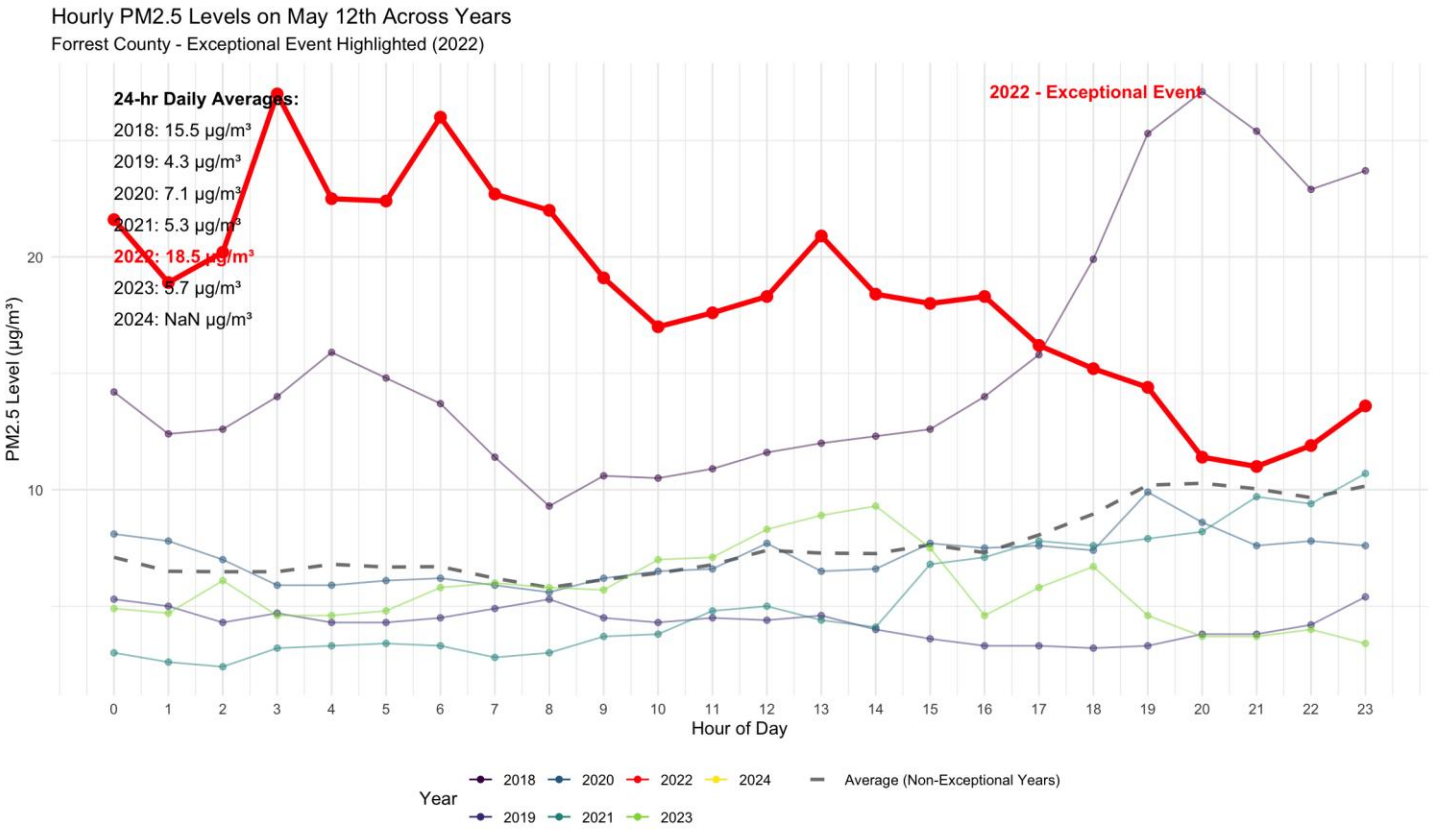
12Z surface map on May 12th shows calm conditions across the southeast with 1018mb High positioned just off central Louisiana coastline. Smoke that has moved in over the southeast, during the morning hours were trapped close to the surface thanks to nocturnal inversion development during the overnight hours under such calm conditions.



12Z sounding on May the 12th, 2022 from Jackson shows strong nocturnal inversion that has developed overnight, helping trap smoke near the surface, heightening PM2.5 values into the 20's.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/12/22	22.5	19.8	21.1	27.9	23.4	23.3	26.9	23.6	22.9	20	17.9	18.5	19.2	21.8	19.3	18.9	19.2	17.1	16.1	15.3	12.3	11.9	12.8	14.5	19.43	27.9

Hourly values from AirNow-Tech at the Hattiesburg monitor show PM2.5 values well into the twenties during the morning hours, due to a nocturnal inversion trapping smoke near the surface. As the day progressed, PM2.5 values dropped into the upper teens, and during the overnight hours, further decreased into the lower teens. With the majority of hourly values remaining in the teens and twenties due to transported smoke, the daily average was 19.43 µg/m^3.



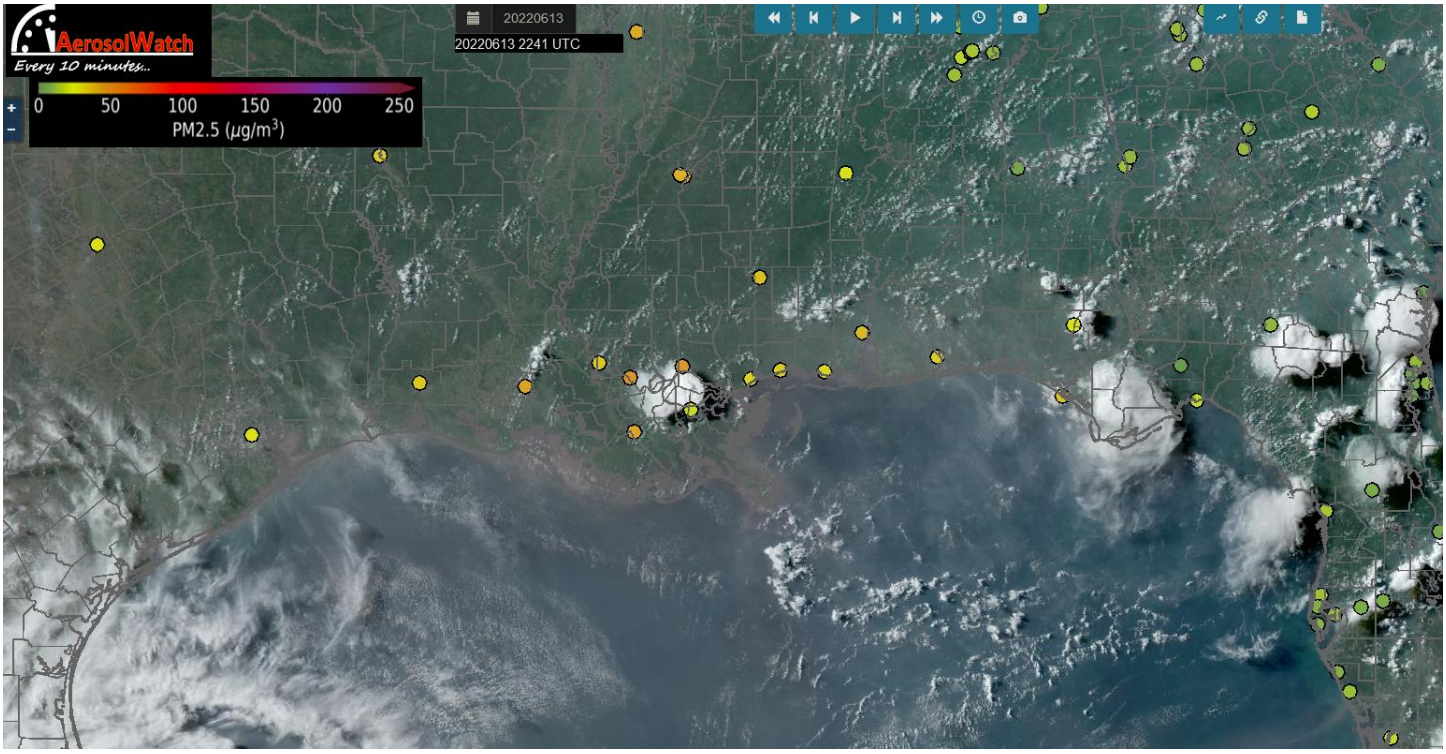
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting the higher values in 2022 compared to the average of non-exceptional years.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 13-15, 2022	Saharan Dust	IA	28-035-0004	Hattiesburg	30.4, 23.3, 20.1	2	Saharan Dust Exceptional Event Demonstration: June 13-15, 2022

Synopsis: Southerly flow at the surface thanks to Bermuda Ridge in place anchored off the Eastern Seaboard, issuing in deep tropical moisture over the southeastern United States. Imbedded in this southerly flow is Saharan dust making its way from the Atlantic, into the Gulf of Mexico, affecting the Texas, Louisiana, and Mississippi.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/13/22	70	68	81	81	82	83	79	82	85	89	74	73	86	71	71	74	74	68	79	65	71	61	61	71	74.96	89
Jackson NCORE/280490020/PM10-81102/1	06/13/22	60	48	45	67	81	95	114	128	133	132	139	148	163	133	122	127	138	510	139	128	137	136	134	110	115.52	163

Good indication of Saharan dust moving into the southeastern United States is depicted in figure above from PM10 monitoring locations in both Mississippi and Louisiana. Louisiana's Capitol PM10 monitor had a daily PM10 average of 75ug/m^3 and Mississippi's Jackson, NCORE station had a daily PM10 value on June 13th of 116ug/m^3.

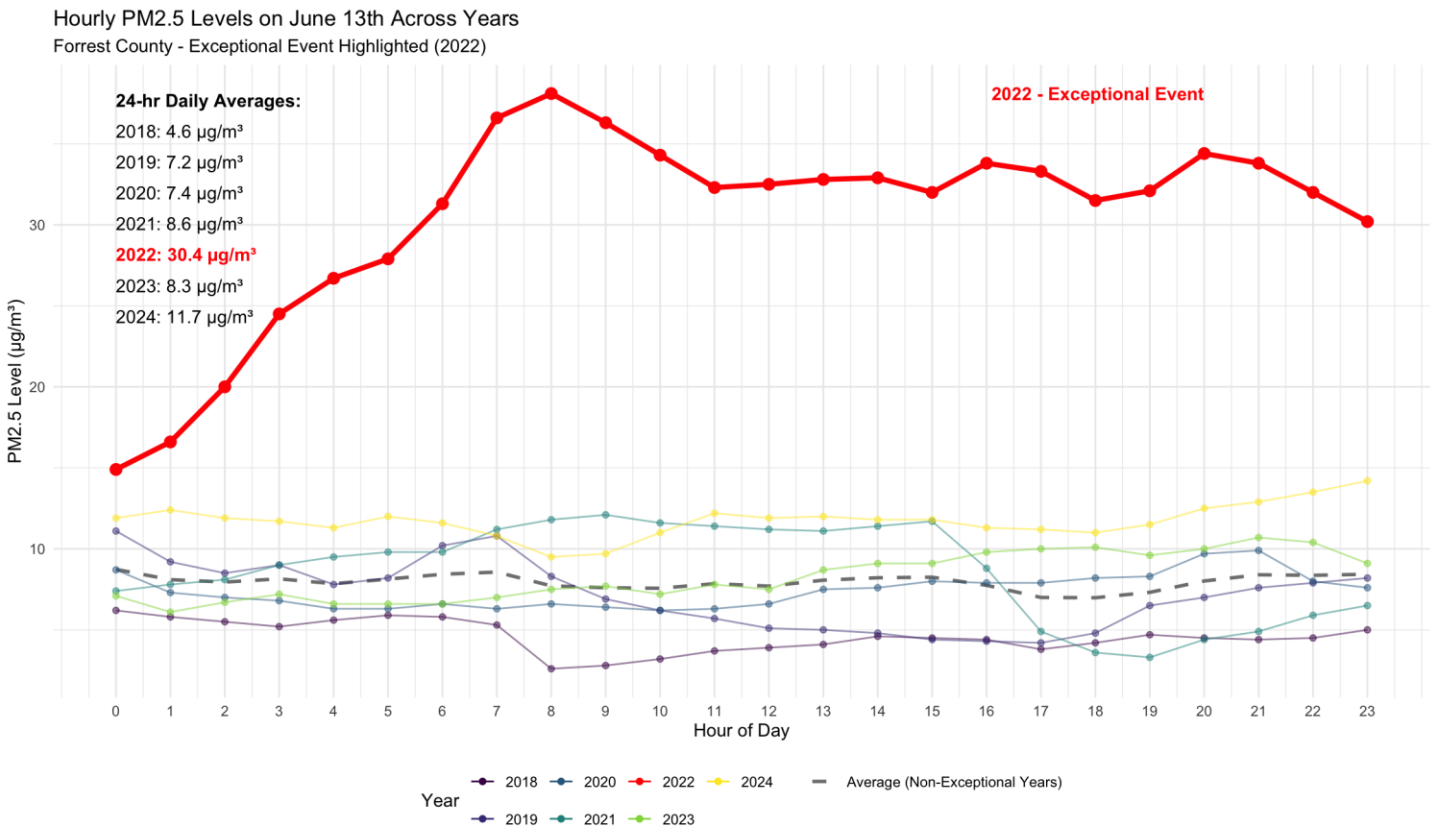


GOES-East GeoColor layer imagry taken at June 13th, 2022 at 2241UTC, showing heavy dust across the northern Gulf of Mexico and inland, across the Gulf States, increasing both PM10 and PM2.5 levels. Shown in the image along with the dust is PM2.5 monitoring site overlays.

72-Hour back trajectories, showing 10m, 50m, and 1500m level parcels bringing Saharan dust from the Gulf of Mexico, onshore, across the Gulf States.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/13/22	15.8	17.5	20.9	25.4	27.6	28.8	32.2	37.5	39	37.2	35.2	33.2	33.4	33.7	33.8	32.9	34.7	34.2	32.4	33	35.3	34.7	32.9	31.1	31.35	39

Hattiesburg monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 31.35ug/m^3 on June 13, 2022.

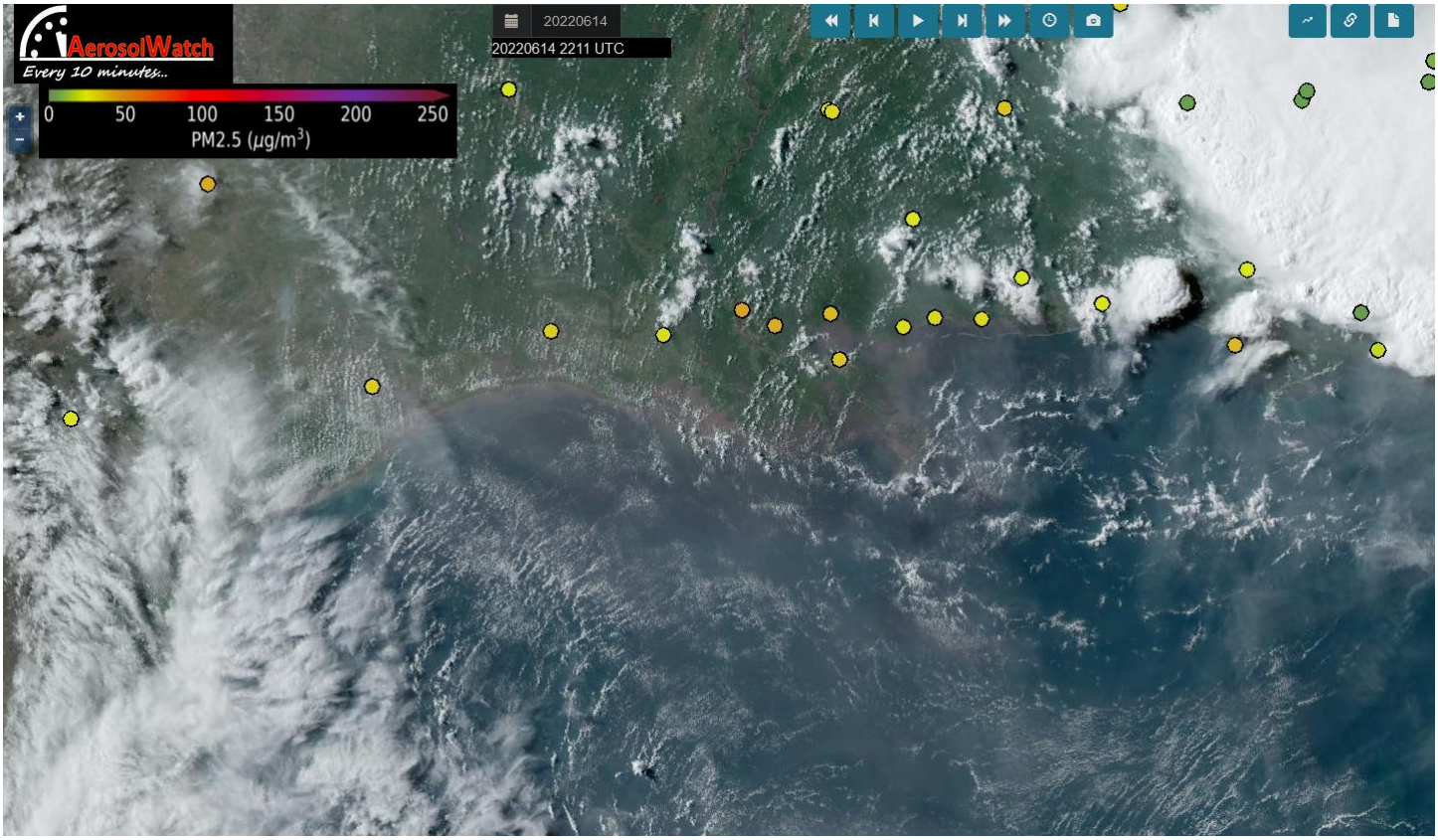


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to Saharan Dust across the Gulf States.

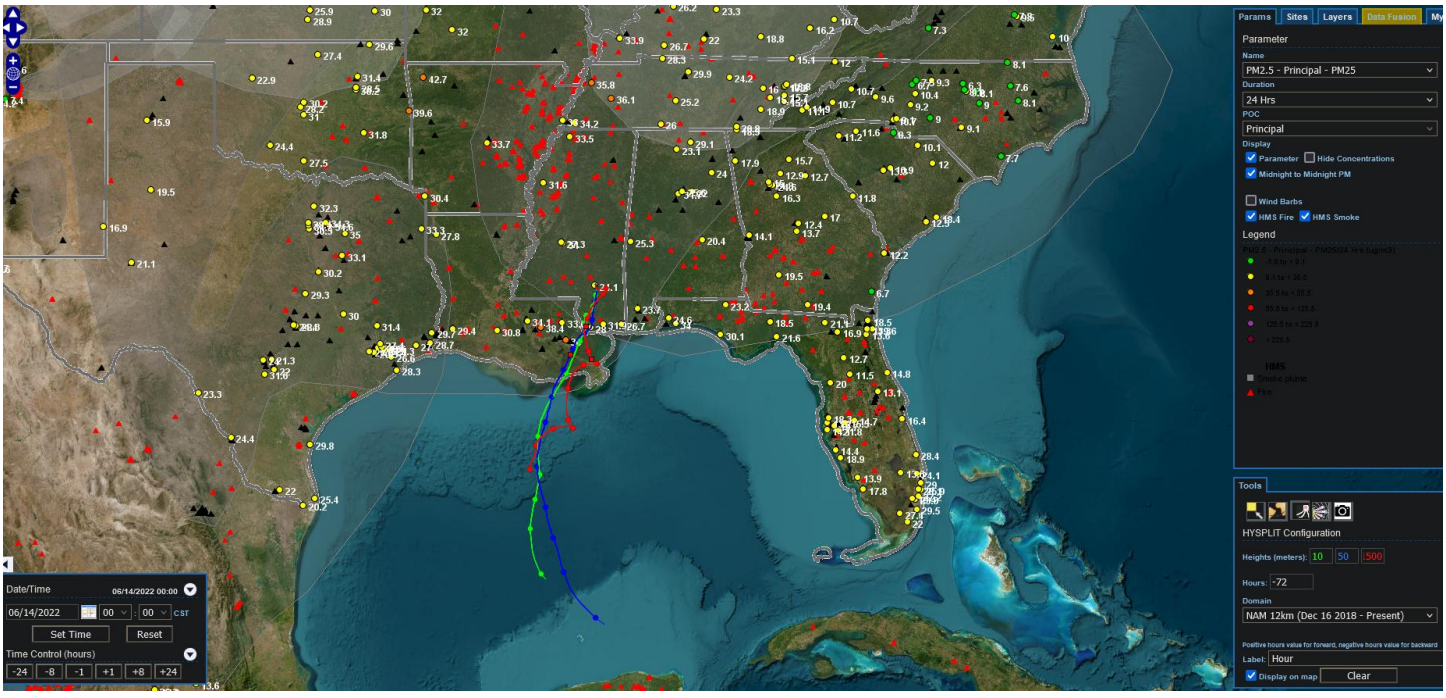
June 14th: Continuation of Saharan Dust event as persistent southerly flow around backside of Bermuda ridge, continued to issue in Saharan dust over the Gulf States from the Gulf of Mexico. We can see the continuation by looking at the hourly PM10 values for both Louisiana's Capitol PM10 Monitor as well as Mississippi's, Jackson NCORE monitor as seen in the figure below.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/14/22	63	71	70	63	70	53	62	57	62	72	78	72	67	60	69	51	67	84	75	78	76	81	70	71	68.42	84
Jackson NCORE/280490020/PM10-81102/1	06/14/22	105	114	114	94	120	112	104	109	117	120	125	137	131	117	114	95	98	89	80	47	46	51	88	76	100.13	137

PM10 values were high with a daily average of 68 at Louisiana's PM10 monitor and a daily PM10 average of 100 at Mississippi's Jackson NCORE monitor.



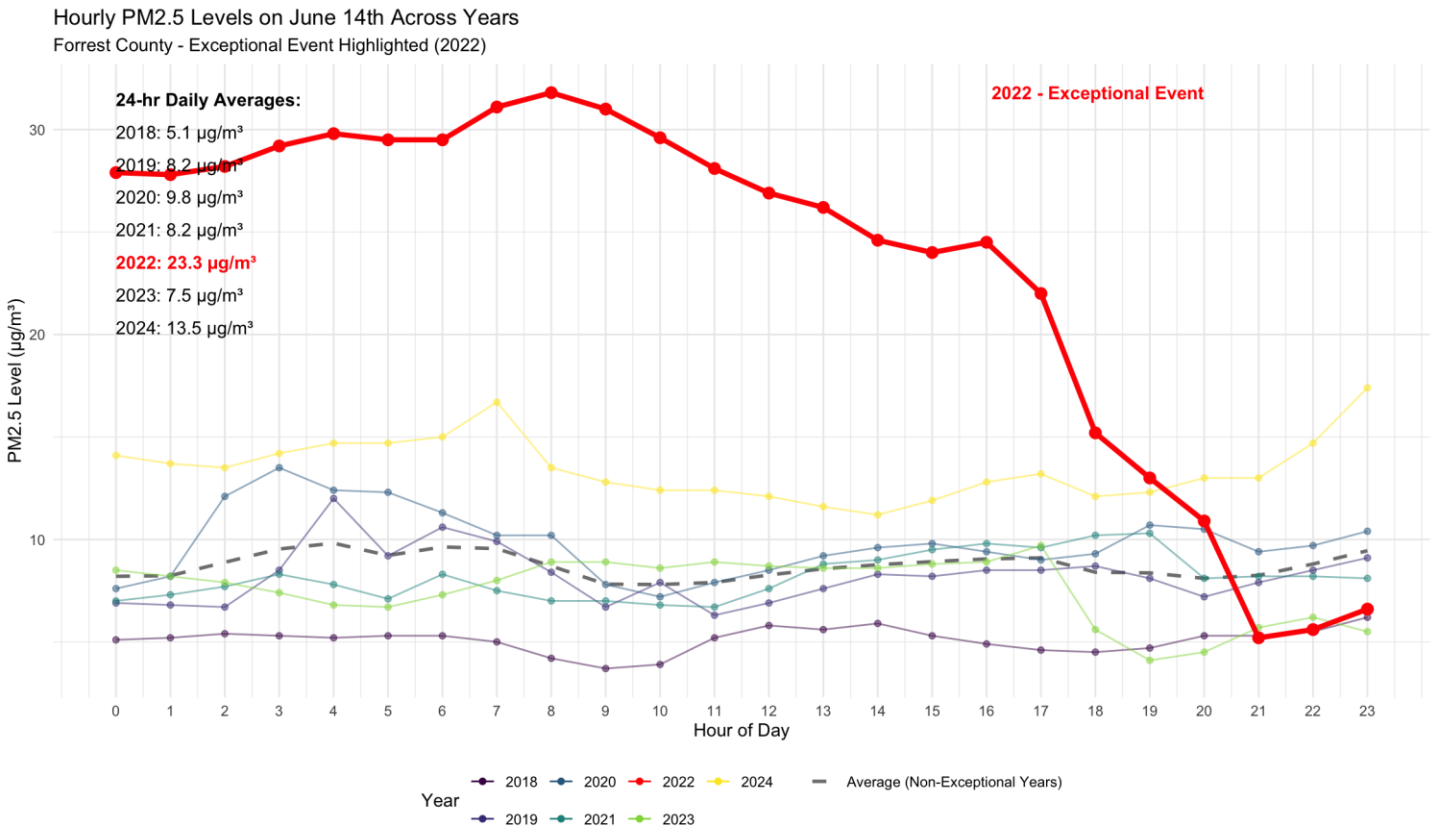
GOES-East GeoColor layer imagry taken at June 14th, 2022 at 2211UTC, showing continued heavy Saharan dust across the northern Gulf of Mexico and inland, across the Gulf States, increasing both PM10 and PM2.5 levels. Shown in the image along with the dust is PM2.5 monitoring site overlays.



72-Hour back trajectories, showing 10m, 50m, and 1500m level parcels continuing to issue in Saharan dust from the Gulf of Mexico, onshore, across the Gulf States on June 14, 2022.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/14/22	28.8	28.7	29.1	30.1	30.7	30.4	30.4	32	32.7	31.9	30.5	29	27.8	27.1	25.5	24.9	25.4	22.9	16.1	13.9	11.8	6.1	6.5	7.5	24.16	32.7

Hattiesburg monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 24.16 ug/m^3 on June 14, 2022

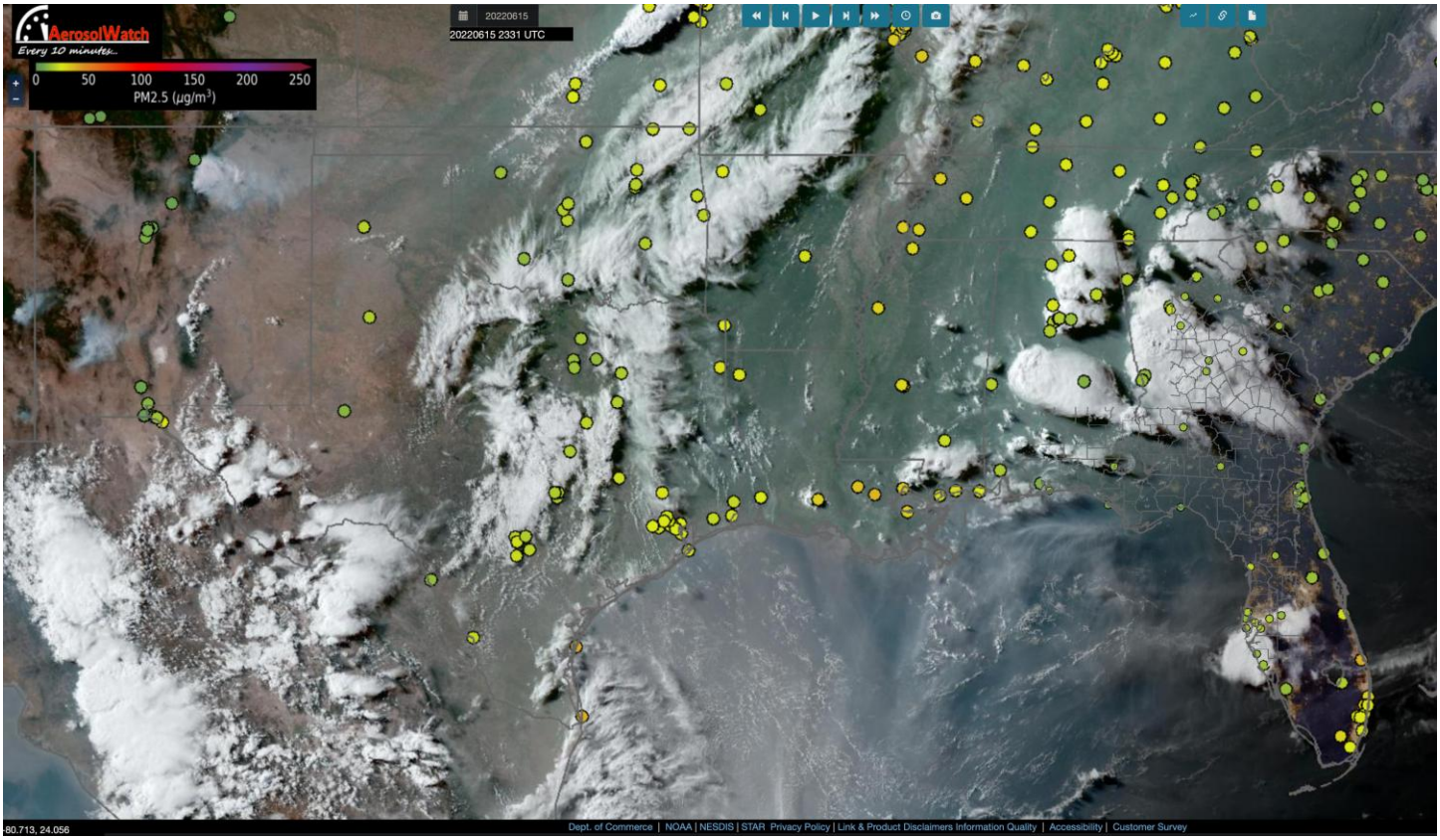


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to Saharan Dust across the Gulf States.

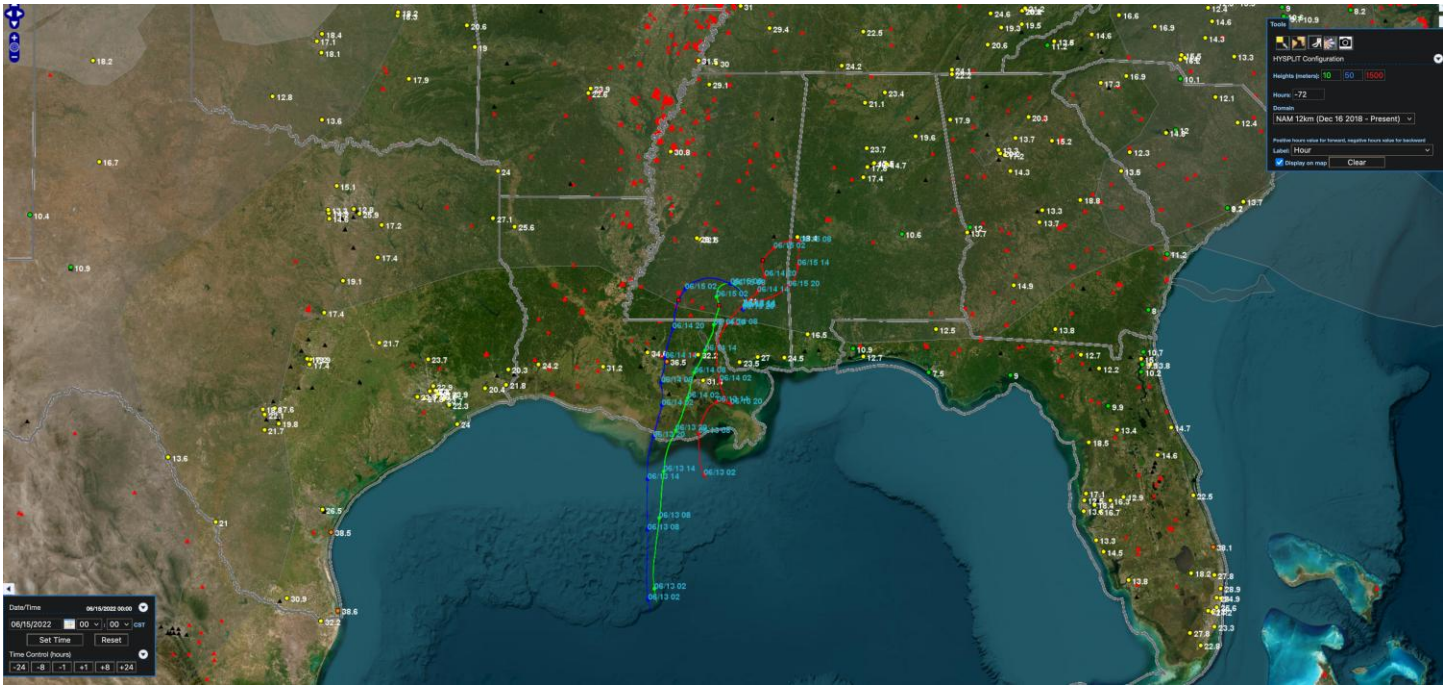
June 15th: Continuation of Saharan Dust event as persistent southerly flow around backside of Bermuda ridge, continued to issue in Saharan dust over the Gulf States from the Gulf of Mexico. We can see the continuation by looking at the hourly PM10 values for both Louisiana's Capitol PM10 Monitor as well as Mississippi's, Jackson NCORE monitor as seen in the figure below.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/15/22	64	62	72	60	67	67	77	73	68	71	66	62	61	58	59	57	62	60	62	69	66	63	54	57	64.04	77
Jackson NCORE/280490020/PM10-81102/1	06/15/22	76	77	78	91	95	106	113	111	133	141	135	136	110	105	136	116	93	91	89	86	86	79	81	75	101.63	141

PM10 values were high with a daily average of 64 at Louisiana's PM10 monitor and a daily PM10 average of 101 at Mississippi's Jackson NCORE monitor.



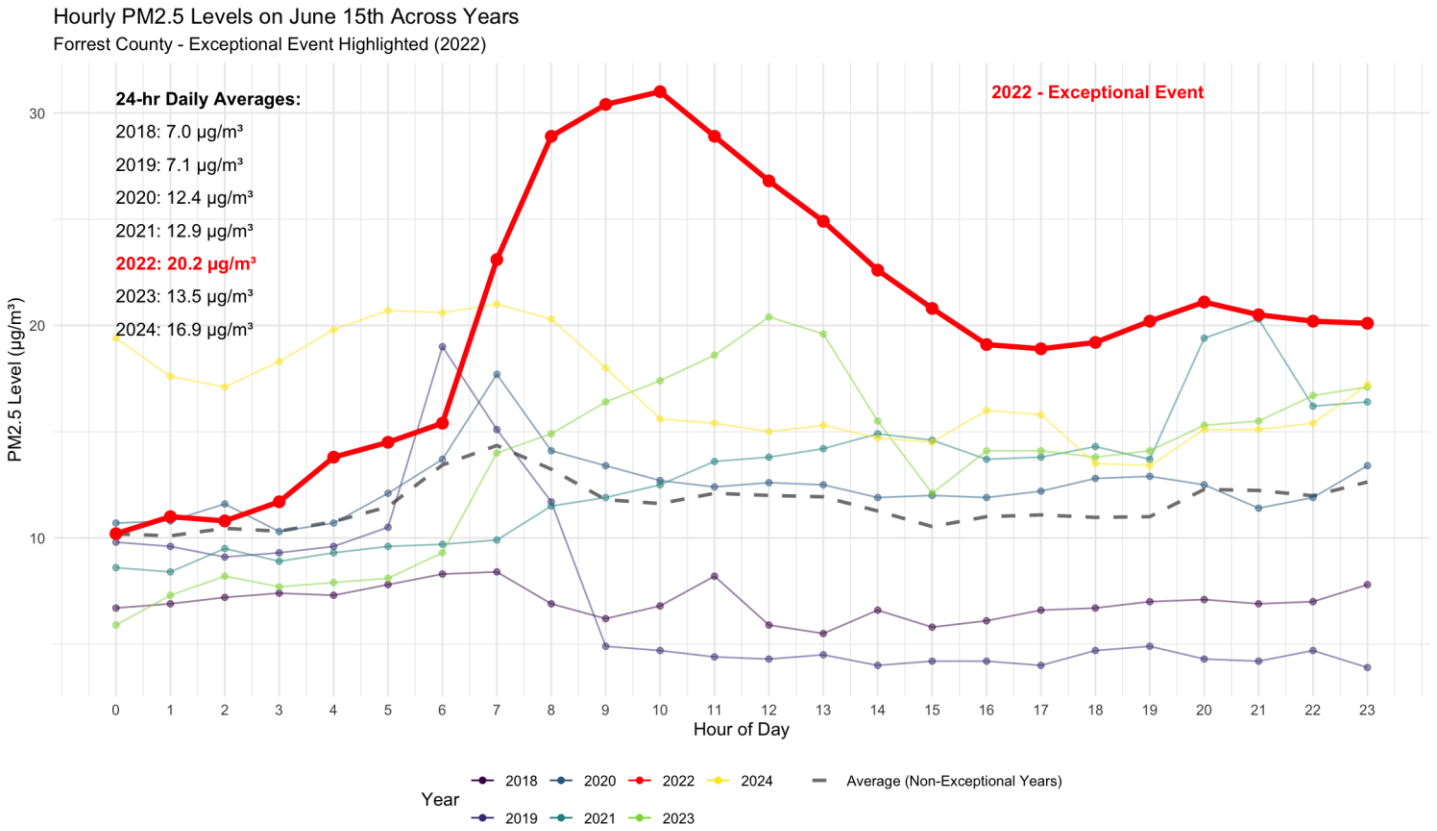
GOES-East GeoColor layer imagry taken at June 15th, 2022 at 2331UTC, showing continued heavy Saharan dust across the northern Gulf of Mexico and inland, across the Gulf States, increasing both PM10 and PM2.5 levels. Shown in the image along with the dust is PM2.5 monitoring site overlays.



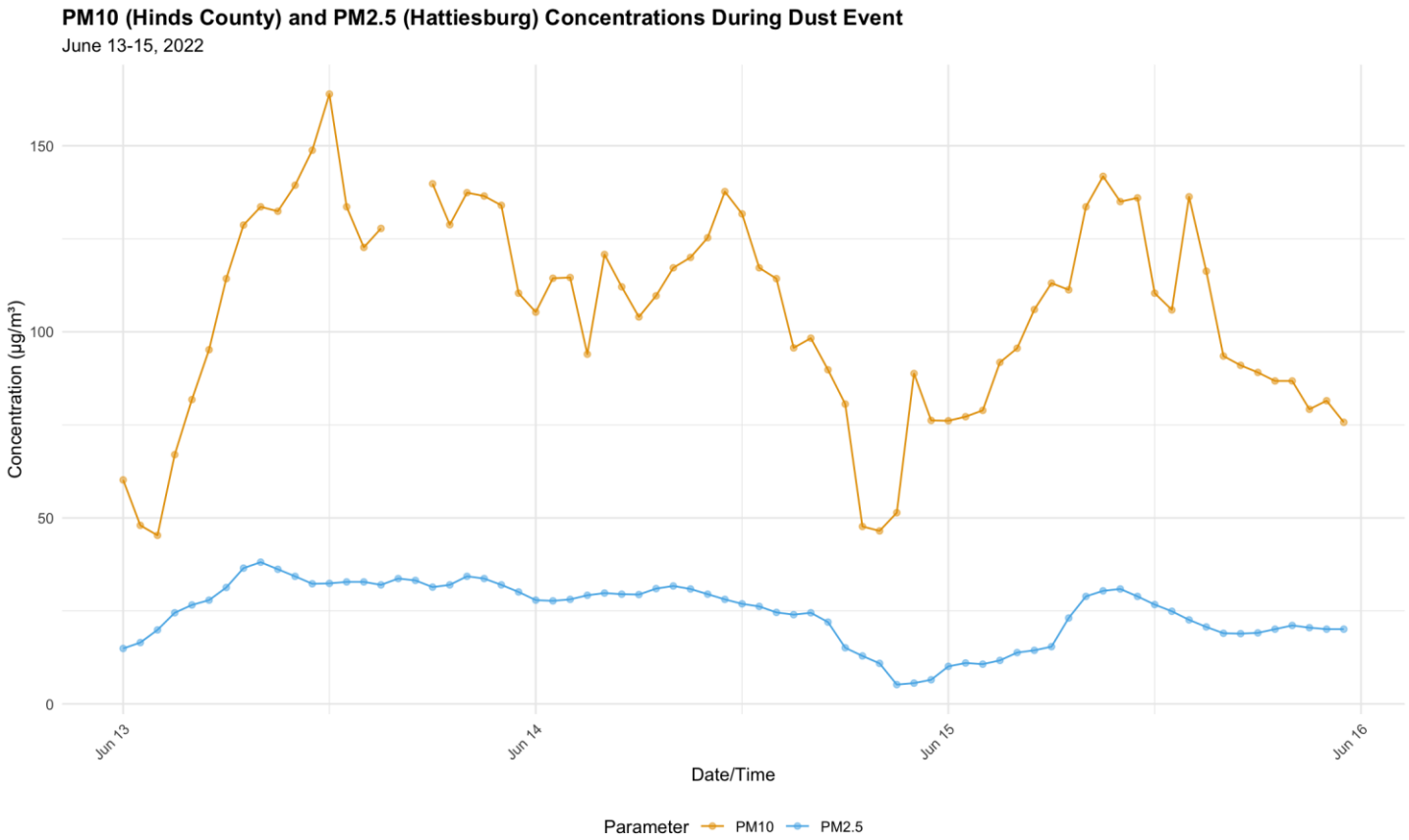
72-Hour back trajectories, showing 10m, 50m, and 1500m level parcels continuing to issue in Saharan dust from the Gulf of Mexico, onshore, across the Gulf States on June 15, 2022.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/15/22	11.1	11.9	11.7	12.6	14.7	15.4	16.3	24	29.8	31.3	31.9	29.8	27.7	25.8	23.5	21.7	20	19.8	20.1	21.1	22	21.4	21.1	21	21.07	31.9

Hattiesburg monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 21.07 ug/m^3 on June 15, 2022

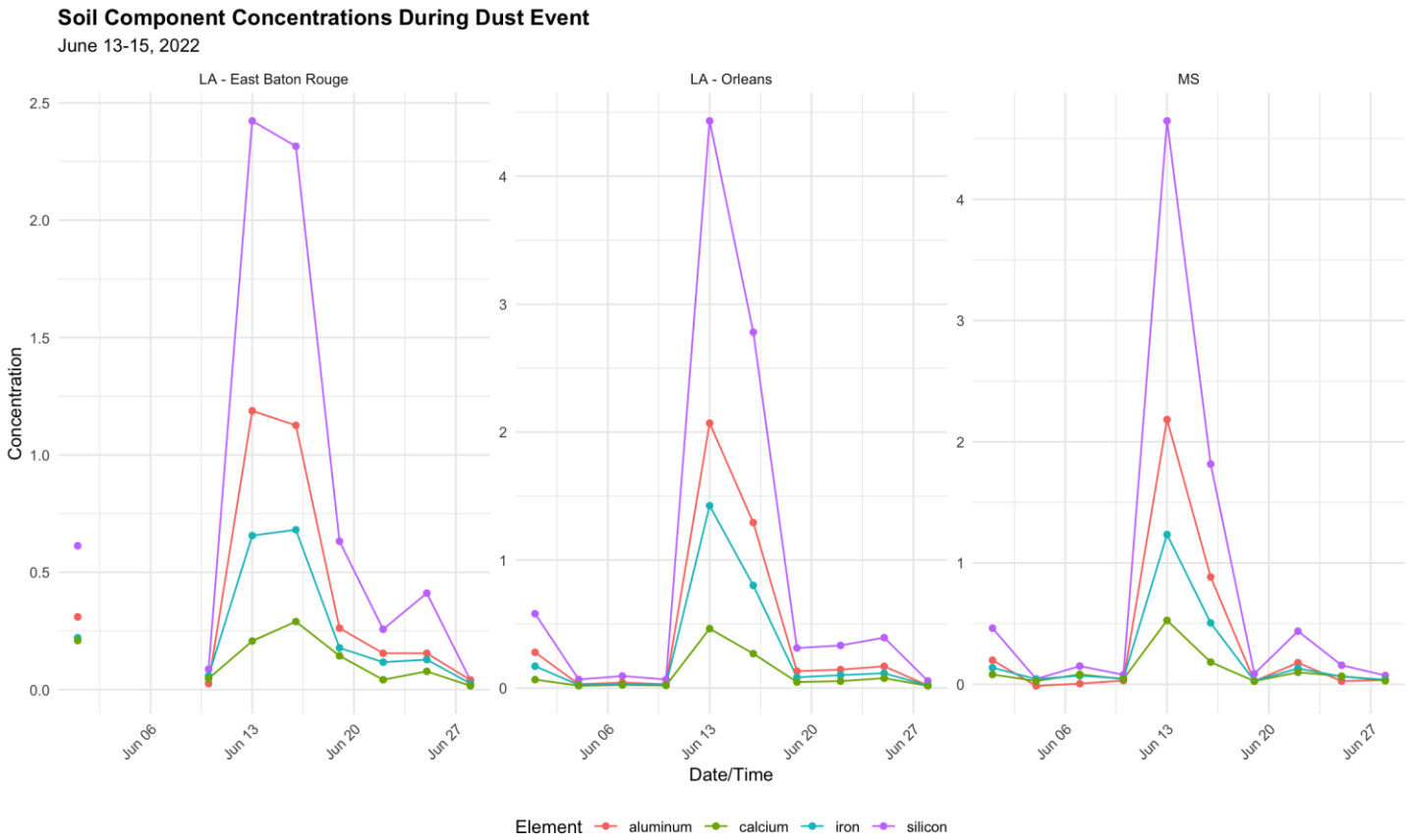


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to Saharan Dust across the Gulf States.



During June 13-15, 2022, Mississippi's monitoring sites showed a strong correlation between PM10 and PM2.5 concentrations (correlation coefficient: 0.77), indicating a consistent regional-scale dust impact. The hourly PM10 concentrations at the Hinds County NCore site reached a maximum of 163.9 µg/m^3 with a mean of 105.6 µg/m^3, while PM2.5 levels in Hattiesburg peaked at 38.1 µg/m^3 with a mean of 24.6 µg/m^3 over the 3-day event. The consistent ratio between PM10 and PM2.5, where PM2.5 levels were approximately 20-25% of PM10 concentrations, is characteristic of African dust events, as larger soil particles dominate the particle size distribution.

The time series plot demonstrates clear temporal alignment between PM10 and PM2.5 peaks, with both parameters showing elevated concentrations throughout the period. The high PM10 levels, averaging more than 100 µg/m^3, combined with proportionally elevated PM2.5 concentrations, suggest the presence of significant coarse particle dust typical of long-range transport from the Saharan region. The substantial standard deviations (PM10: 27.5 µg/m^3, PM2.5: 8.2 µg/m^3) reflect the dynamic nature of the dust event, with concentrations varying as dust plumes moved through the region.



Silicon, aluminum, iron, and calcium are the most abundant soil components in African dust events (Goudie & et al, 2001) (Formenti & et al, 2011). The speciation data from June 2022 strongly supports the presence of these characteristic African dust components during June 13-15, 2022, across Louisiana and Mississippi monitoring sites. All three sites (East Baton Rouge, Orleans, and Mississippi) show a distinct peak in these soil-related elements during this period, with silicon showing the highest concentrations followed by aluminum and iron - a signature pattern typically associated with Saharan dust.

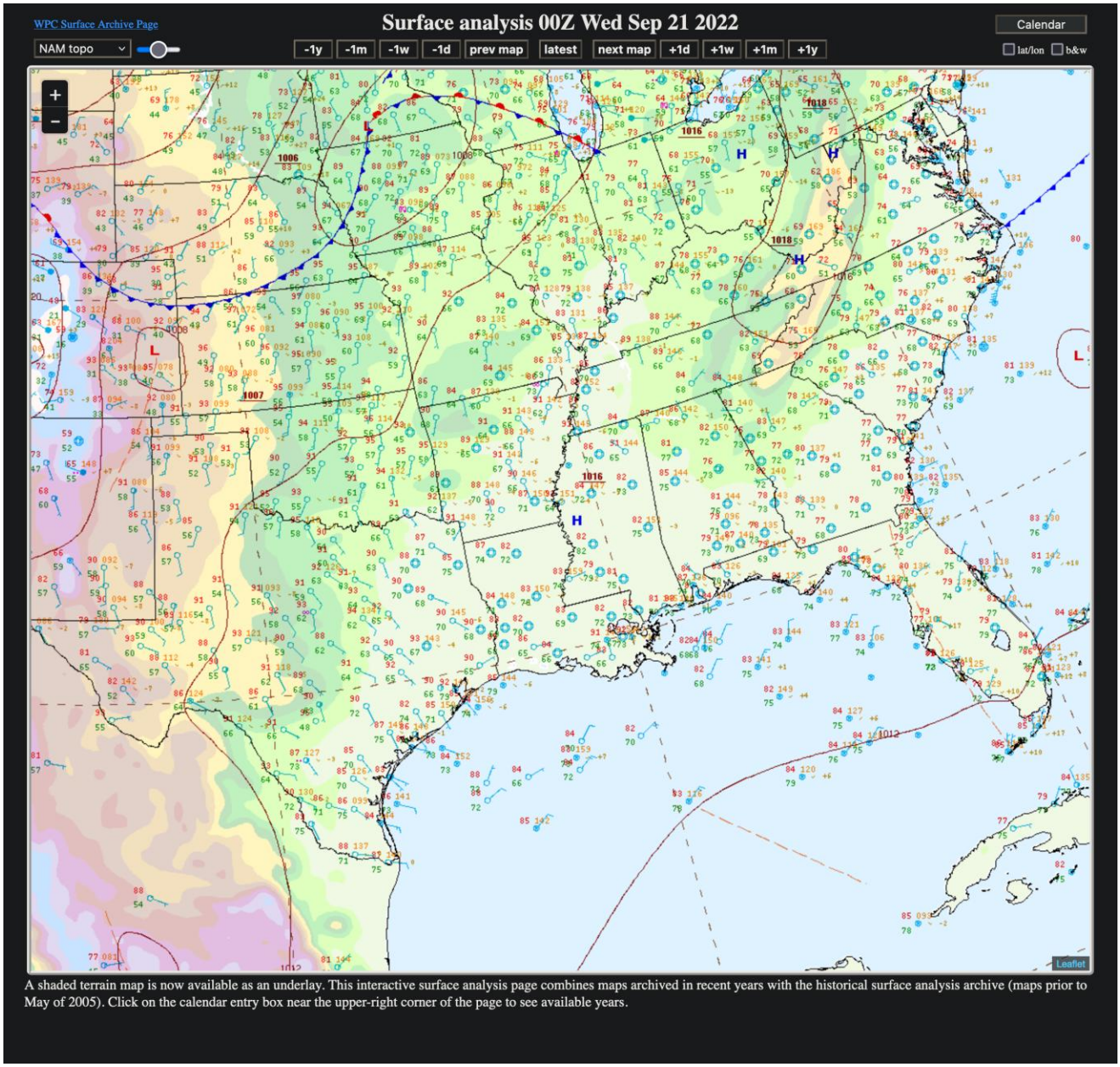
Specifically, silicon concentrations showed a dramatic increase from baseline levels to peak values around 2.4 $\mu g/m^3$ in East Baton Rouge, 4.0 $\mu g/m^3$ in Orleans, and 4.0 $\mu g/m^3$ at Mississippi's NCORE site during June 13th. This spike in silicon, along with corresponding increases in aluminum, iron, and calcium, is characteristic of African dust transport events. The temporal correlation of these elements across all three sites indicates a regional-scale dust impact rather than local sources.

The data shows a clear contrast between the June 13-15 period and the rest of the month. Before and after this event, concentrations of these soil components remained at much lower baseline levels (typically below 0.5 $\mu g/m^3$), highlighting the unusual nature of this three-day period. The simultaneous elevation of these crustal elements (Si, Al, Fe, Ca) in their characteristic ratios, combined with the elevated PM2.5 values, provides strong evidence that Saharan dust was the primary contributor to the increased PM2.5 concentrations observed during this period.

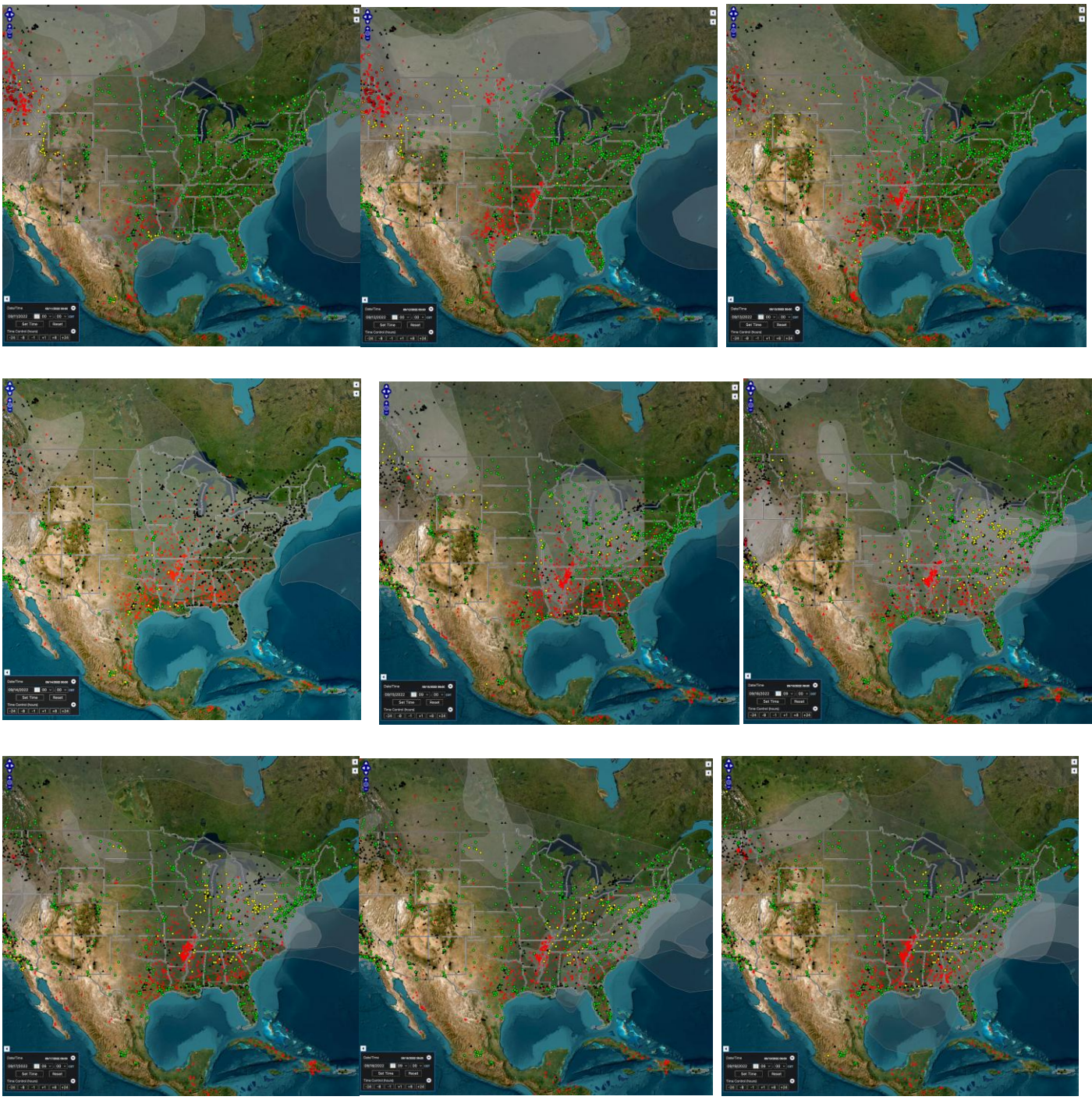
This speciation data, when combined with the elevated PM10 and PM2.5 measurements, creates a comprehensive picture of an African dust event affecting the Gulf Coast region during this timeframe.

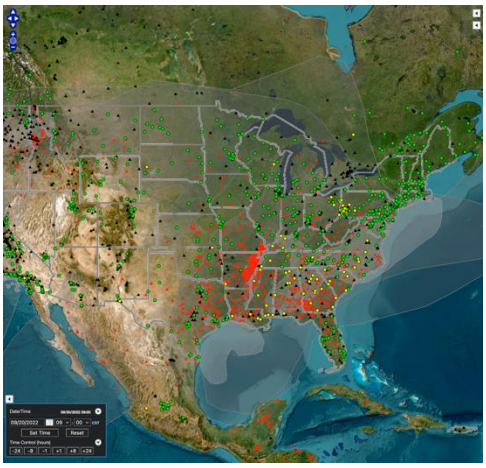
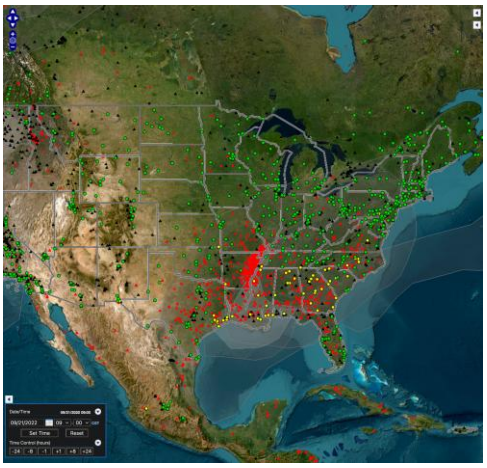
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
September 20, 2022	Wildfire	RT	28-035-0004	Hattiesburg	18.8	2	Wildfire C Exceptional Event Demonstration: September 20, 2022

Synopsis: Strong surface high pressure was anchored over the southeastern states on September 20th, 2022, and in the days prior, enabling stagnant conditions. A large batch of wildfire smoke during the days prior to September 20th, 2022, was located in the Northeastern United States and along the Eastern Seaboard. The smoke had originated from fires in the upper northwestern United States before moving into the Upper Midwest and eventually into the Northeastern United States and Eastern Seaboard. This batch of smoke rotated anticyclonically around the aforementioned surface high pressure into the Gulf states on the 19th and 20th, leading to elevated PM2.5 levels across the southeastern United States. The highest values at the Hattiesburg monitor occurred on September 20th, with a 24-hour daily PM2.5 average of 18.9 µg/m^3.

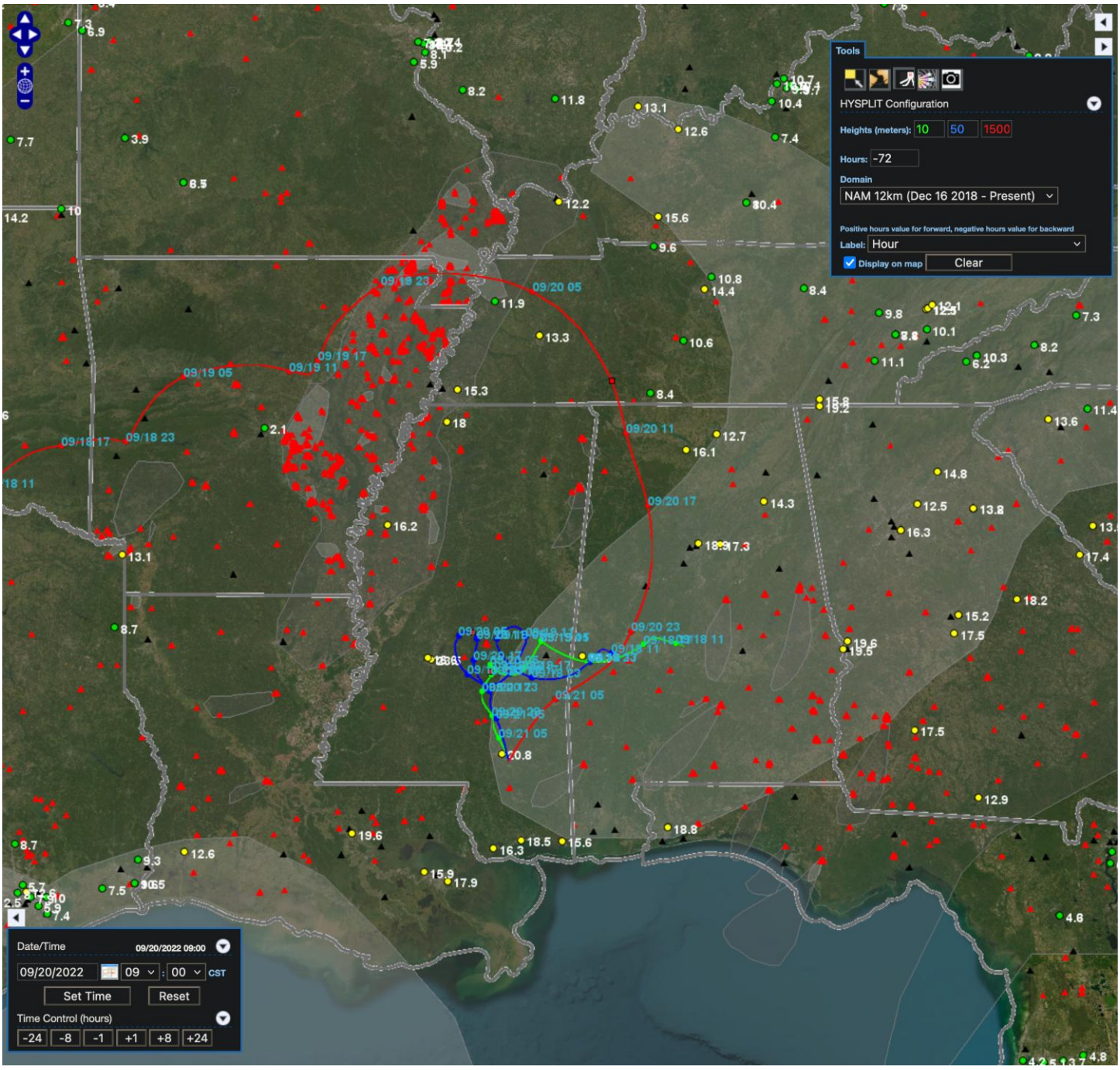


Surface map taken 00UTC Wednesday, September 21st (Tuesday, September 20th, 7PM CDT) showing expansive High pressure over the entire southeastern United States.

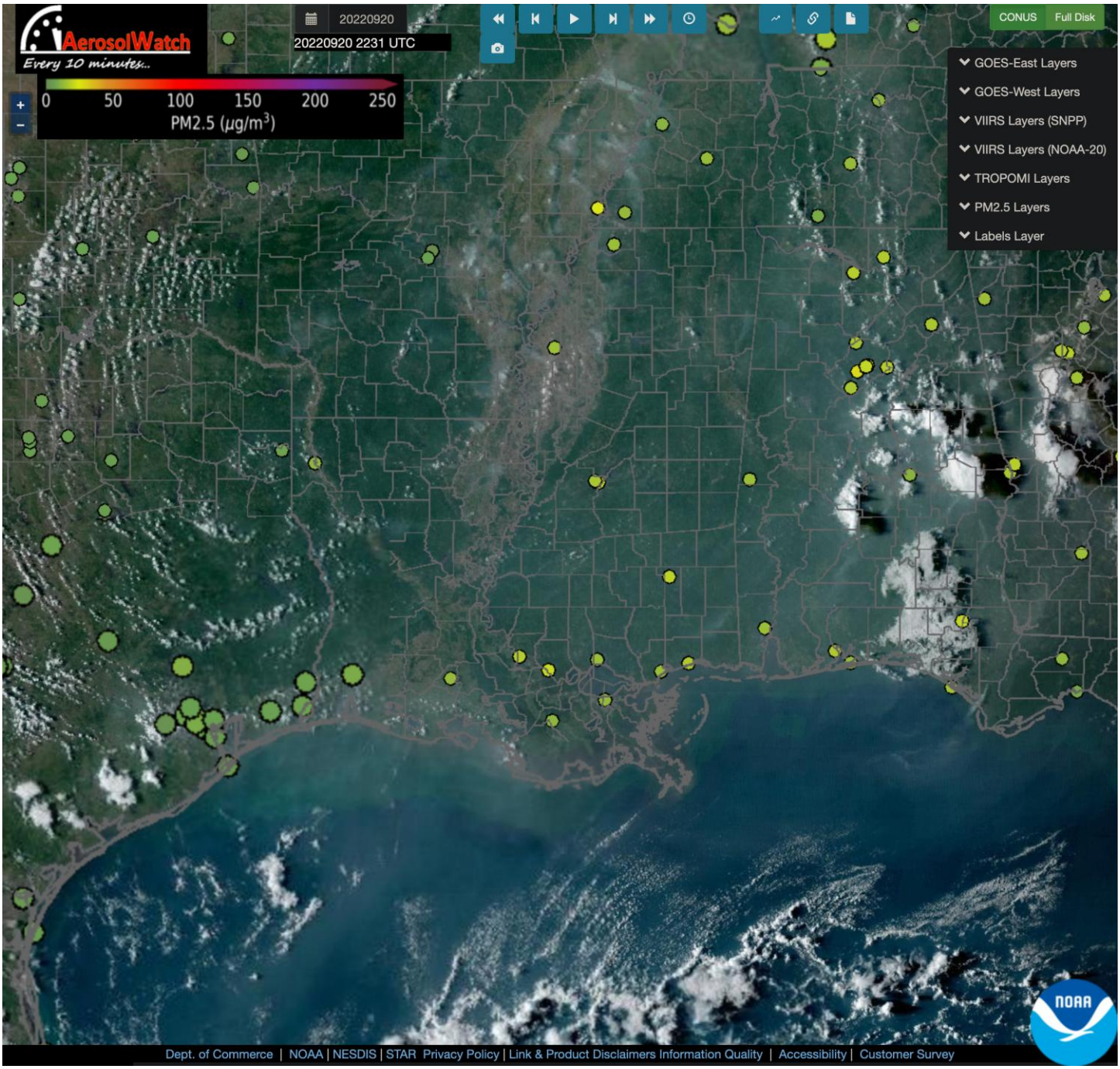


Series of Airnowtech Navigator maps showing from September 11th to September 21st, the evolution of wildfire smoke that originated from western Canada and northwestern United States, how it moved eastward across northern United States, then to the northeast, to the northeastern seaboard, eventually making its way down into the southeastern United States.



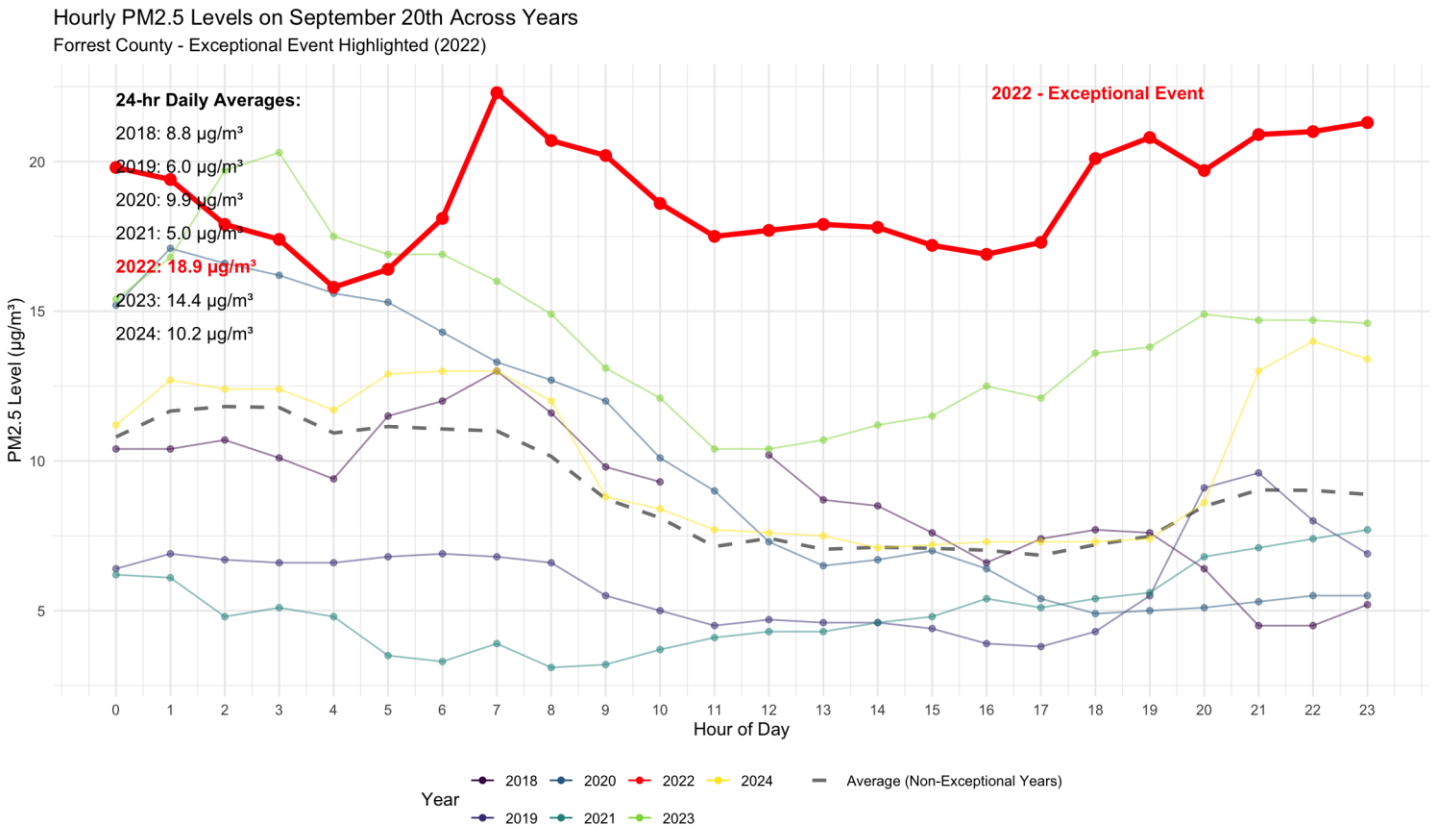
72-Hour back trajectory on day of exceptional event (September 20th, 2022) shows very little movement of the lowest 10m and 50m parcels, indicating stagnant conditions as light easterly / northeasterly flow issued in smoke over that Hattiesburg monitor.



GOES True color imagery at 2231UTC (17:31CDT) showing smoke layer across Mississippi and Alabama, increasing PM2.5 Values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	09/20/22	20.7	20.3	18.8	18.3	17.7	18.3	19	23.2	21.6	21.1	19.5	18.4	18.6	18.8	18.7	18.1	17.8	18.2	21	21.7	20.6	21.8	21.9	22.2	19.85	23.2

Hourly values from AirNowTech showed PM2.5 concentrations in the upper teens and twenties throughout the day as wildfire smoke impacted the monitor, resulting in a PM2.5 daily average of 19.85 µg/m^3.

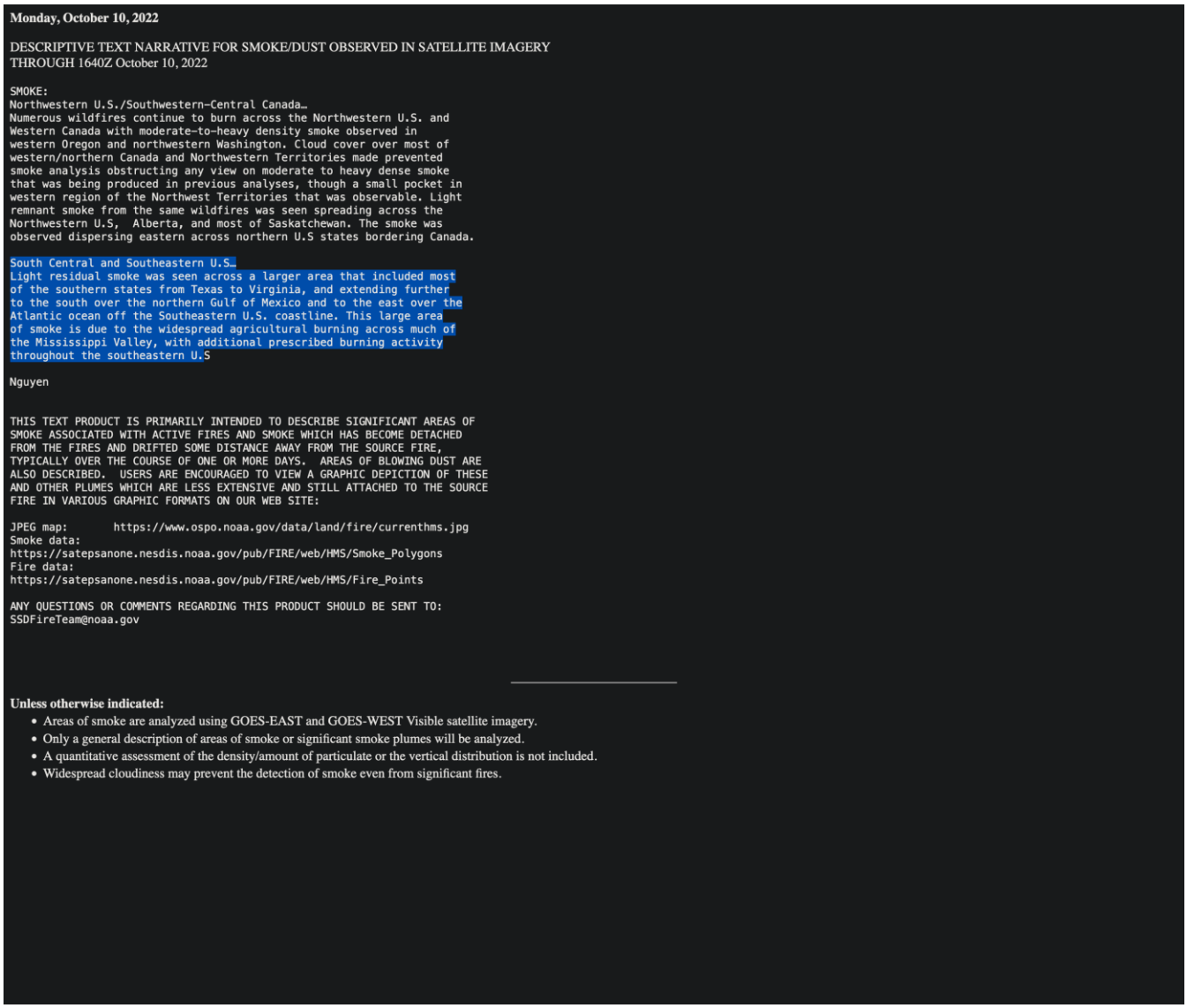


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to wildfire smoke impacting the Hattiesburg monitor.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
October 10-11, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	21 & 25.9	2	Prescribed Fire Exceptional Event Demonstration: Oct 10-11, 2022

Synopsis: Strong surface High pressure across the southeast moved in after a cold front passed through from a couple days prior. Light residual smoke was seen across a larger area that included most of the southern states from Texas to Virginia, and extending further to the south over the northern Gulf of Mexico and to the east over the Atlantic Ocean off the southeastern United States coastline. This large area of smoke is due to the widespread agricultural burning across much of the Mississippi Valley, with additional prescribed burning activity throughout the southeastern United States.

PM25 values at the Hattiesburg monitor during the morning hours into the mid-afternoon hours were reading into the mid-teens' thanks in part to the residual smoke from previous days prescribed fires across the United States that hung around thanks to surface High pressure. PM2.5 values increased during the afternoon and evening hours thanks to a prescribed burn that was occurring to the northeast of the monitor. Surface winds during this time was blowing from northeast to southwest, directing the smoke plume directly over the Hattiesburg monitor, raising PM2.5 values during into the USG range with a one-hour max of 52.9ug/m^3.



Monday, October 10, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1640Z October 10, 2022

SMOKE:
Northwestern U.S./Southwestern-Central Canada…
Numerous wildfires continue to burn across the Northwestern U.S. and Western Canada with moderate-to-heavy density smoke observed in western Oregon and northwestern Washington. Cloud cover over most of western/northern Canada and Northwestern Territories made prevented smoke analysis obstructing any view on moderate to heavy dense smoke that was being produced in previous analyses, though a small pocket in western region of the Northwest Territories that was observable. Light remnant smoke from the same wildfires was seen spreading across the Northwestern U.S, Alberta, and most of Saskatchewan. The smoke was observed dispersing eastern across northern U.S states bordering Canada.

South Central and Southeastern U.S…
Light residual smoke was seen across a larger area that included most of the southern states from Texas to Virginia, and extending further to the south over the northern Gulf of Mexico and to the east over the Atlantic ocean off the Southeastern U.S. coastline. This large area of smoke is due to the widespread agricultural burning across much of the Mississippi Valley, with additional prescribed burning activity throughout the southeastern U.S

Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

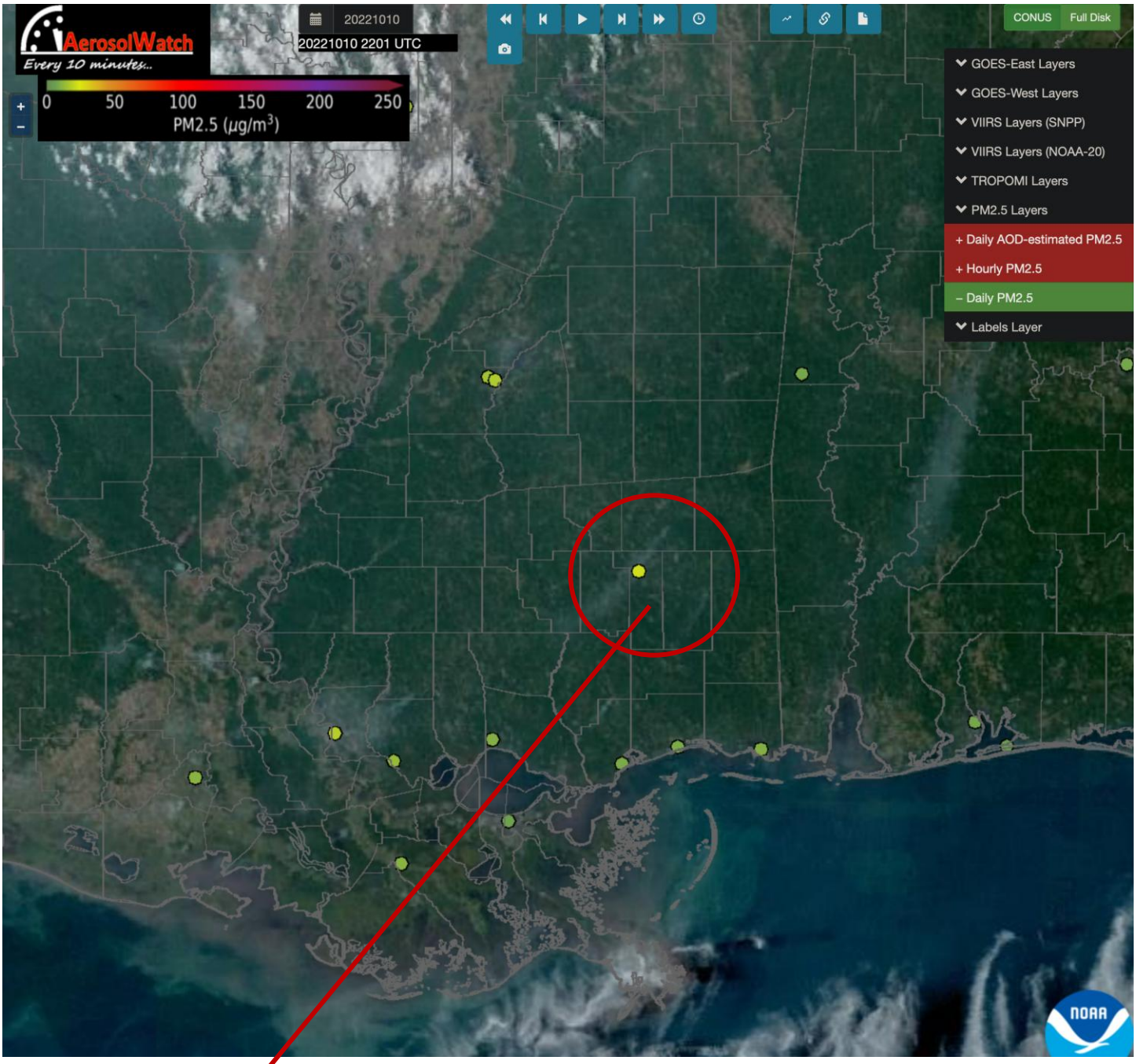
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

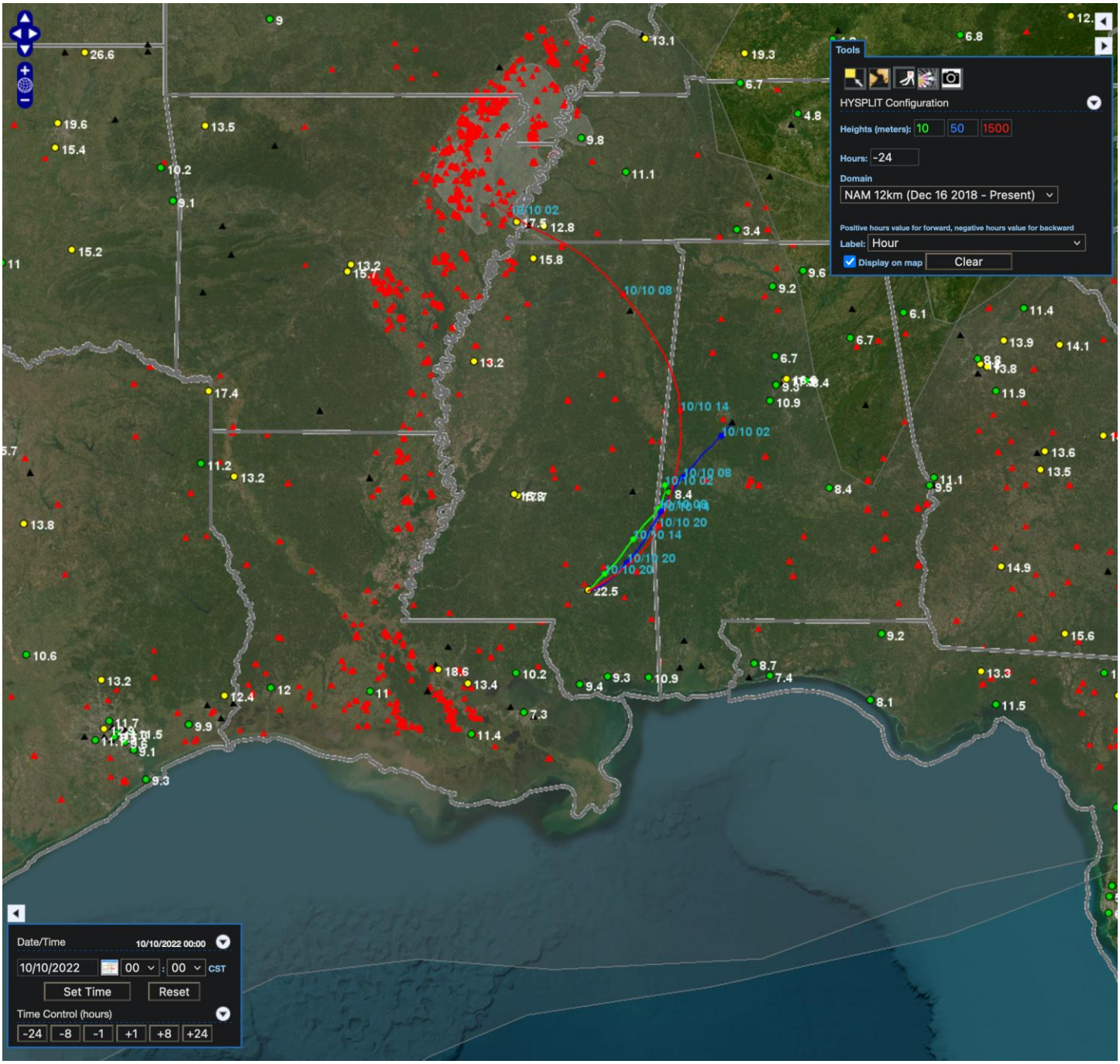
Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2022/2022J101636.html) narrative dated October 10th, 2021, at 1640Z (corresponding to October 10th, 2023, at 11:40 AM CDT). The narrative describes the smoke situation, highlighting how large area of smoke is due to the widespread agricultural burning across much of the Mississippi Valley, with additional prescribed burning activity throughout the southeastern United States of the southeastern U.S, elevating PM2.5 values.



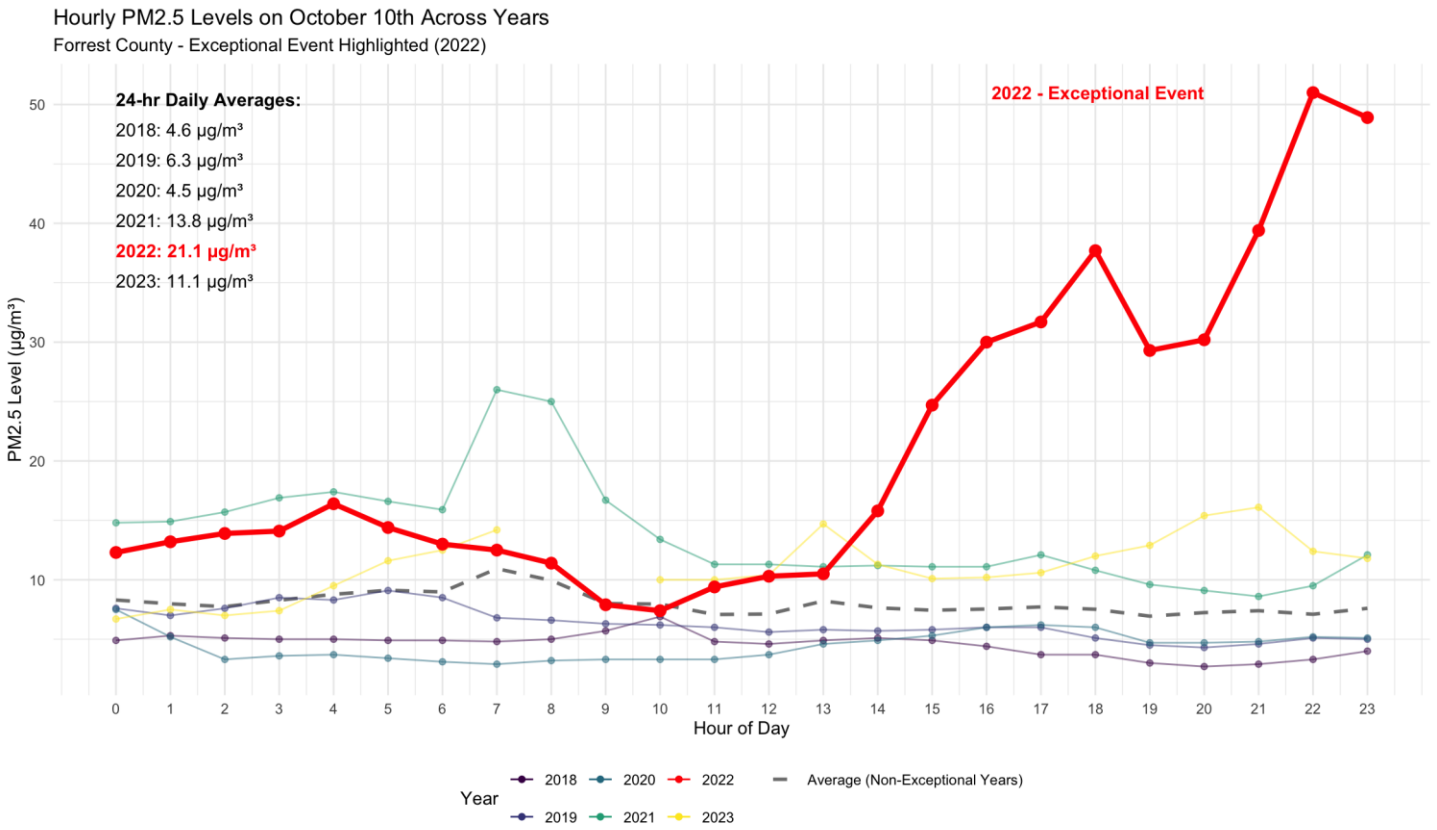
GOES True color imagery at 2201UTC (17:01CDT) showing smoke plume from prescribed fire in DeSoto National Forest affecting downwind Hattiesburg monitor as smoke was caught up in northeasterly wind flow.



24 Hour back trajectory showing parcel movement at both 10m, 50m, and 1500m levels during time of prescribed fire, moving northeast to southwest, verifying Hattiesburg monitor being affected from prescribed fire to the northeast as the plume moved from northeast to southwest.

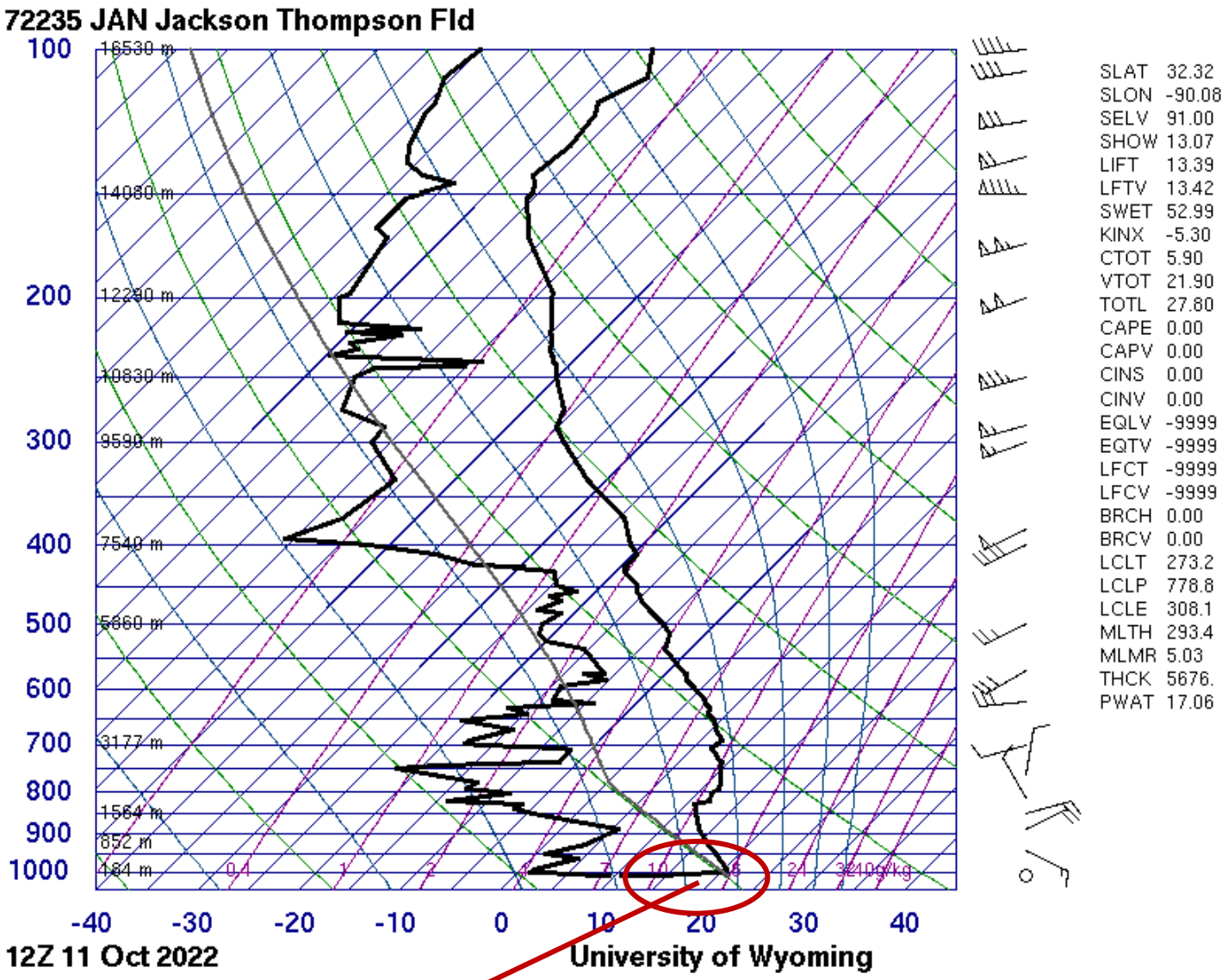
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	10/10/22	14.2	15.1	15.8	16	18.3	16.3	14.9	14.4	12.3	8.8	8.3	10.3	11.2	11.4	16.7	25.6	30.9	32.6	38.6	31.2	32.1	41.3	52.9	50.8	22.5	52.9

Hourly values from AirNowTech show that at the Hattiesburg monitor, PM2.5 values were in the teens during the morning. During the afternoon into late evening, values rapidly increased as the aforementioned smoke plume from the prescribed fire northeast of the monitor moved into the area, resulting in a PM2.5 daily average of 22.5 $\mu g/m^3$.

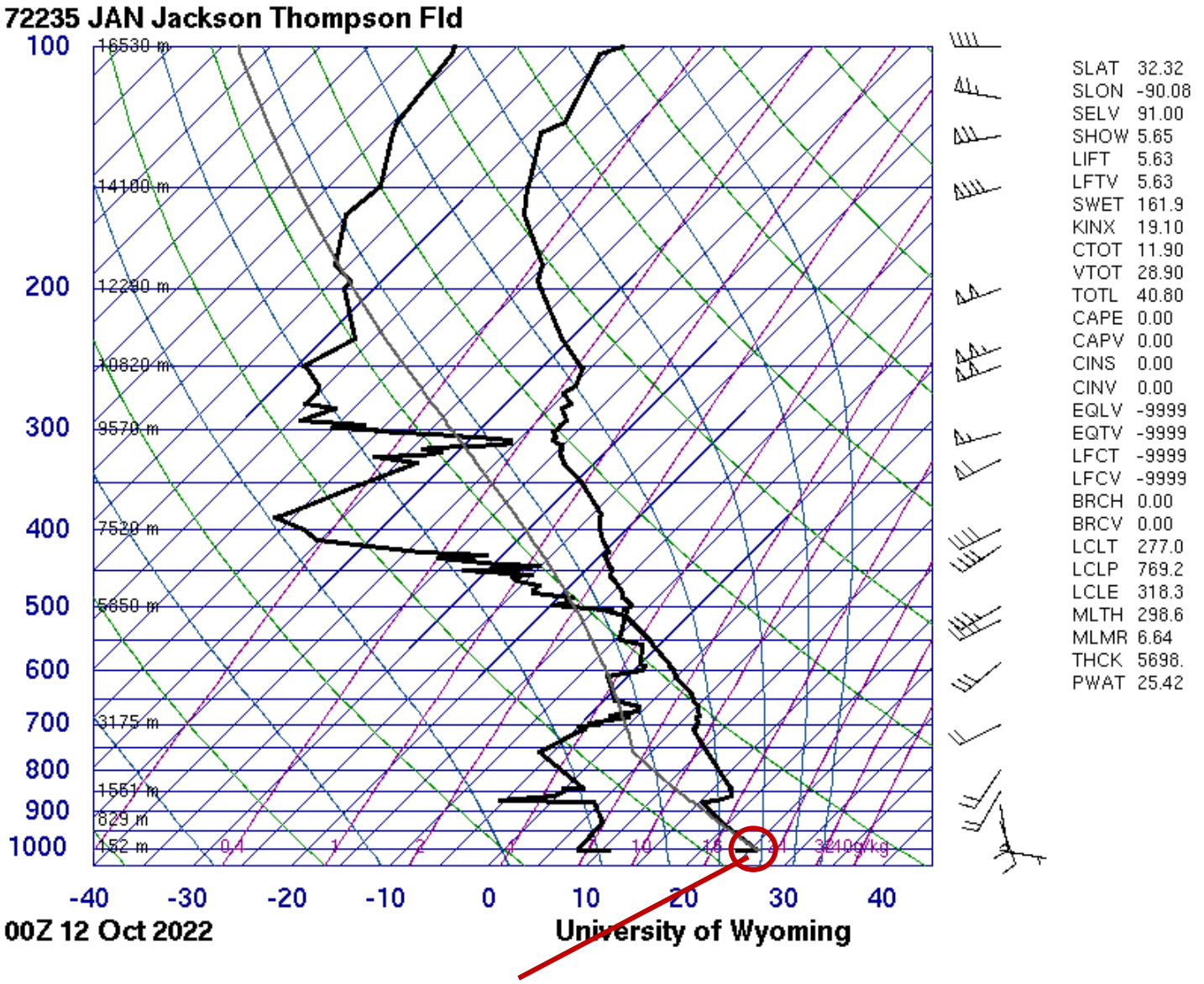


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting the higher values in 2022 compared to the average of non-exceptional years, especially during the late afternoon into the evening time and overnight, thanks in large part to prescribed fire smoke that was directly to the northeast, impacting the Hattiesburg monitor.

October 11th: High PM2.5 values from the previous day carried over into the morning hours on the 11th due to calm conditions and a strong surface nocturnal inversion, trapping smoke close to the surface over the Hattiesburg monitor. This was especially evident during the early morning hours, with a one-hour maximum of 55.7 µg/m^3 recorded at 5 AM. Strong surface high pressure limited mixing during the day, continuing stagnant conditions and keeping PM2.5 values elevated. As mixing heights fell in the late evening, PM2.5 values increased with the development of a low-level nocturnal inversion at sunset.



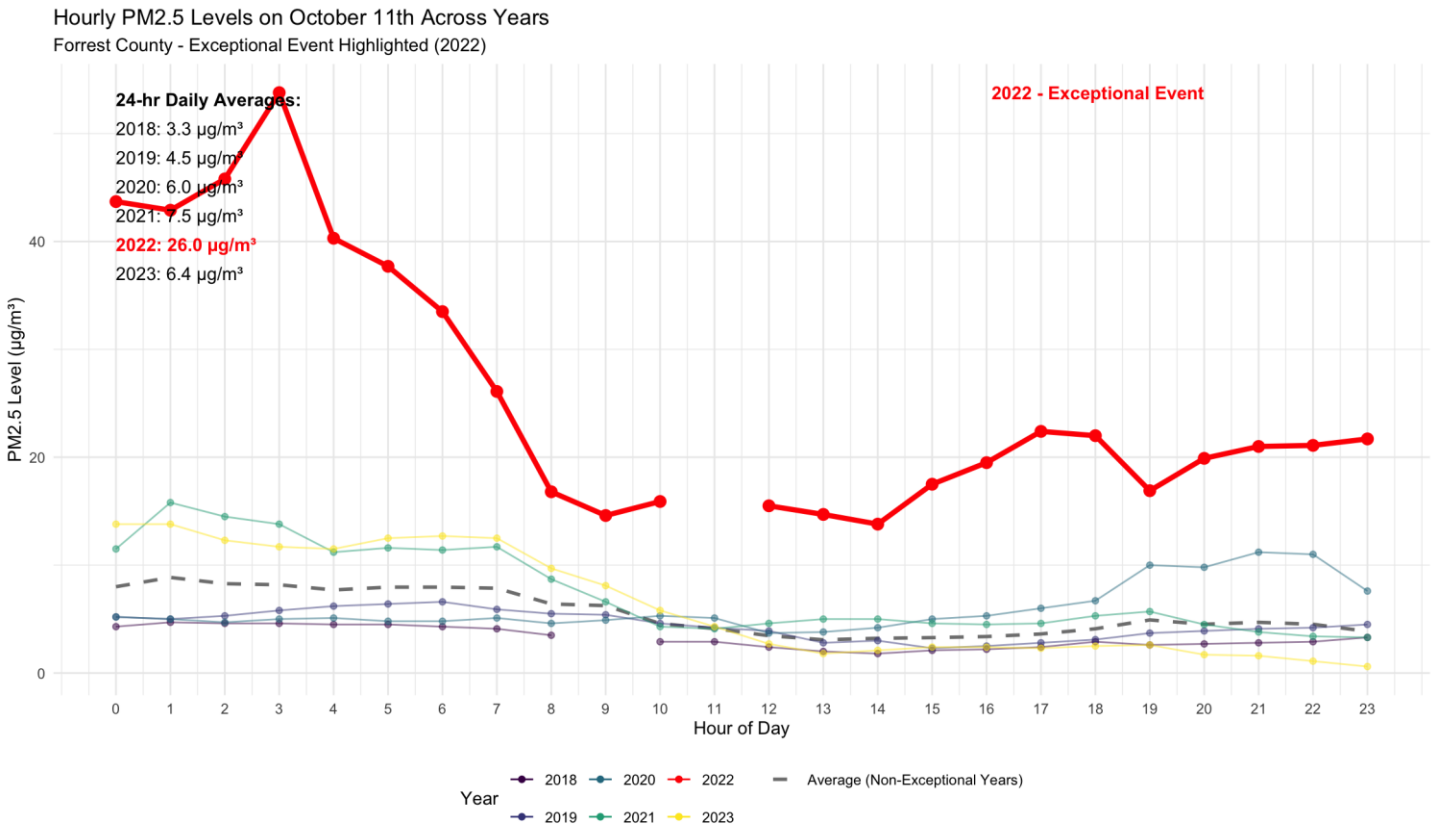
12Z sounding on the morning of October 11th, showing surface nocturnal inversion trapping leftover smoke from previous days prescribed fire at the surface, keeping PM2.5 values elevated overnight.



00Z sounding the evening of October 11th, showing development of low-level nocturnal inversion at sunset, once again, trapping smoke near the surface, increasing PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	10/11/22	45.6	44.8	47.7	55.7	42.2	39.6	35.4	28	17.7	15.5	16.8	12.7	16.4	15.6	14.7	18.4	20.4	23.3	22.9	17.8	20.8	21.9	23	23.6	27.3	55.7

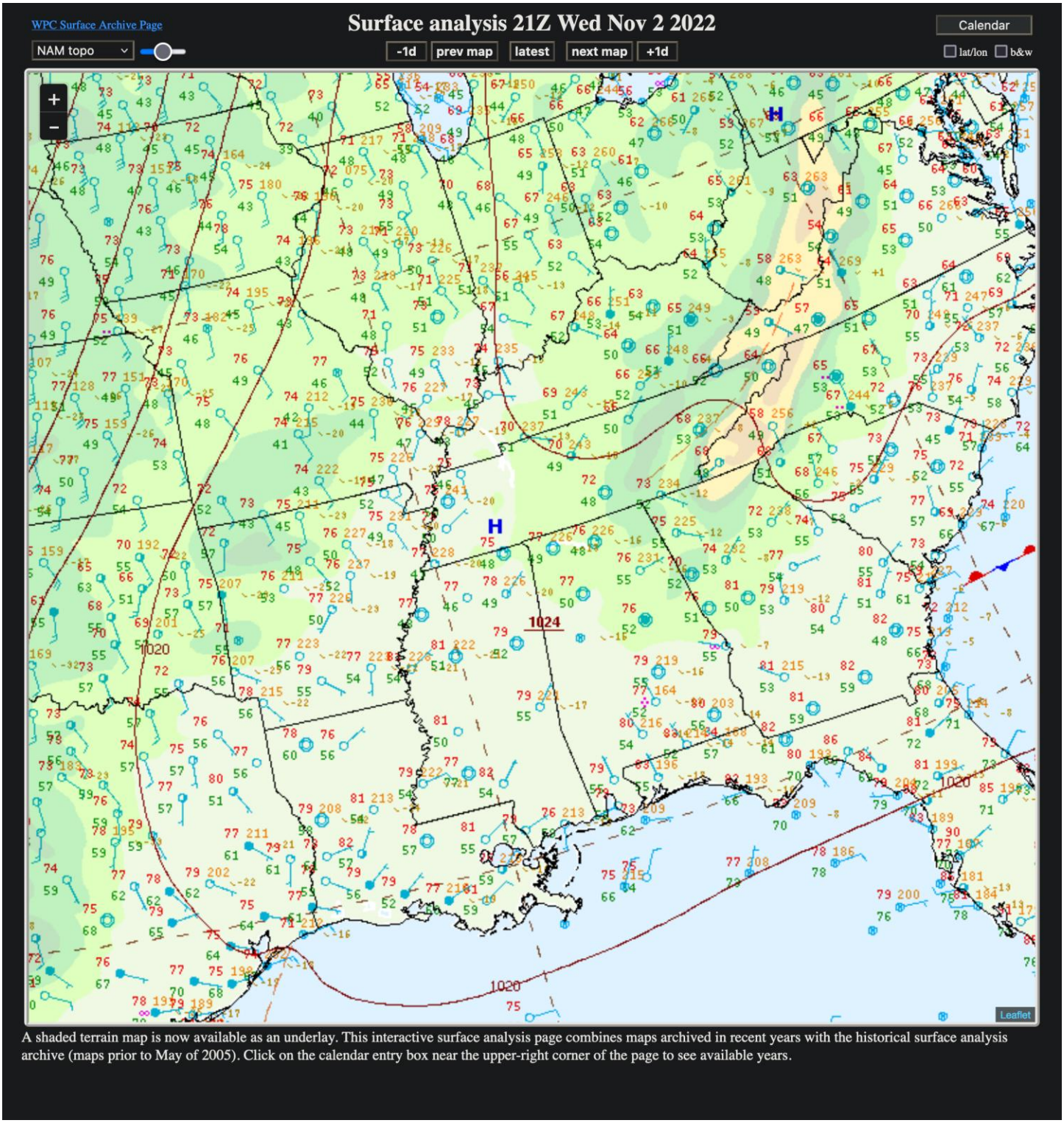
Hourly PM2.5 data in the figure above show high PM2.5 values in the early morning and late evening due to smoke trapping by low-level nocturnal inversions. Although mixing heights increased during peak heating hours, strong high pressure, light to calm winds, and stagnant conditions kept PM2.5 levels elevated in the teens during the afternoon. Values climbed once again into the twenties near and after sunset as mixing heights diminished and a nocturnal inversion redeveloped. The 24-hour daily average for this day was 27.3 µg/m^3.



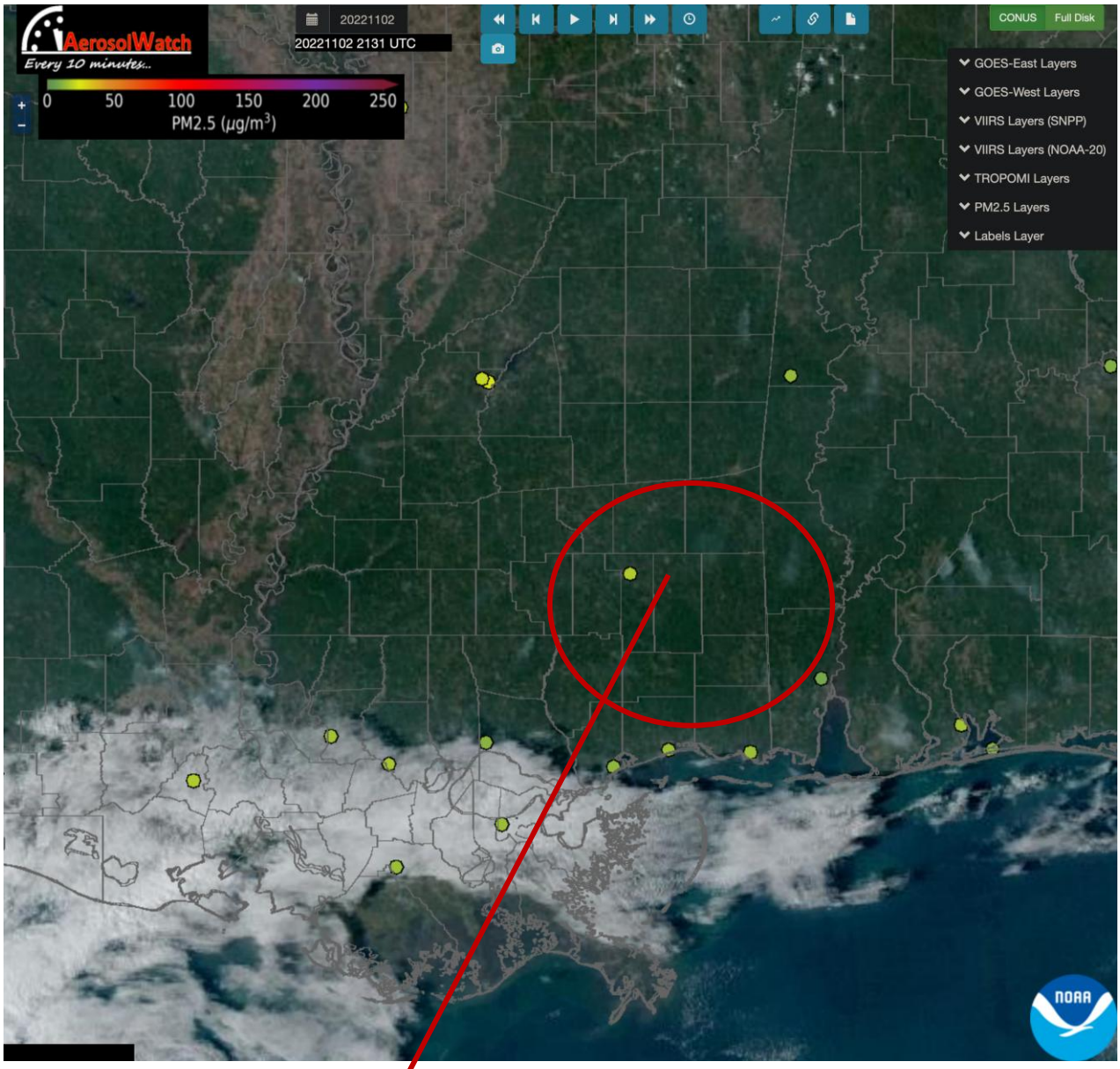
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting the higher values in 2022 compared to the average of non-exceptional years, especially during the early morning hours, thanks in large part to previous days prescribed fire smoke that became trapped underneath strong surface nocturnal inversion, impacting the Hattiesburg monitor.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
November 2 and 3, 2022	Prescribed Fire	RM	28-035-0004	Hattiesburg	15.5 & 18.7	2, 3	Prescribed Fire an Exceptional Event Demonstration: November 3 2022

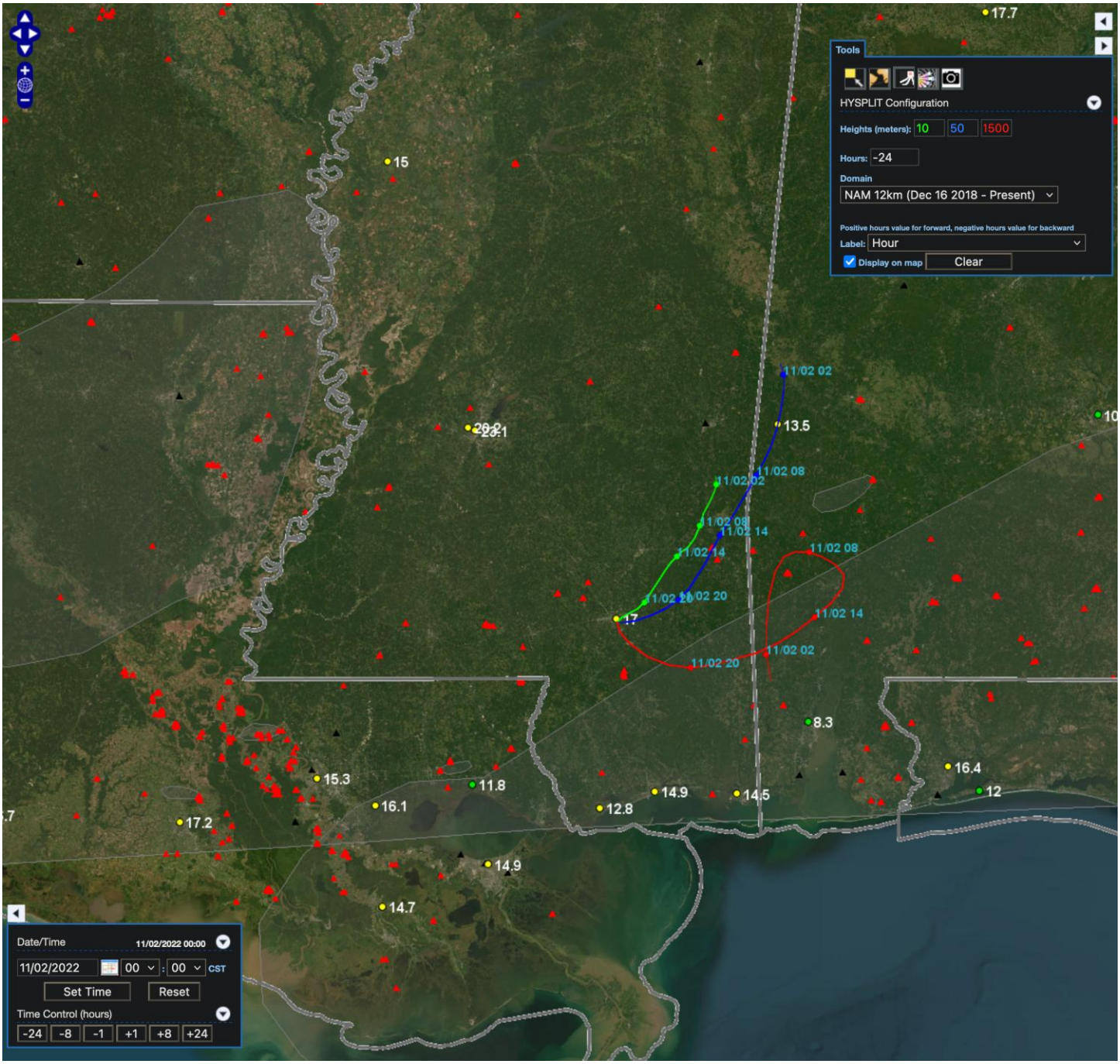
Synopsis: A cold front moved through a few days prior on October 31st, and in its wake, high pressure settled over the southeastern United States from November 2nd through 4th, leading to very stable conditions. Prescribed burning was occurring throughout the southeastern United States on November 2nd and 3rd. Additionally, there were prescribed fires in close proximity to the Hattiesburg monitor on these days. Smoke plumes from fires located east and northeast of the monitor were blowing toward the Hattiesburg monitor on both days, increasing PM2.5 values.



Surface map taken 21UTC Wednesday, November 2nd (4PM CDT), showing high pressure across the Tennessee River Valley, providing light northeasterly flow over southern Mississippi. This flow helped direct smoke plumes from fires northeast of the Hattiesburg monitor southwest toward the monitoring site, elevating PM2.5 values.



GOES True Color image taken on November 2nd, 2022, at 2131UTC showing prescribed fires located to east and northeast of the Hattiesburg monitor on November the 2nd, as smoke plumes were drifting towards the Hattiesburg monitor.

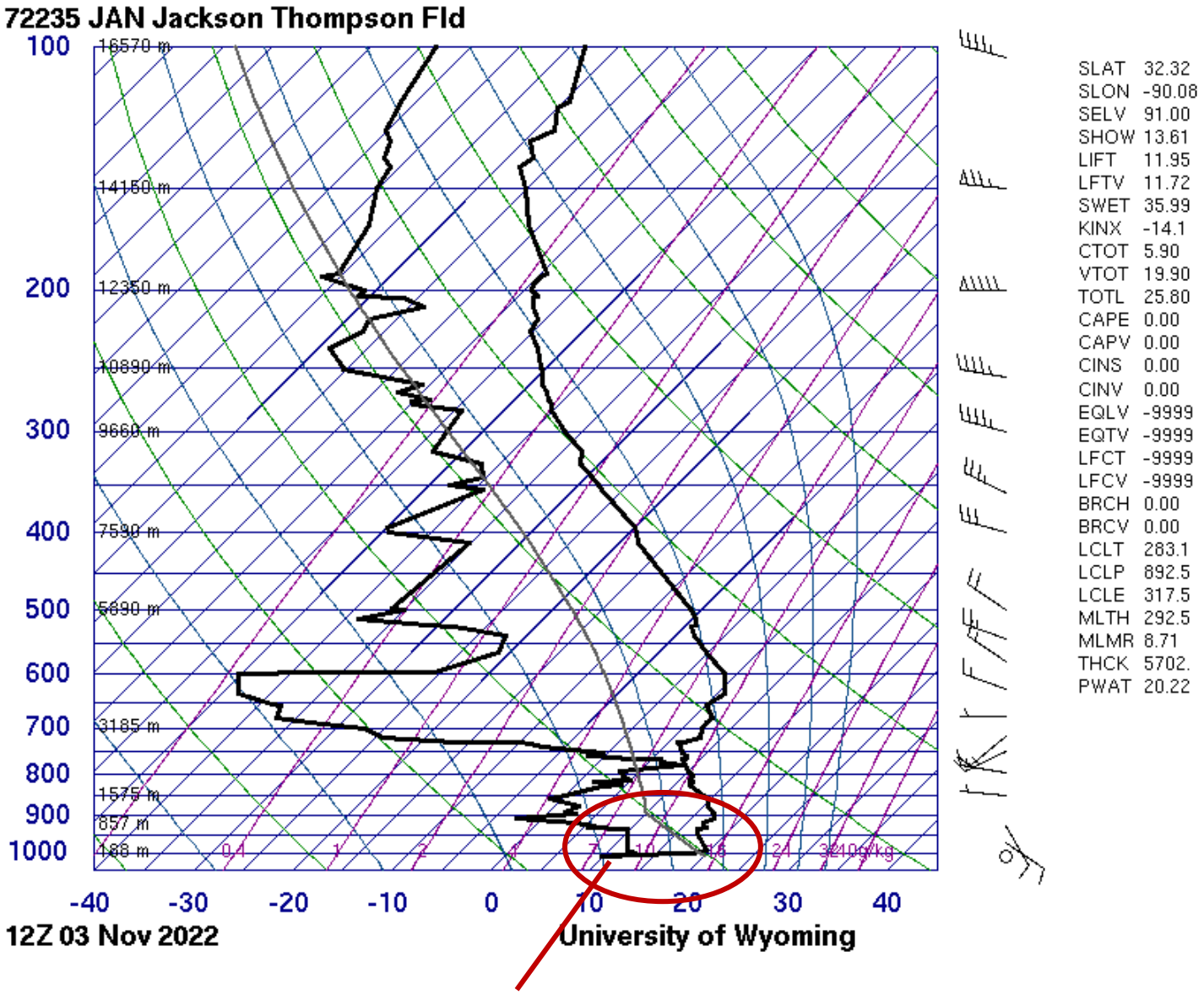


24-Hour back trajectory for November 2nd showing lowest 10m and 50m parcels moving from northeast to southwest, carrying smoke to the Hattiesburg monitor, from prescribed burning directly to the northeast.

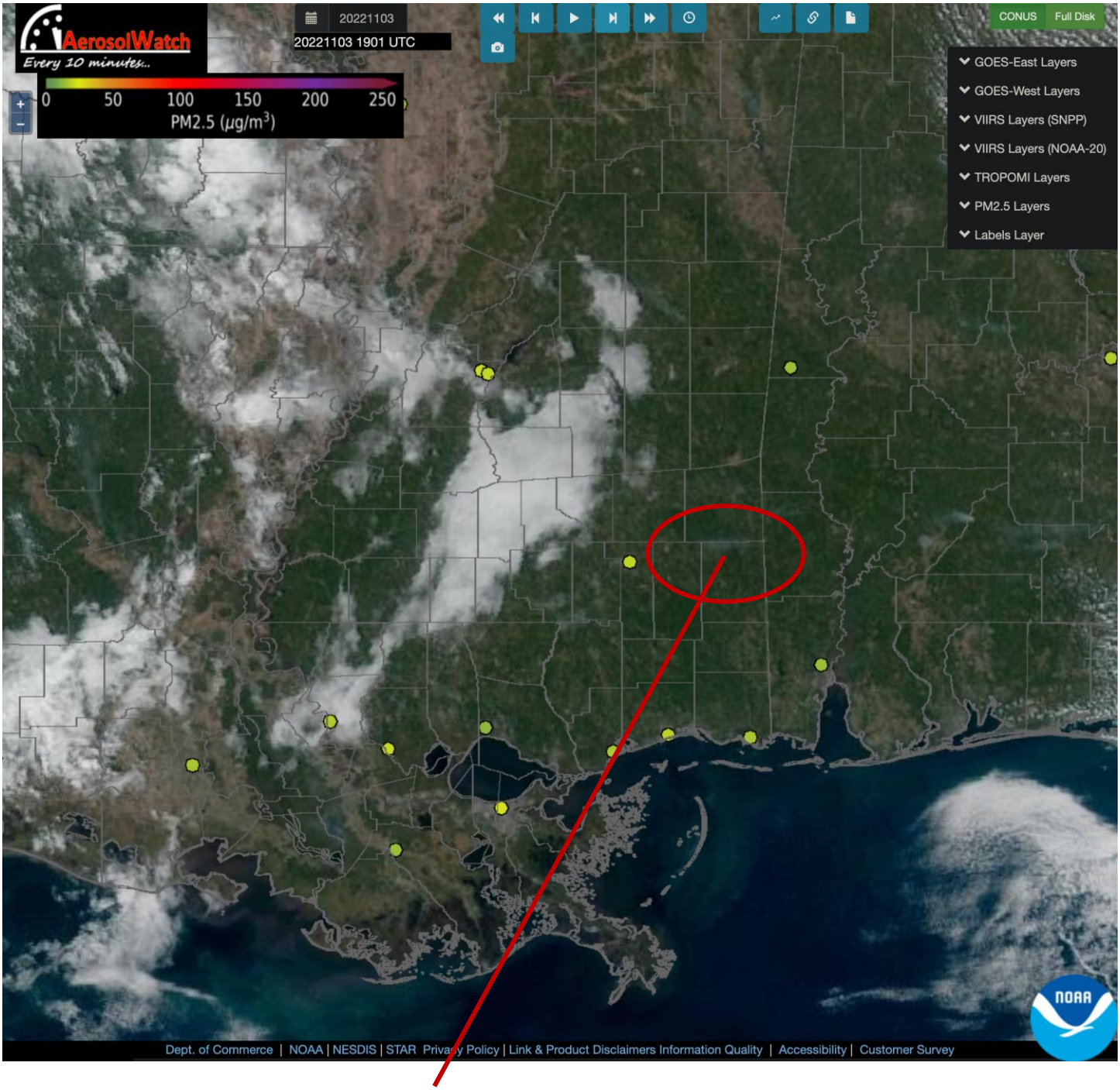
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	11/02/22	18.8	18.5	18.1	18.8	18.6	19.5	20.6	20	18.7	16.6	13.8	13.5	13.2	12.2	11.8	12	12.3	15.6	20.1	16.8	17.9	19.4	19	22.4	17.01	22.4

Hourly PM2.5 values on November 2nd ranged in the teens and twenties, with a 24-hour average of 17.01 µg/m^3, thanks in part to smoke from prescribed fires affecting the PM2.5 monitor.

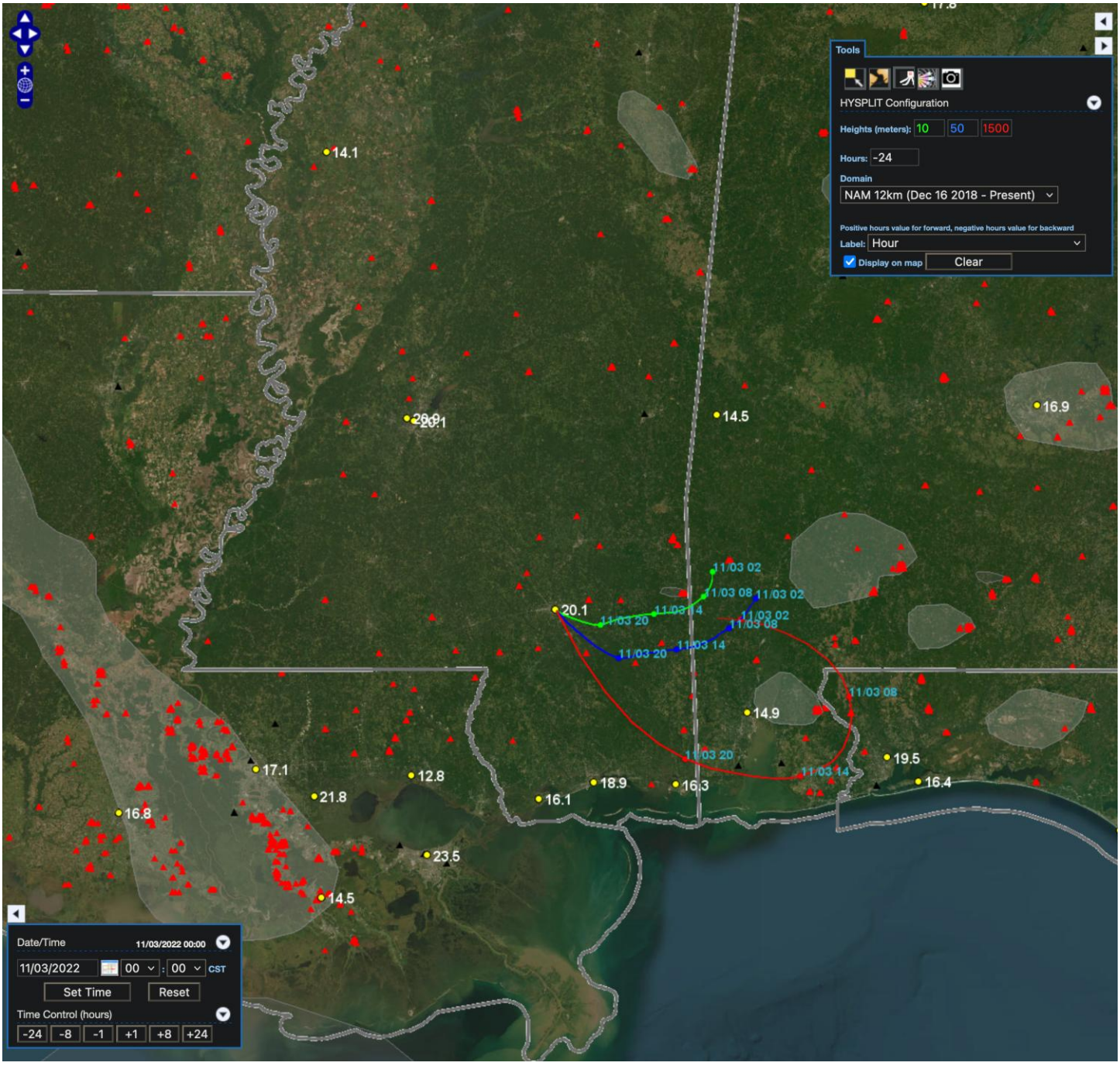
November 3rd, prescribed fires to the east, east-northeast of the Hattiesburg monitor continued to burn, as easterly winds carried smoke from the fires towards the Hattiesburg monitor.



Morning sounding on November 3rd, 2022, shows very strong low level nocturnal inversion that set up overnight trapping smoke from previous days prescribed fires, keeping PM2.5 elevated overnight into the 20's.



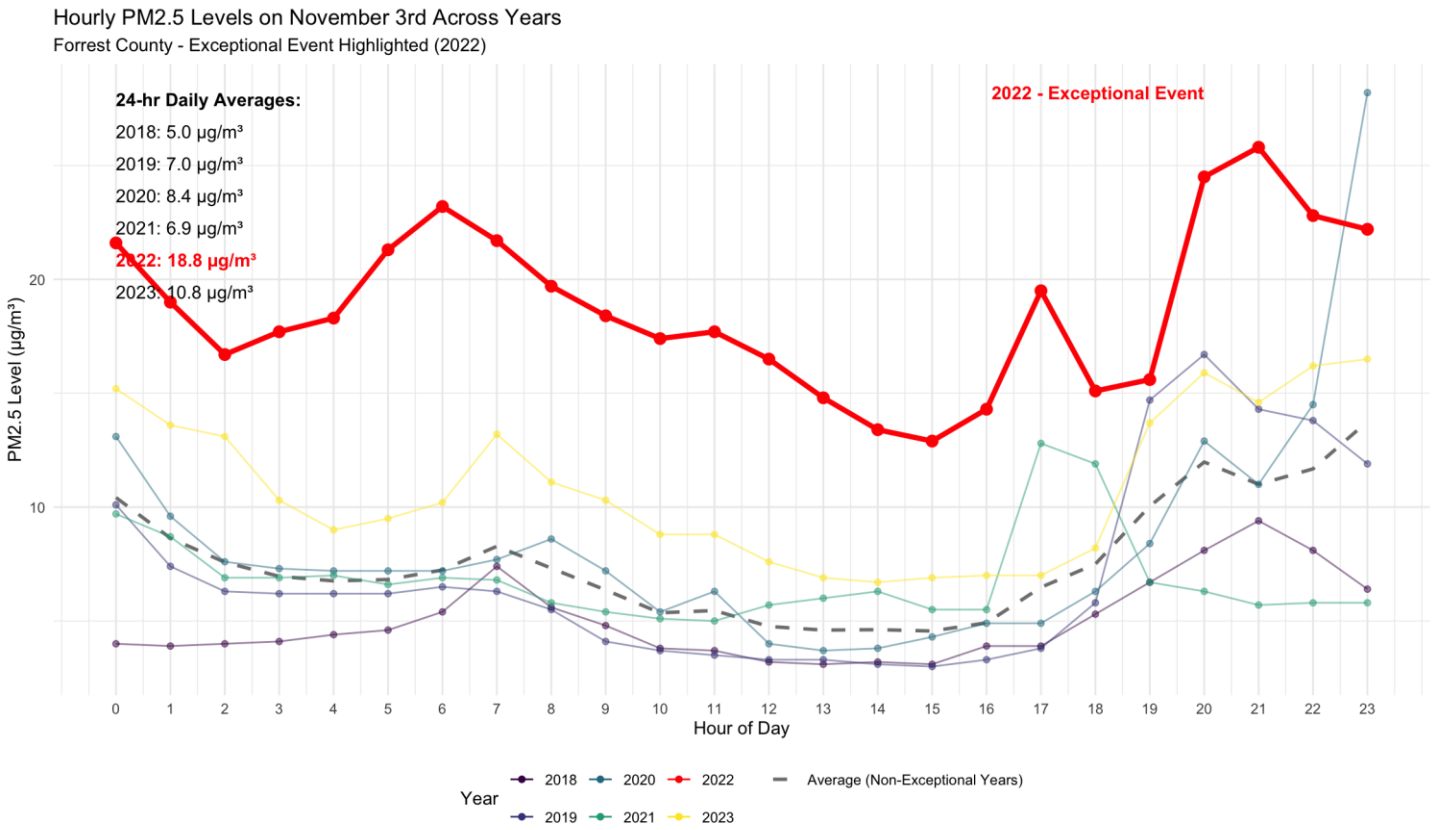
GOES East True Color image taken on November 3rd, 2022, at 1901UTC, showing, prescribed fires burning to the east of the Hattiesburg monitor, as easterly winds, are blowing smoke towards the Hattiesburg monitor.



24-Hour back trajectory for November 3rd, showing lowest 10m and 50m parcels moving from east to west, carrying smoke to the Hattiesburg monitor, from prescribed burning directly to the east.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	11/03/22	23.5	20.9	18.6	19.6	20.2	23.2	25.1	23.6	20.6	19.3	18.3	18.6	17.4	15.7	14.3	13.8	15.2	20.4	16	17.5	26.4	27.7	24.7	24.1	20.2	27.7

Hourly PM2.5 values on November 3rd ranged in the teens and twenties, with a 24-hour average of 20.2 µg/m^3. These elevated levels were due to smoke from prescribed fires located east of the monitor blowing westward toward the Hattiesburg site

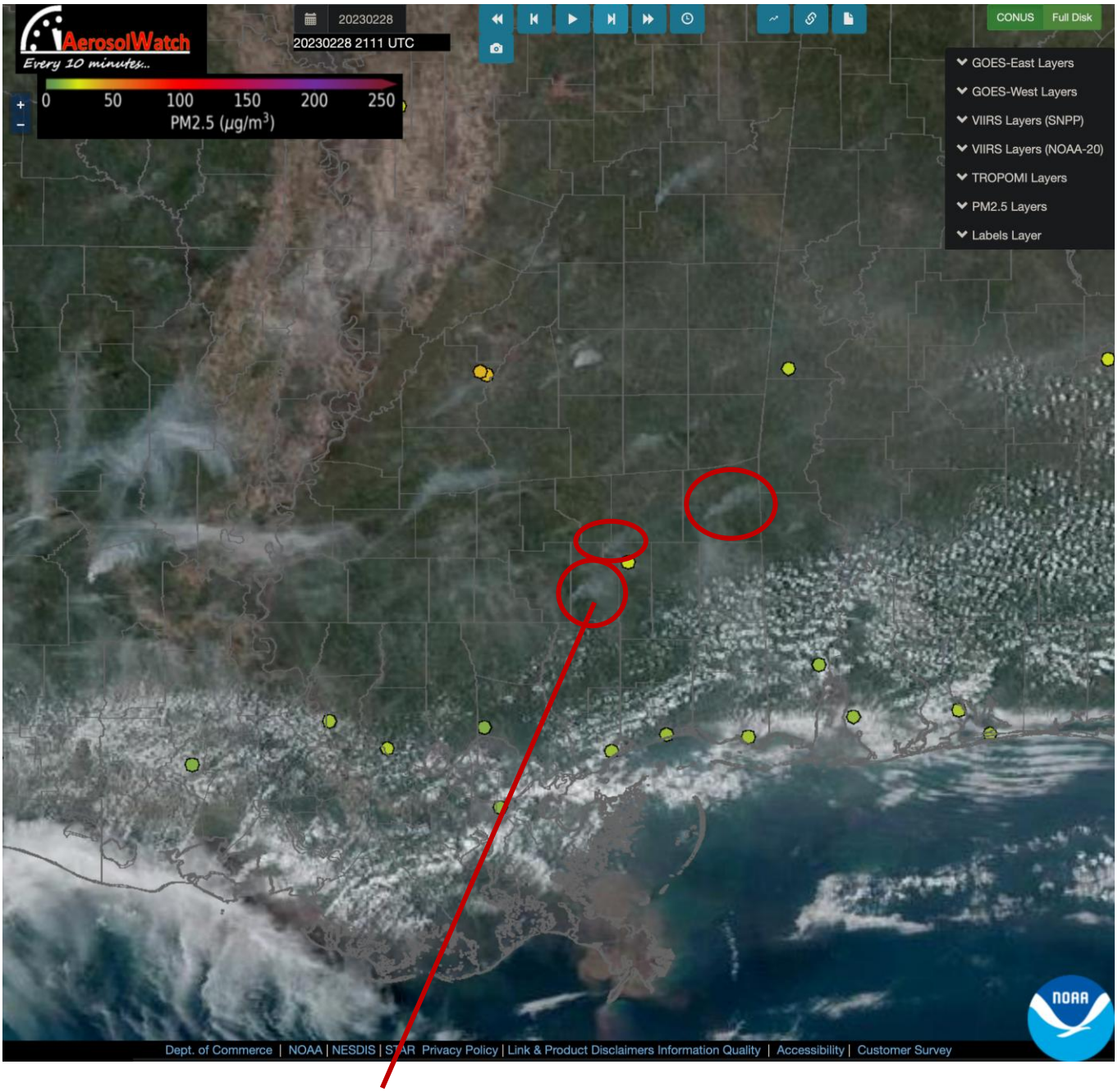


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting higher values in 2022 compared to the average of non-exceptional years. The elevated levels were particularly notable during the early morning and late evening hours on November 3rd, when prescribed fire smoke from both previous and current days became trapped beneath a strong nocturnal surface inversion. Easterly winds during the day further contributed to the impact by directing smoke from the prescribed fires located to the east of the Hattiesburg monitor, toward the Hattiesburg monitor.

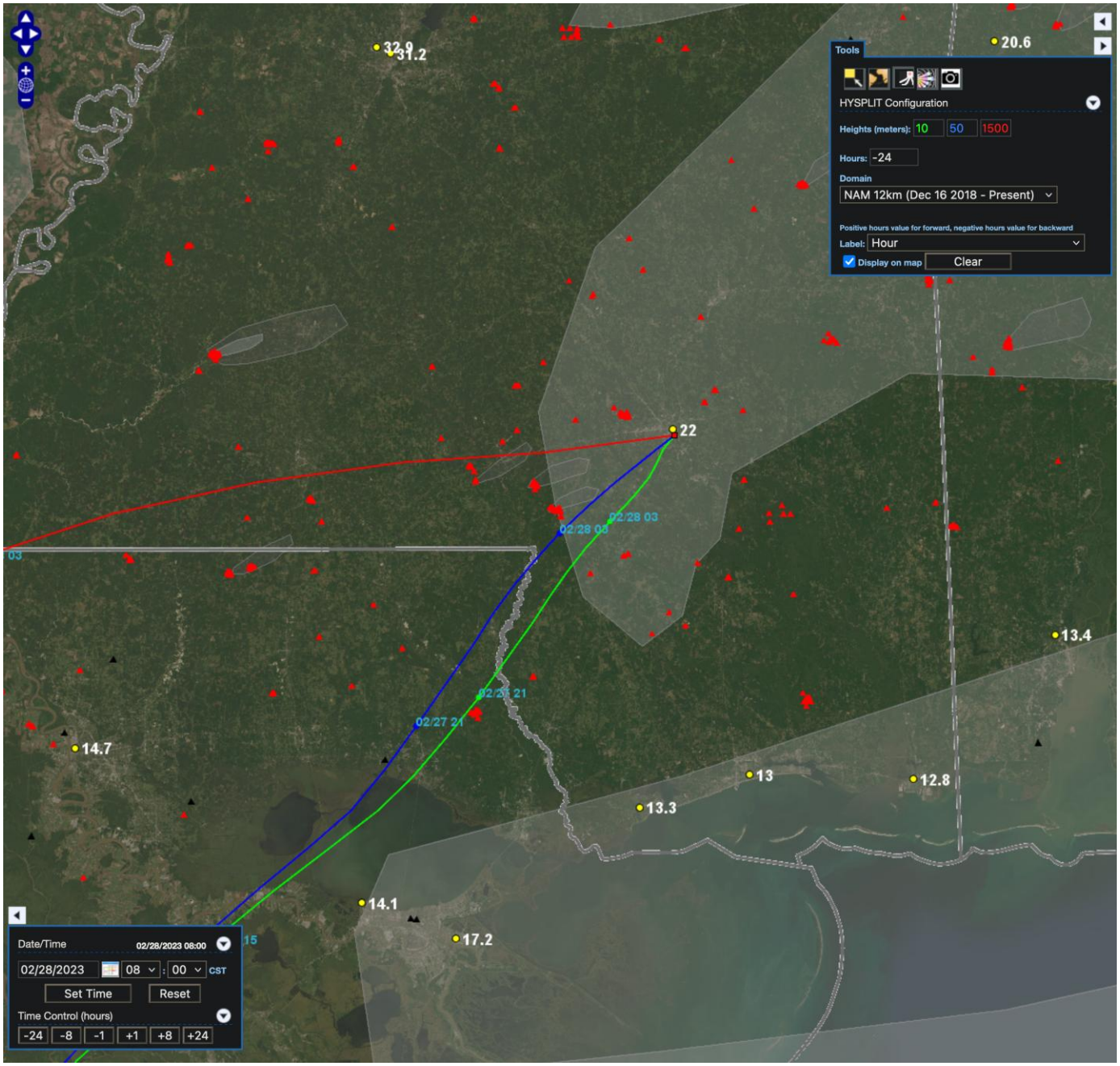
2023 Exceptional Events

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
February 28, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	20.0	2	Prescribed Fire an Exceptional Event Demonstration: February 28, 2023

Synopsis: PM2.5 was elevated on this particular day due to ongoing prescribed fires surrounding the Hattiesburg monitor. Fires were located to the southwest, north/northwest, and northeast of the site. Southwest surface winds transported smoke from the southwestern fires toward the monitor, increasing PM2.5 values from mid-morning through the evening hours.



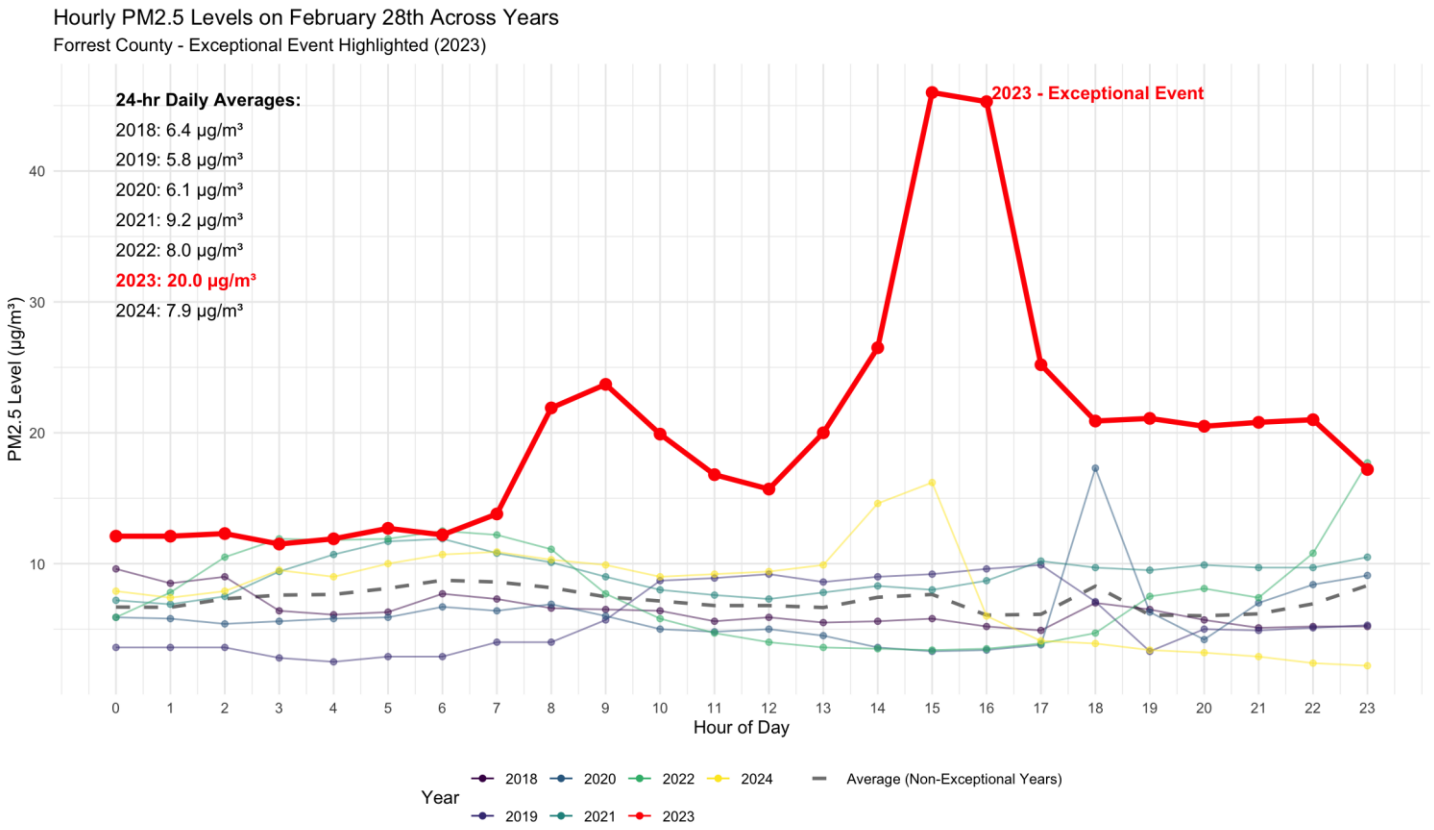
GOES East True Color image taken on February 28th, 2023, at 2111UTC, showing smoke plumes dotting the landscape from prescribed fires in and around the Hattiesburg monitor. Note how smoke plumes are moving southwest to northeast, as the plume is caught up in southwesterly winds at the surface.



24-Hour back trajectory for February 28th, showing lowest 10m and 50m parcels moving from southwest to northeast, carrying smoke to the Hattiesburg monitor, from prescribed burning directly to the southwest.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	02/28/23	13	13	13.2	13.4	13.8	14.6	14.1	14.7	22.8	24.6	20.8	17.7	16.6	20.9	27.4	46.9	46.2	26.1	21.8	22	21.4	21.7	21.9	18.1	21.11	46.9

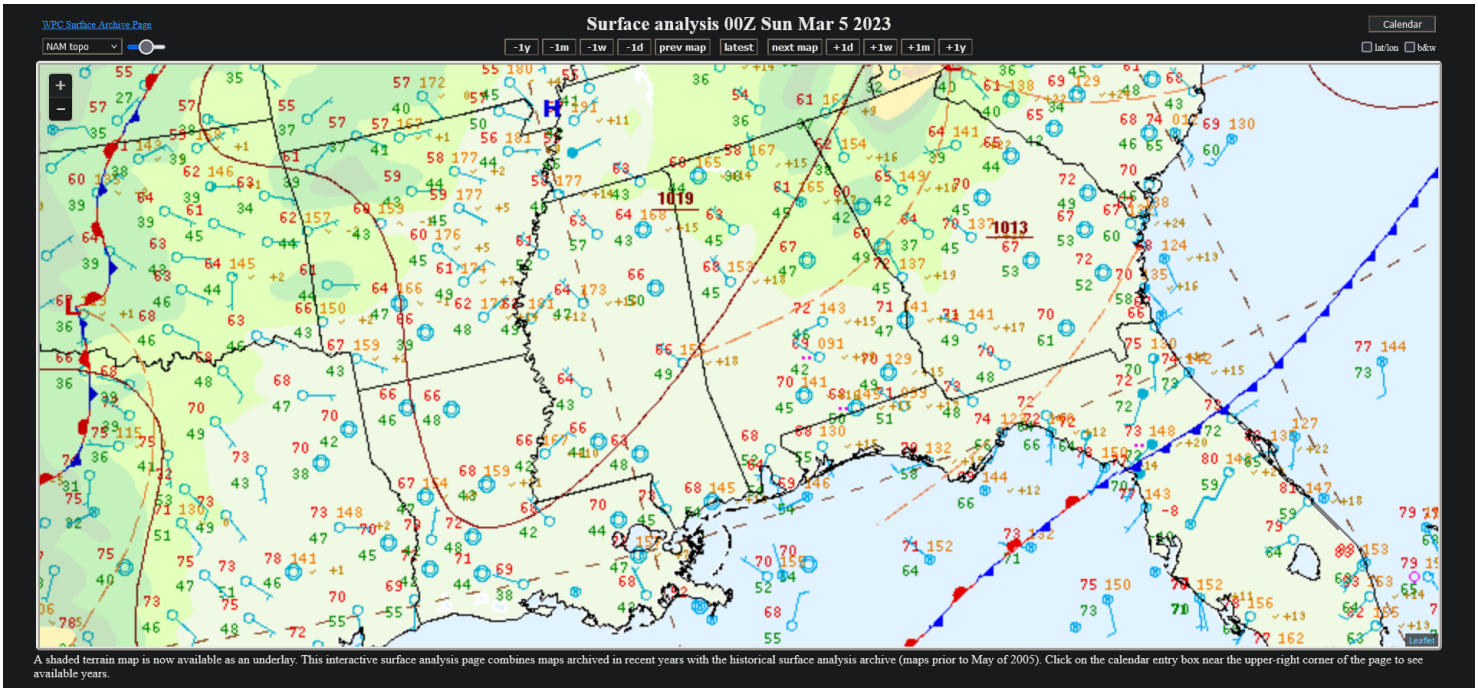
Hourly PM2.5 Values on February 28th, shown in the table above, shows hourly PM2.5 values in the teens and twenties, in the morning going into the early afternoon, than PM2.5 values spike up into the 40's ug/^3m range when impacted by smoke plumes from the fires to the monitor southwest, with a 24-HR average of 21.11ug/m^3.



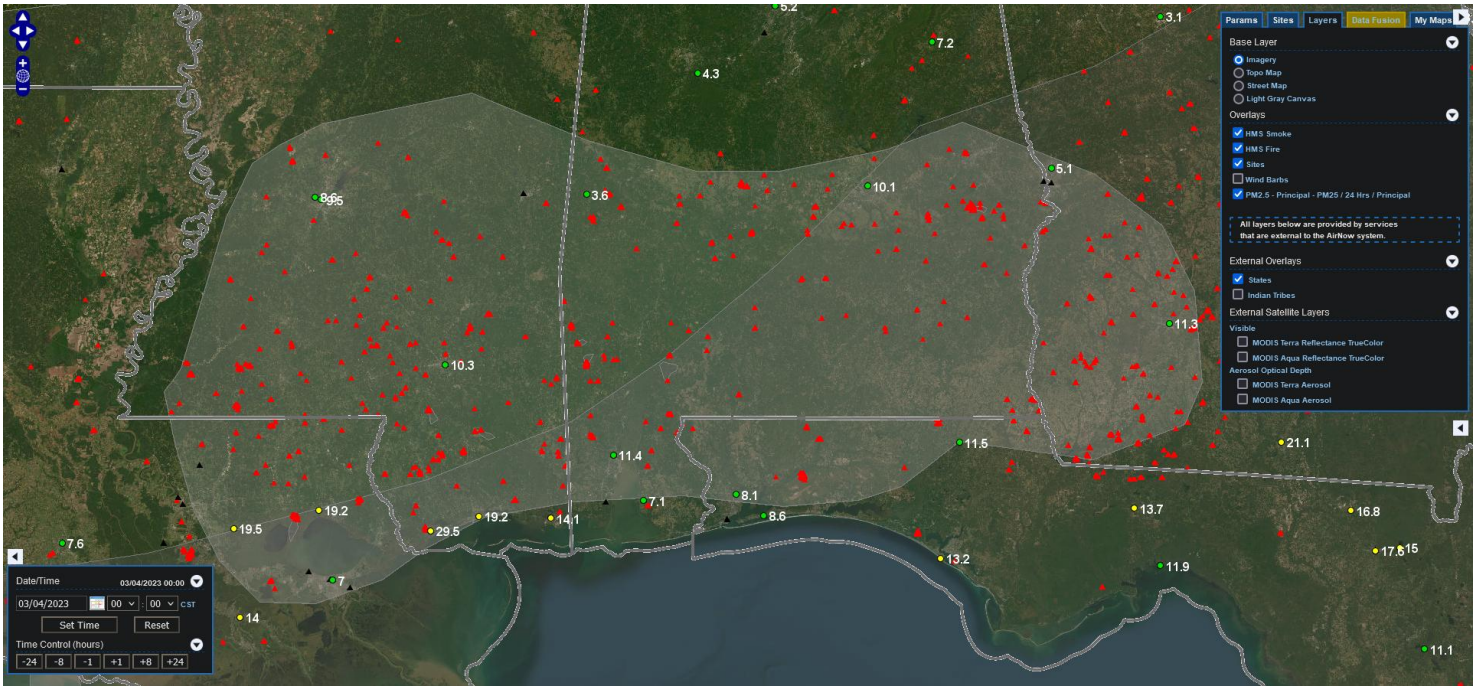
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. Notice the elevated hourly spike of PM2.5 values in the late afternoon going into the evening hours as smoke from the fires located to the southwest were directly affecting the Hattiesburg monitor.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
March 5, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	20.2	2	Prescribed Fire an Exceptional Event Demonstration: March 5, 2023

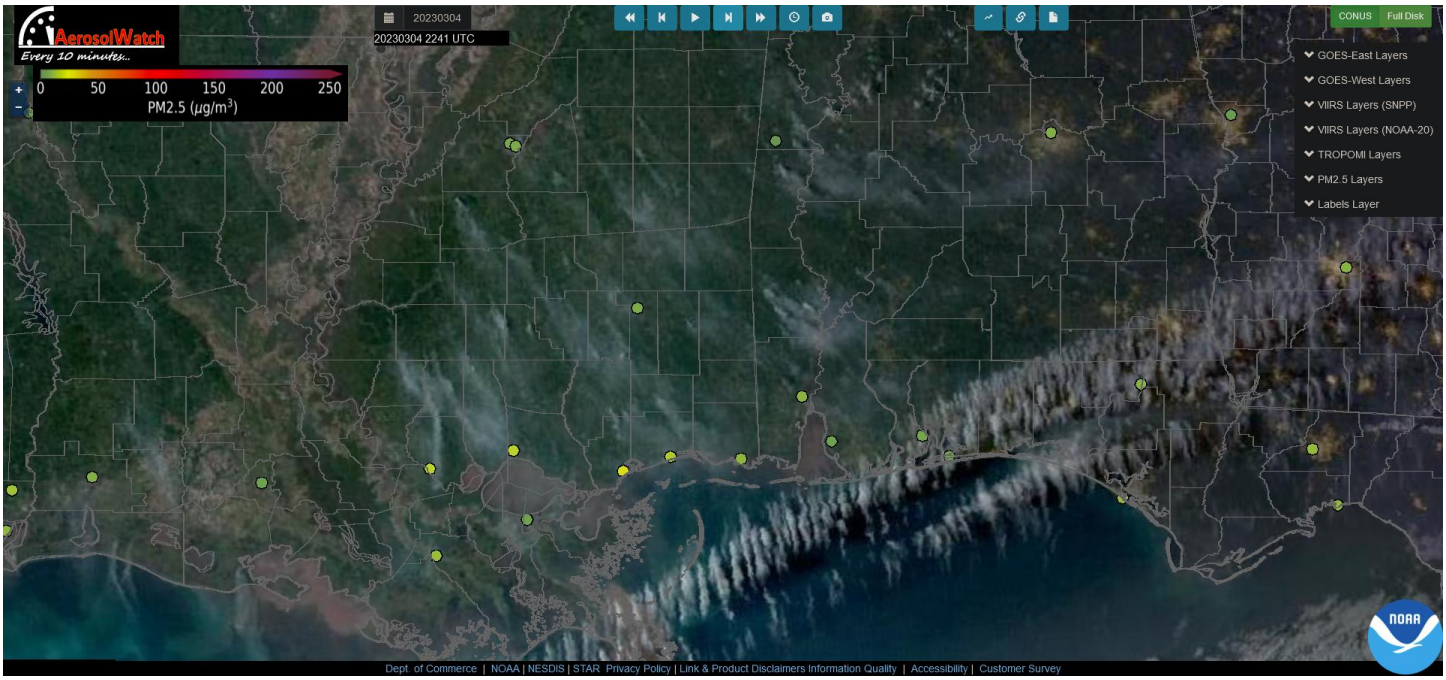
Synopsis: Numerous prescribed fires were burning across the Gulf States both on the 4th and the 5th of March 2023. Surface high pressure was dominating the southeast in wake of a cold front that passed through early on March the 3rd, leading to light winds with very stable conditions at the surface for both the 4th and the 5th.



Surface analysis on 00z, Sunday, March 5th, 2023 (7PM on March 4th, CDT), showing calm winds at the surface at many of the ASOS stations, leading to stagnant conditions while prescribed fires burned during the day on March 4th.



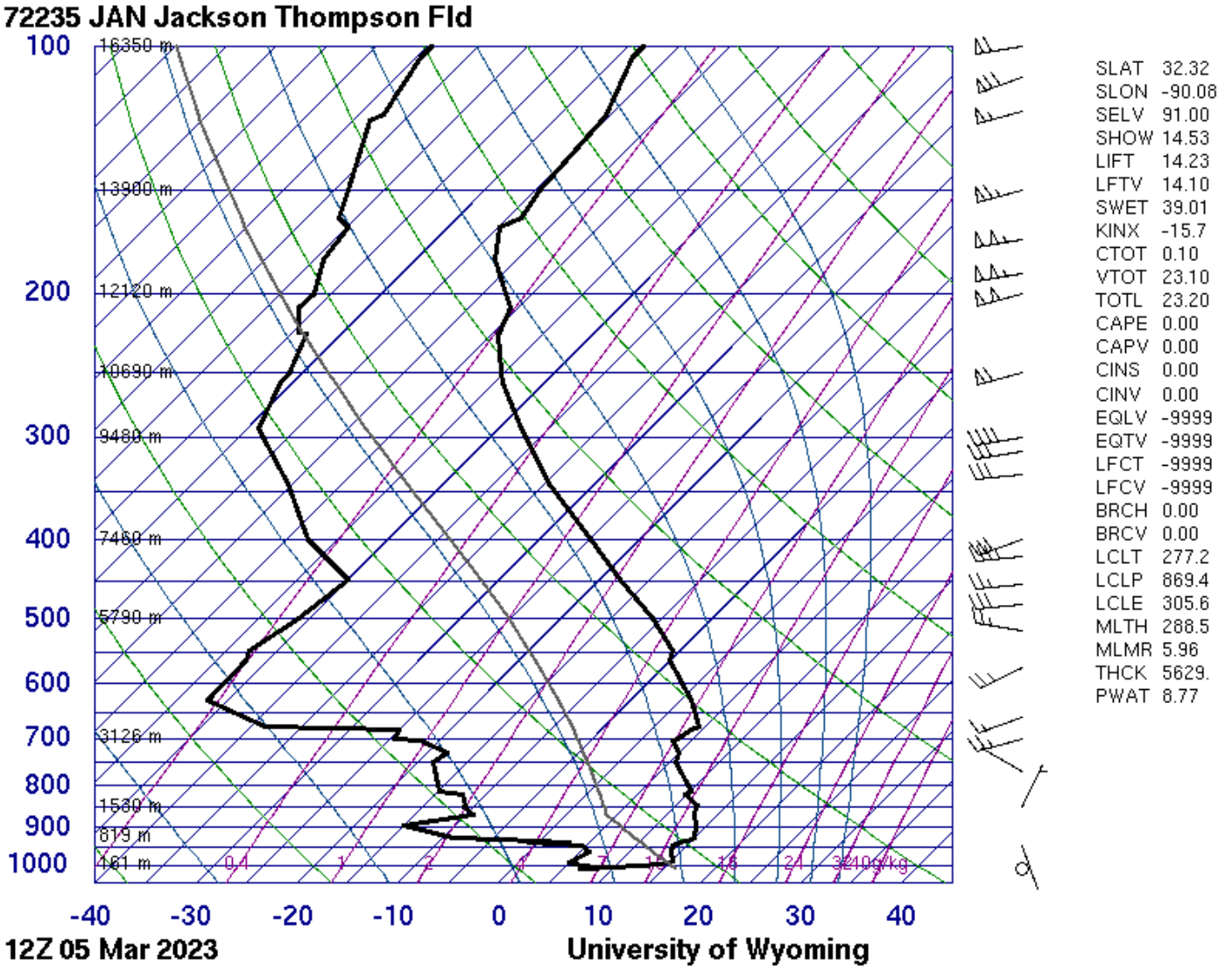
AirNowTech Navigator image above, showing the numerous ongoing prescribed fires in the southeast on March 4, 2023.



GOES East True Color image taken on March 4th, 2023, at 2241UTC, showing smoke plumes dotting the landscape from prescribed fires in and around the Hattiesburg monitor. Smoke plumes are moving northwest to southeast, as the plume(s) are caught up in light northwesterly winds at the surface.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/04/23	5.8	6.1	6.4	6.6	7	7.2	10.2	9	8.6	6.8	6.2	6.4	6.2	6	8.2	7.9	10.6	8.1	11.2	14.8	17.7	25.7	21.2	25.3	10.38	25.7

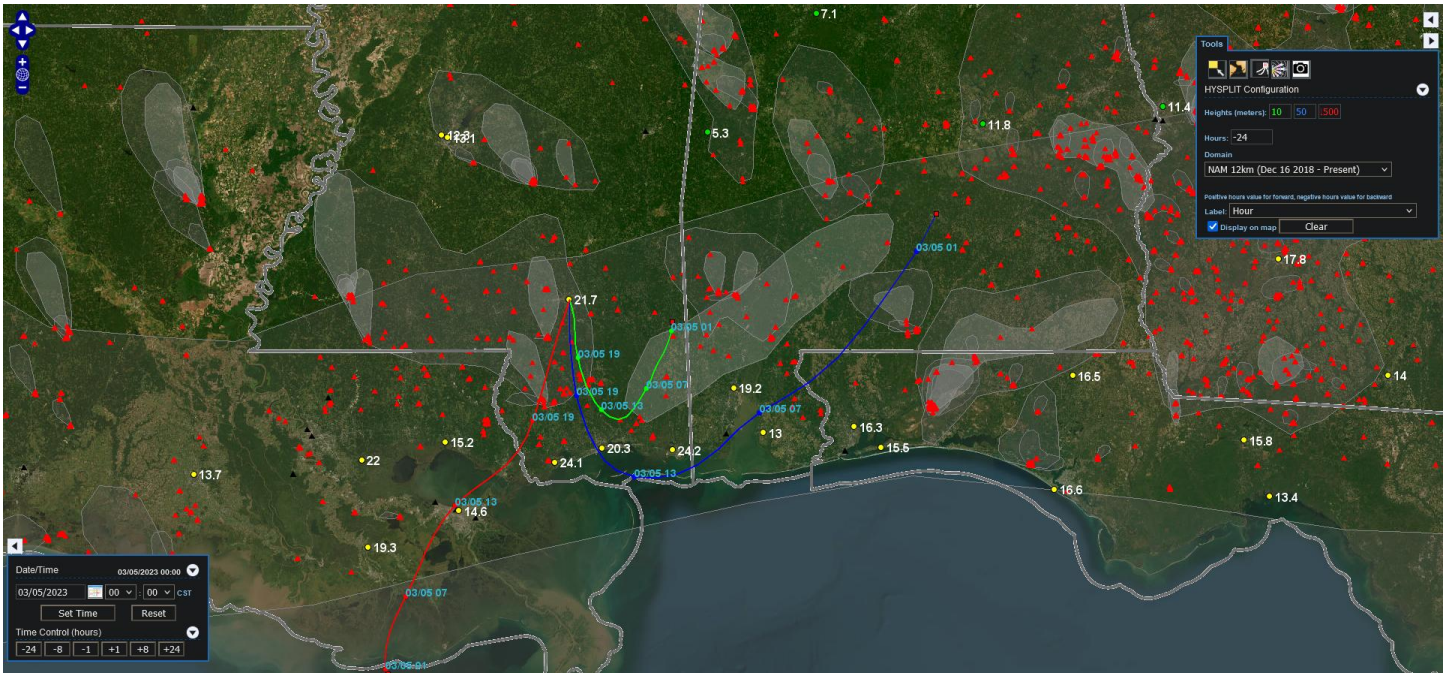
Although the PM2.5 values for the daily average at the Hattiesburg monitor were good for March 4th, hourly PM2.5 values during the late evening, into the overnight hours increased thanks to winds going calm, diminishing mixing heights, and the development of low-level nocturnal inversion just after sunset, trapping smoke near the surface.



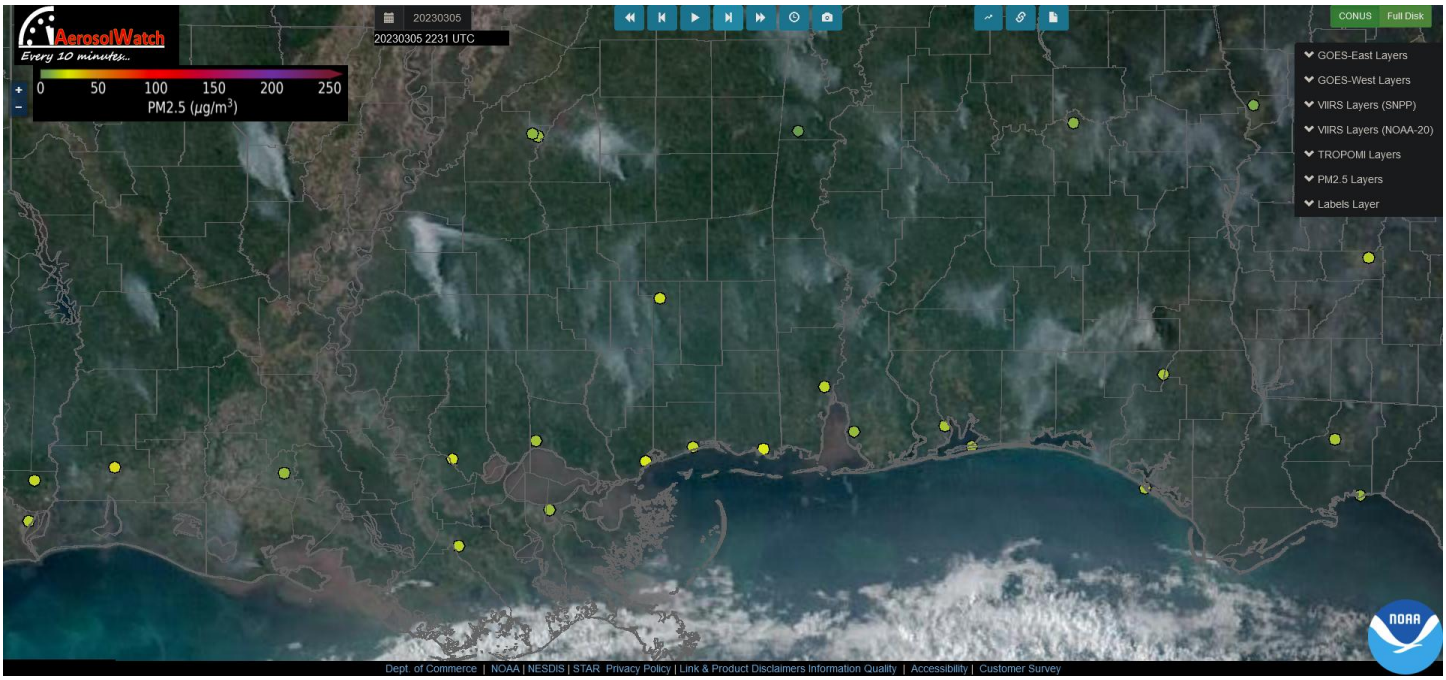
Morning sounding on March 5th, 2023, shows very strong low level nocturnal inversion that set up overnight trapping smoke from previous days prescribed fires, keeping PM2.5 elevated overnight into the 20's with a few hours right at 30ug/m^3.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/05/23	29.6	24.3	28	24.6	30.3	30.8	30	25.8	19.9	8.9	6.7	7.5	10.8	10.7	10.9	10.9	11.6	15.9	28.5	36.3	26	33.5	33.2	30.4	21.71	36.3

Starting on March 5th (an exceptional event day), multiple prescribed fires continued in and around the Hattiesburg monitor area, keeping PM2.5 levels elevated, particularly during the evening and overnight hours. These elevated levels were driven by stable and stagnant conditions due to strong continental high pressure over the area. As shown in the hourly table above, PM2.5 concentrations decreased during the daytime hours due to increased mixing heights, which allowed for better dispersion. However, PM2.5 levels rose again in the late afternoon and overnight as a low-level nocturnal inversion developed, trapping smoke and causing an increase in PM2.5 concentrations for a daily average of 21.71ug/m^3.



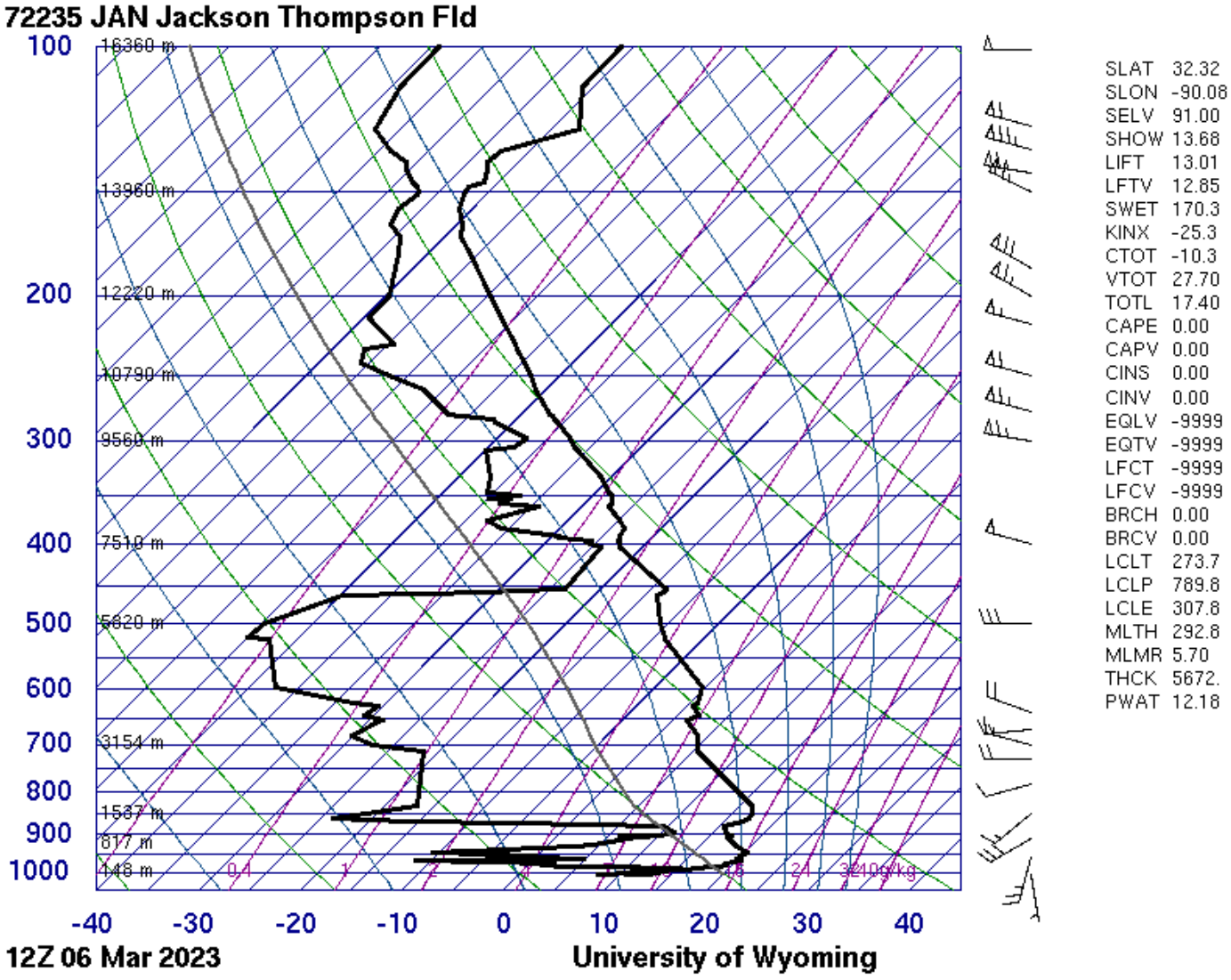
The AirNowTech Navigator image above shows numerous ongoing prescribed fires across the southeast, including those in and around the Hattiesburg monitor on March 5, 2023. Back trajectories at the 10m and 50m levels indicate light southerly winds on March 5th, carrying smoke plumes from prescribed fires south of the Hattiesburg monitor toward the monitor location



GOES East True Color image taken on March 5th, 2023, at 2231UTC, showing smoke plumes dotting the landscape from prescribed fires in and around the Hattiesburg monitor. Smoke plumes are moving south-southeast to north-northwest, as the plume(s) are caught up in light south-southeasterly winds at the surface.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
March 6 – 9, 2023	Mexico/Central American Wildfire and Prescribed Fire	RG/ RM	28-035-0004	Hattiesburg	24.7, 19.7, 30.8, & 22.8	1, 2	Mexico/Central American Wildfire C Exceptional Event Demonstration: March 6 – 9, 2023

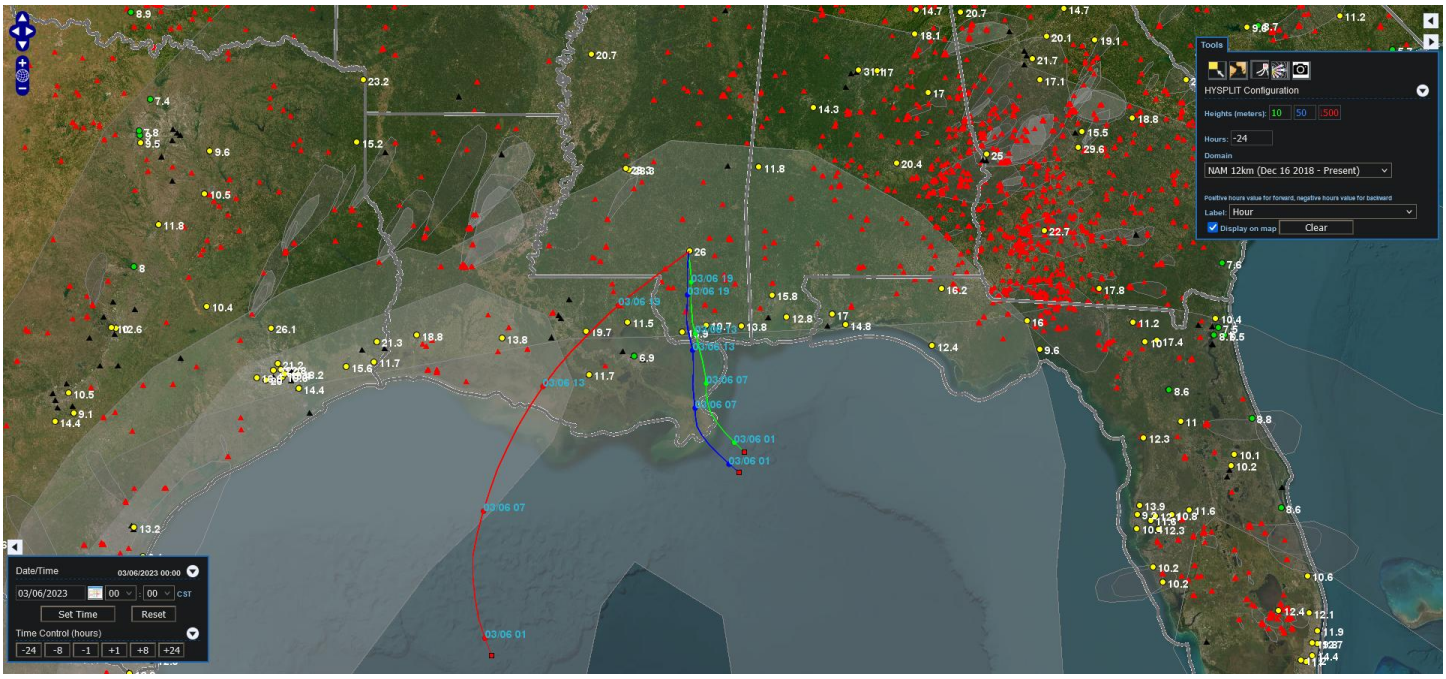
Synopsis: March 6-9th experienced a hybrid PM2.5 exceptional event combining local prescribed fires around the Hattiesburg monitor with smoke from Mexico/Central American wildfires affecting the Gulf Coast states. The morning of March 6th saw high PM2.5 values due to previous days' prescribed fire smoke being trapped near the surface by a strong overnight nocturnal inversion (previous days exceptional event). A one-hour PM2.5 maximum of 55.2 µg/m^3 was recorded during the early morning hours. Ongoing prescribed fires throughout the day around the Hattiesburg monitor kept PM2.5 values elevated, with levels climbing into the mid-30s µg/m^3 range during several afternoon hours.



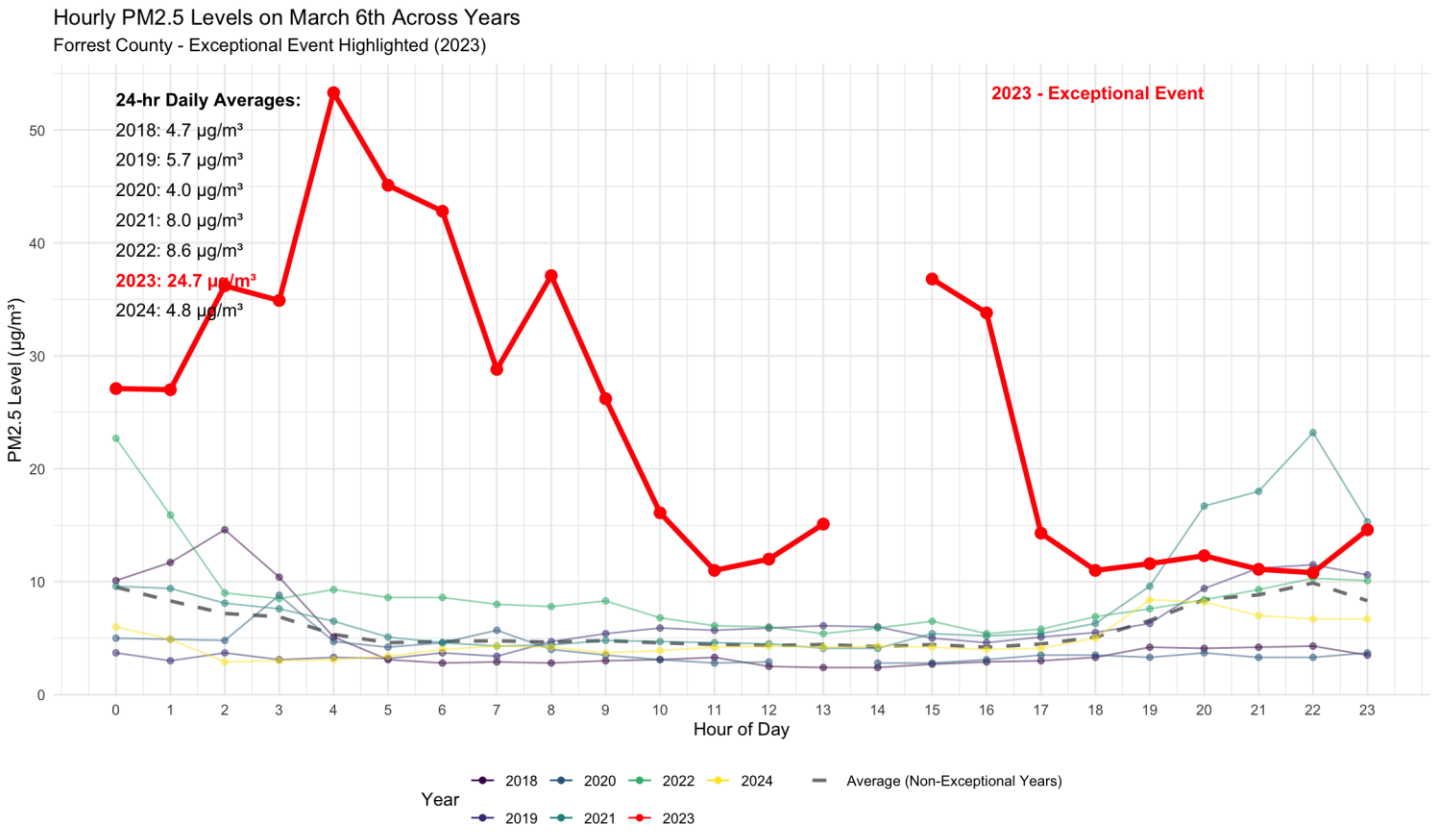
Morning sounding on March 6th, 2022, shows very strong low level nocturnal inversion that set up overnight trapping smoke from previous days prescribed fires, keeping PM2.5 elevated overnight into the 30's 40's and a one-hour max of 55.2 ug/m^3.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/06/23	29	28.9	38.1	36.8	55.2	47	44.7	30.7	39	27.1	17	11.9	12.9	16	192	37.7	34.7	15.2	11.9	12.5	13.2	12	11.7	15.5	26.03	55.2

Ongoing prescribed fires throughout the day around the Hattiesburg monitor, kept PM2.5 values elevated with a couple hours in the afternoon climbing into the middle 30's ug/m^3 range, resulting in a daily PM2.5 average of 26.03 for this day.

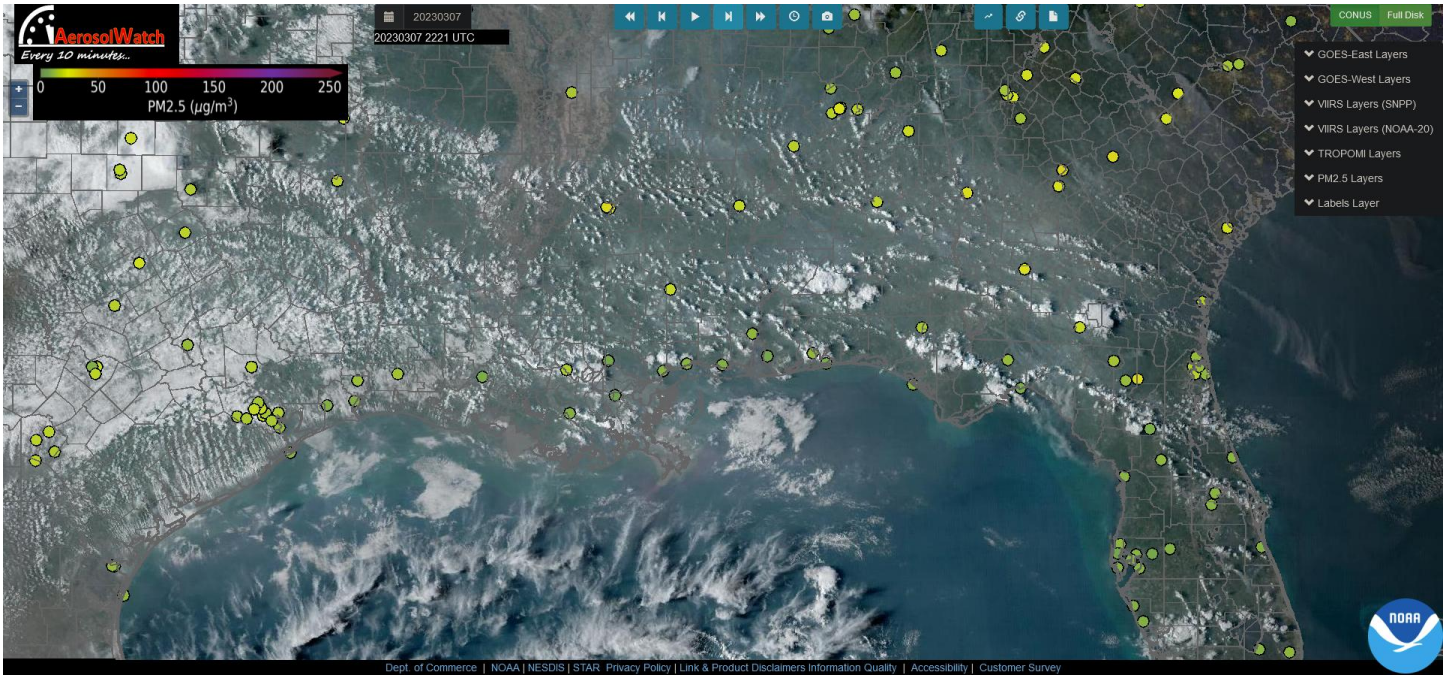


The AirNowTech Navigator image above shows ongoing prescribed fires across the southeast, including those in and around the Hattiesburg monitor on March 6th, 2023. Back trajectories at the 10m and 50m levels indicate light southerly winds on March 6th, carrying smoke plumes from prescribed fires south of the Hattiesburg monitor toward the monitor location. Also notice the encroachment of smoke from the Mexican fires moving into the Gulf States that is embedded in southerly wind flow indicated by smoke density on the map.

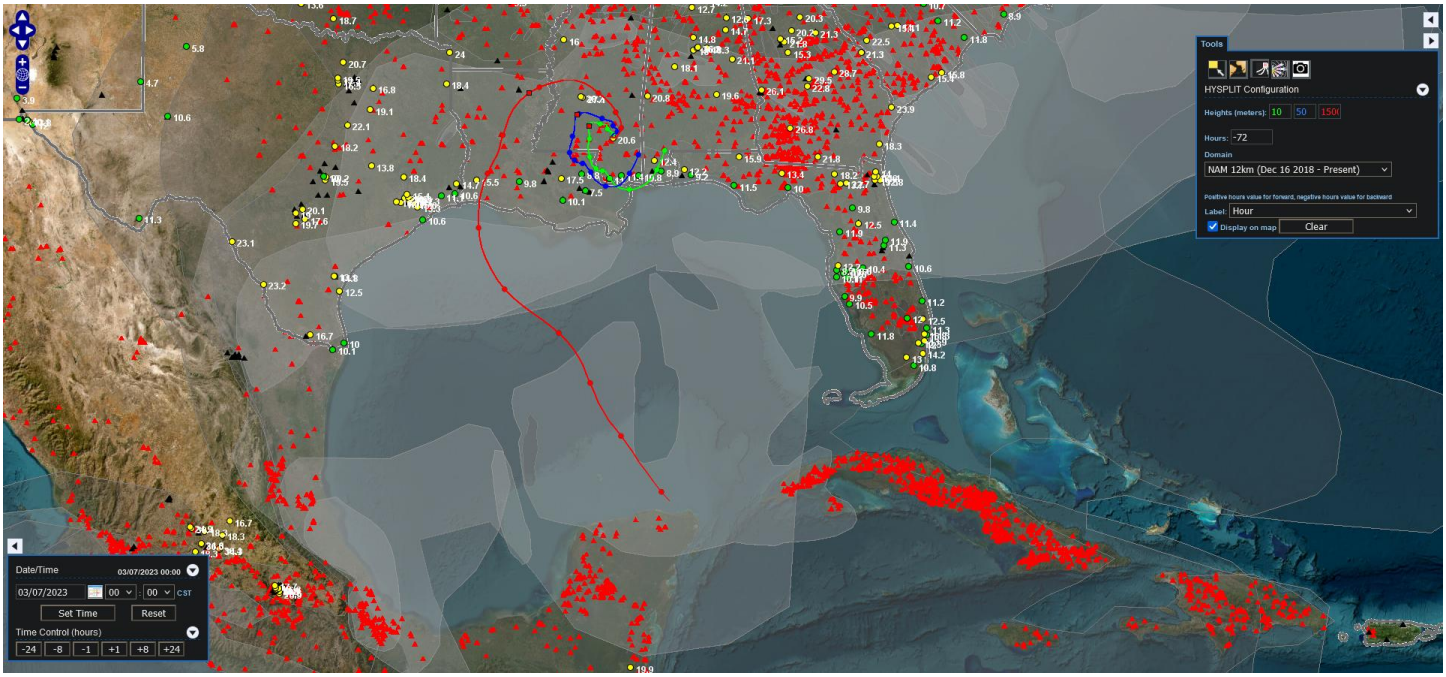


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years.

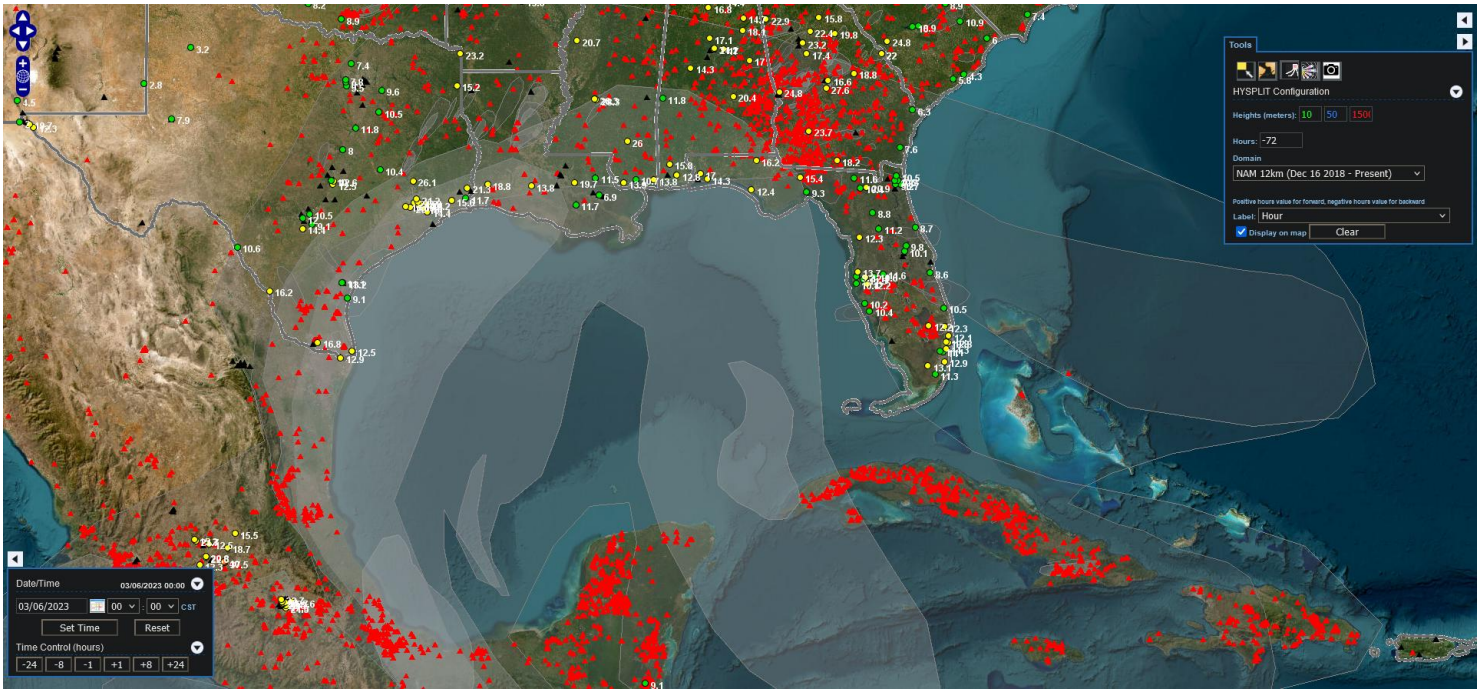
March the 7th, smoke from Mexico/Central American wildfires, has fully engulfed the southeastern United States. This smoke combined with ongoing numerous prescribed fires in the southeast, as elevated numerous PM2.5 monitors well into the moderate category for their daily averages.

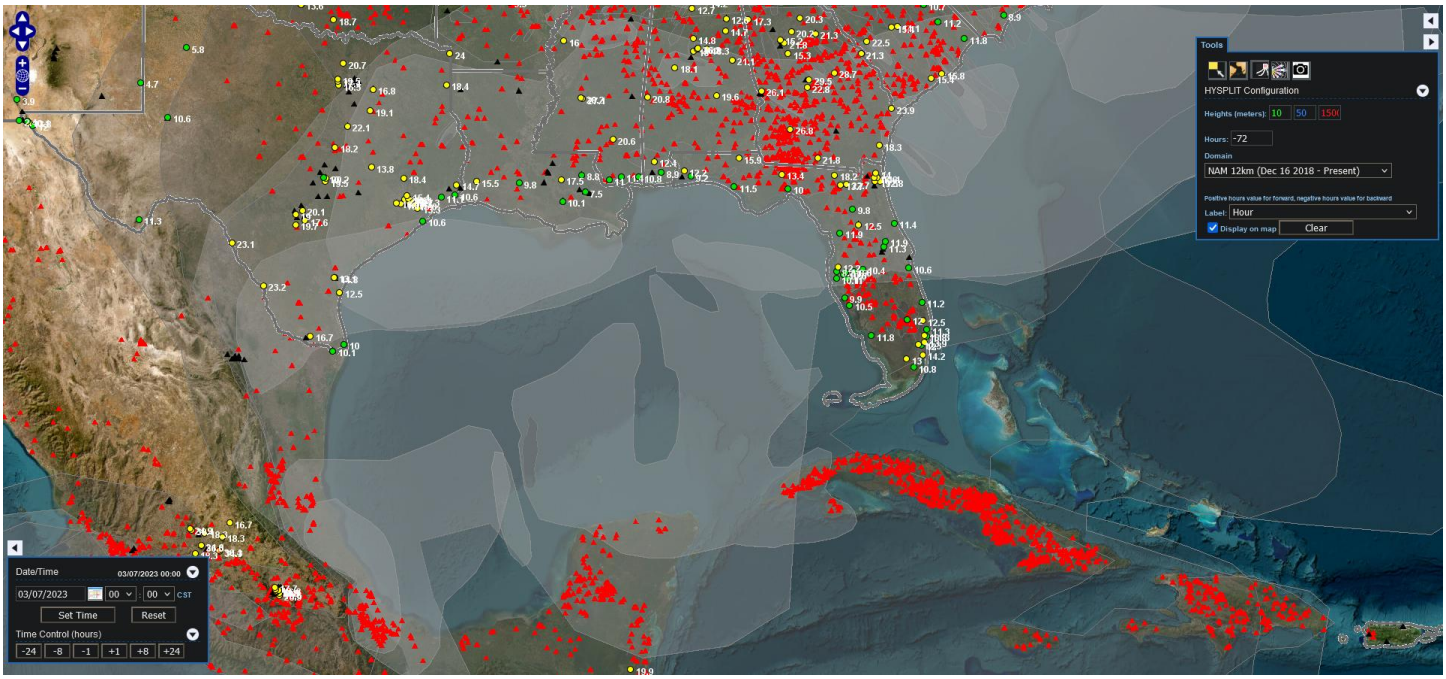


GOES East True Color image taken on March 7th, 2023, at 2221UTC, showing expansive smoke shield across the southeastern United States from both ongoing prescribed fires combined with smoke from the Mexican fires.



The AirNowTech Navigator image above shows the expansive smoke moving northward from wildfires in Mexico and Central America, along with numerous ongoing prescribed fires across the southeast, including those near the Hattiesburg monitor on March 7, 2023. The 72-hour back trajectory in the AirNowTech image indicates limited movement of the air parcel at the 10m and 50m levels, reflecting stagnant surface conditions. However, at 1500m, the parcel is transporting smoke from the Mexican and Central American wildfires into the Gulf States.

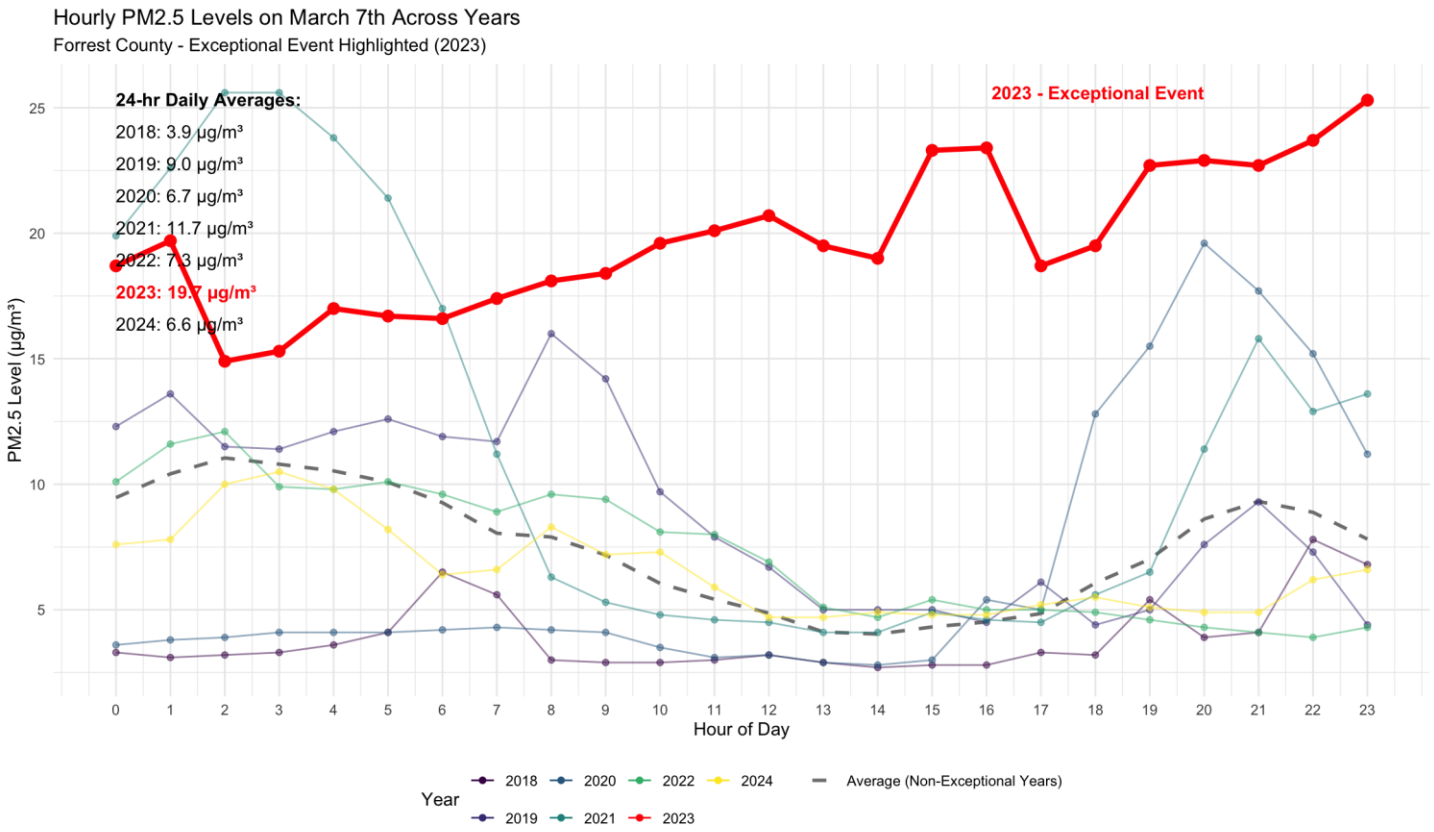




The two AirNowTech images above are from March 6 and March 7th, showing the northward progression of the Mexican and Central American wildfires into the Gulf States.

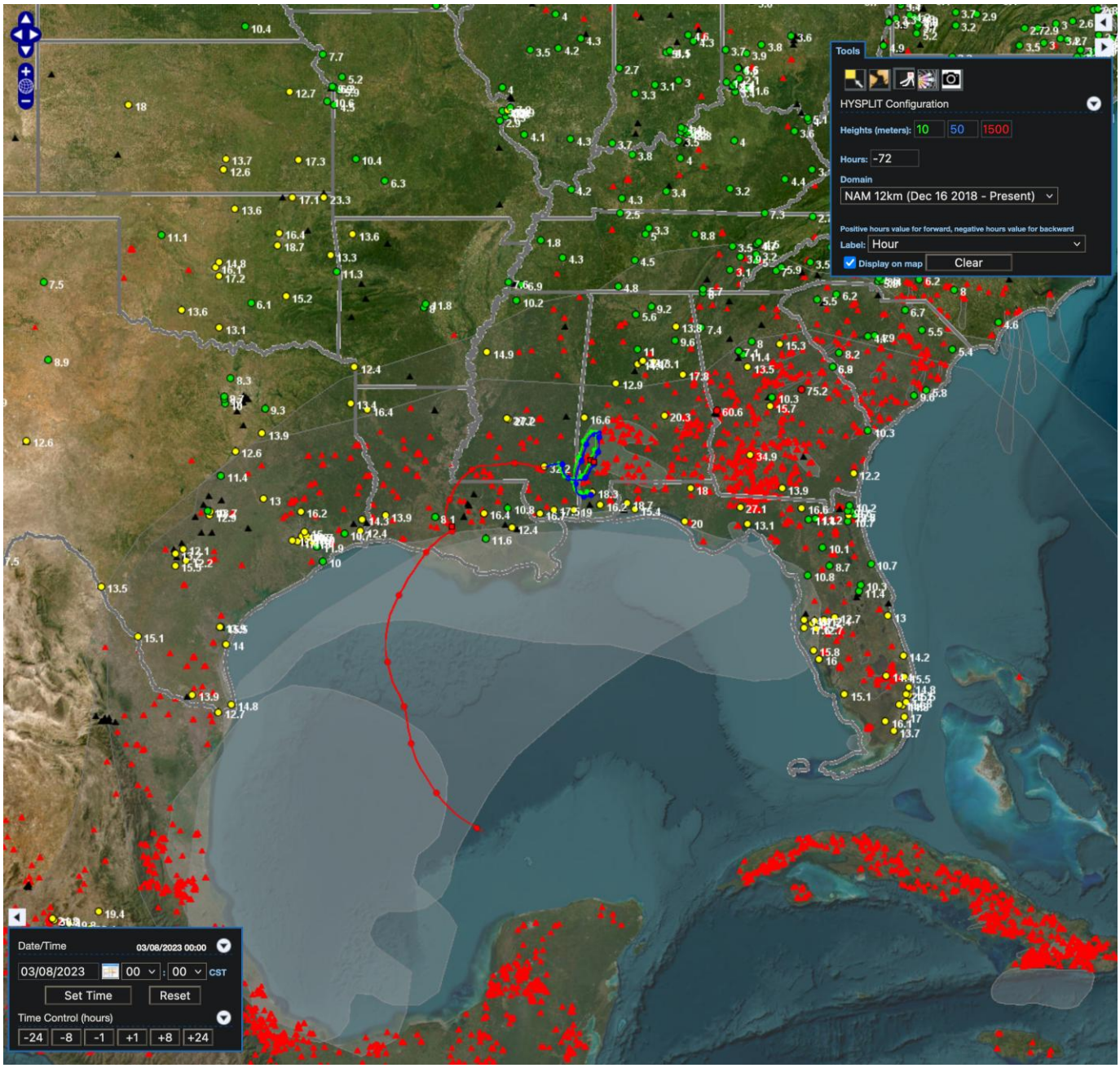
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/07/23	19.6	20.6	15.8	16.2	17.9	17.6	17.5	18.3	19	19.3	20.5	21	21.6	20.4	19.9	24.2	24.3	19.6	20.4	23.6	23.8	23.6	24.6	27.2	20.69	27.2

Hourly values in image above at the Hattiesburg monitor show elevated hourly PM2.5 values throughout the day thanks in part to smoke from Mexican fires as well as local prescribed fires with the monitoring location having a daily average of 20.69ug/m^3.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. Figure shows how both local prescribe fires in addition to Mexico/Central American wildfire smoke that has moved over the area, keeps PM2.5 values elevated.

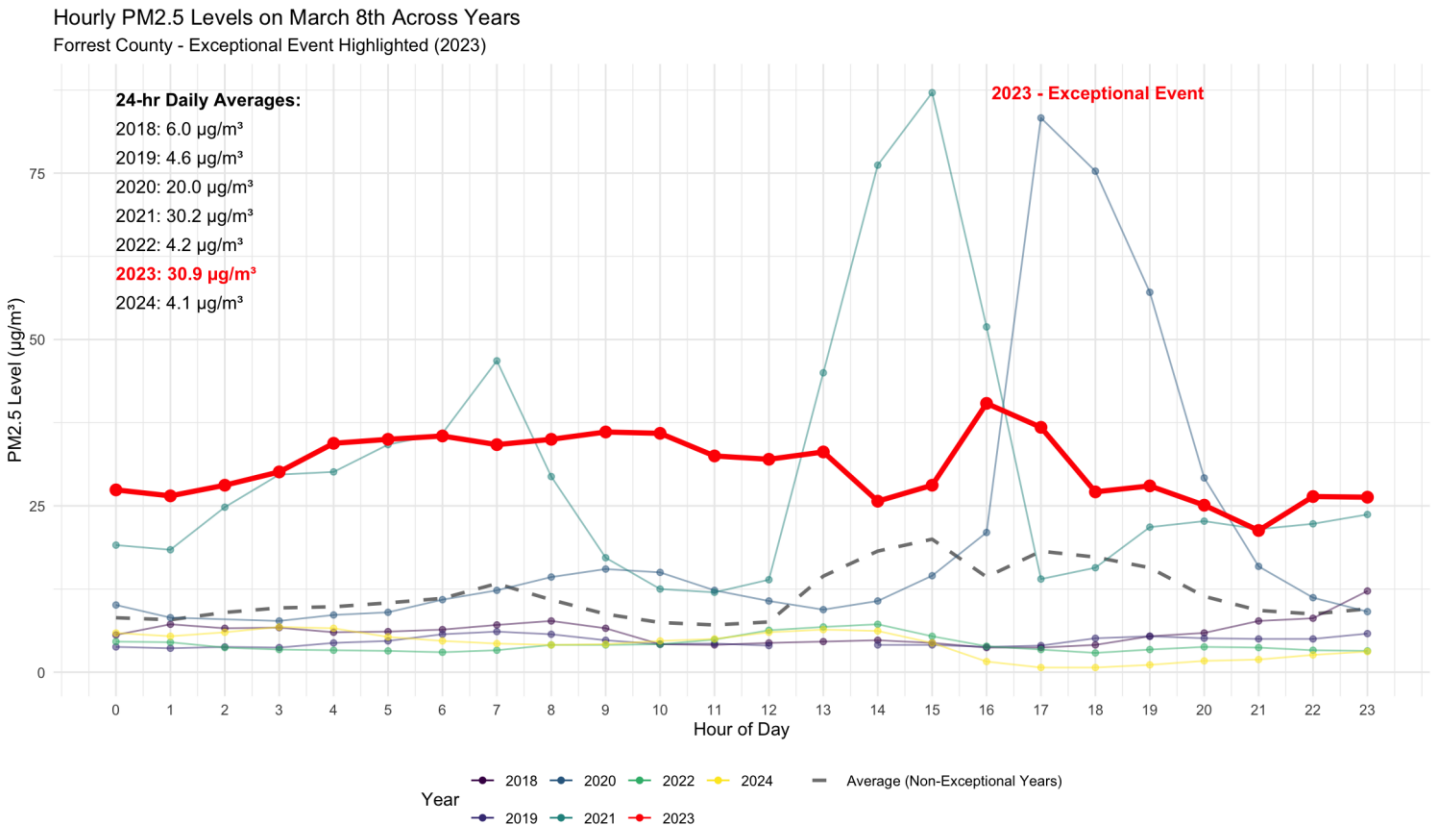
March 8th: Hattiesburg monitor saw the highest PM2.5 values of the four-day event with a 24-Hour value of 30.8ug/m^3 as PM2.5 values remained elevated throughout the day in the twenties and thirties microgram range, thanks in large part of continuation of smoke from Mexico/Central America wildfires and prescribed fires in and around the Hattiesburg monitor.



The AirNowTech Navigator image above shows smoke across the Gulf States, resulting from both numerous prescribed fires in the southeast and ongoing wildfires in Mexico and Central America, which continue to impact the region. This is illustrated in the 72-hour back trajectory overlay: at 1500m, the parcel originates near the Mexican and Central American wildfires, while at the 10m and 50m levels, the parcel originates in Alabama, where numerous prescribed fires are ongoing. Over the 72-hour period, the limited movement of the 10m and 50m parcels indicates stagnant, low-wind conditions that contribute to smoke stagnation and elevated PM2.5 levels.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/08/23	29.3	28.4	30	32	36.3	36.9	37.4	36.1	35.9	37	36.8	33.4	32.9	34	26.6	29	41.3	37.7	28	28.9	26	23.2	28.3	28.2	32.23	41.3

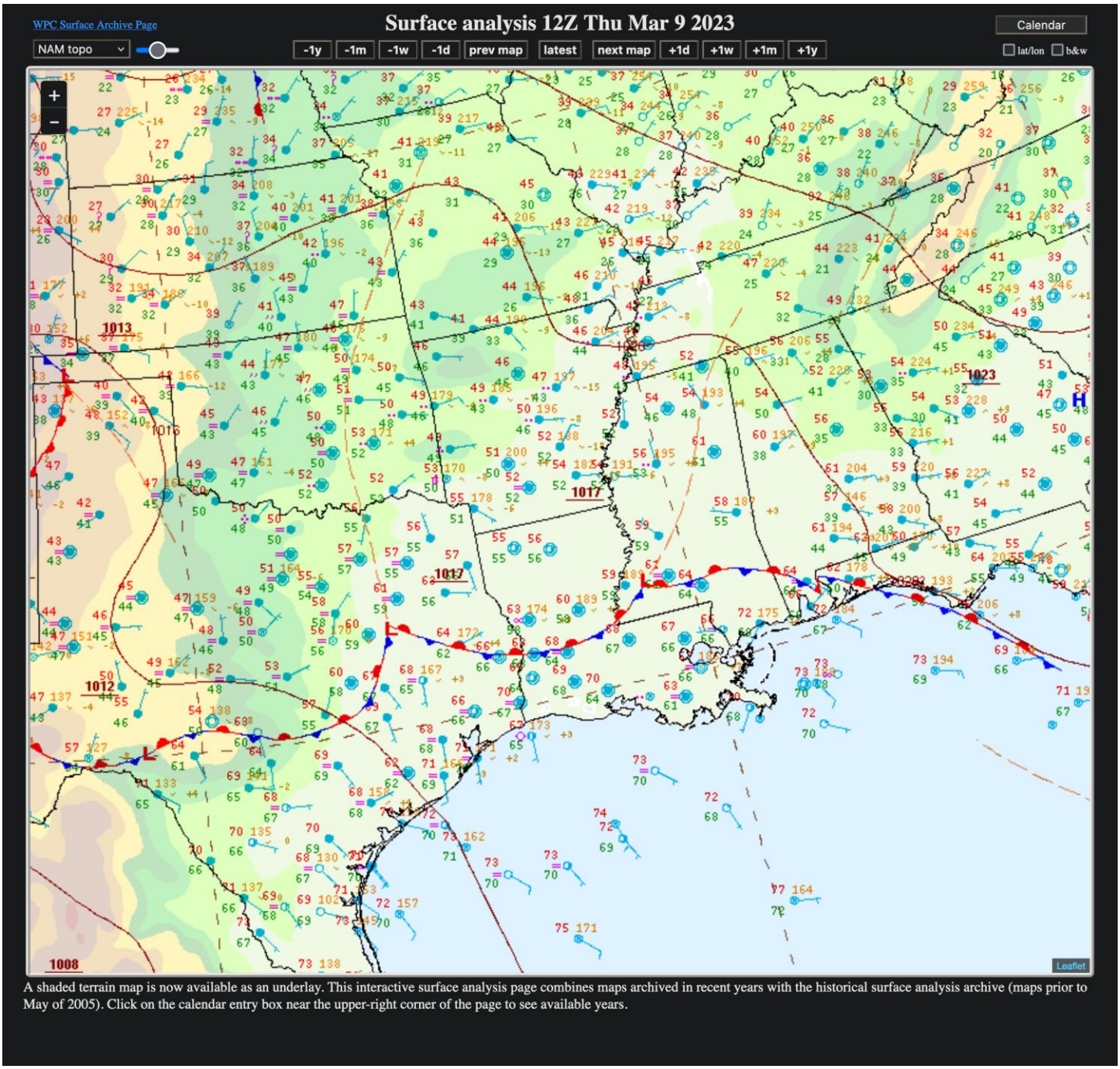
Hourly values in image above at the Hattiesburg monitor show elevated hourly PM2.5 values throughout the day thanks in part to smoke from Mexican fires as well as local prescribed fires with the monitoring location having a daily average of 32.23ug/m^3.



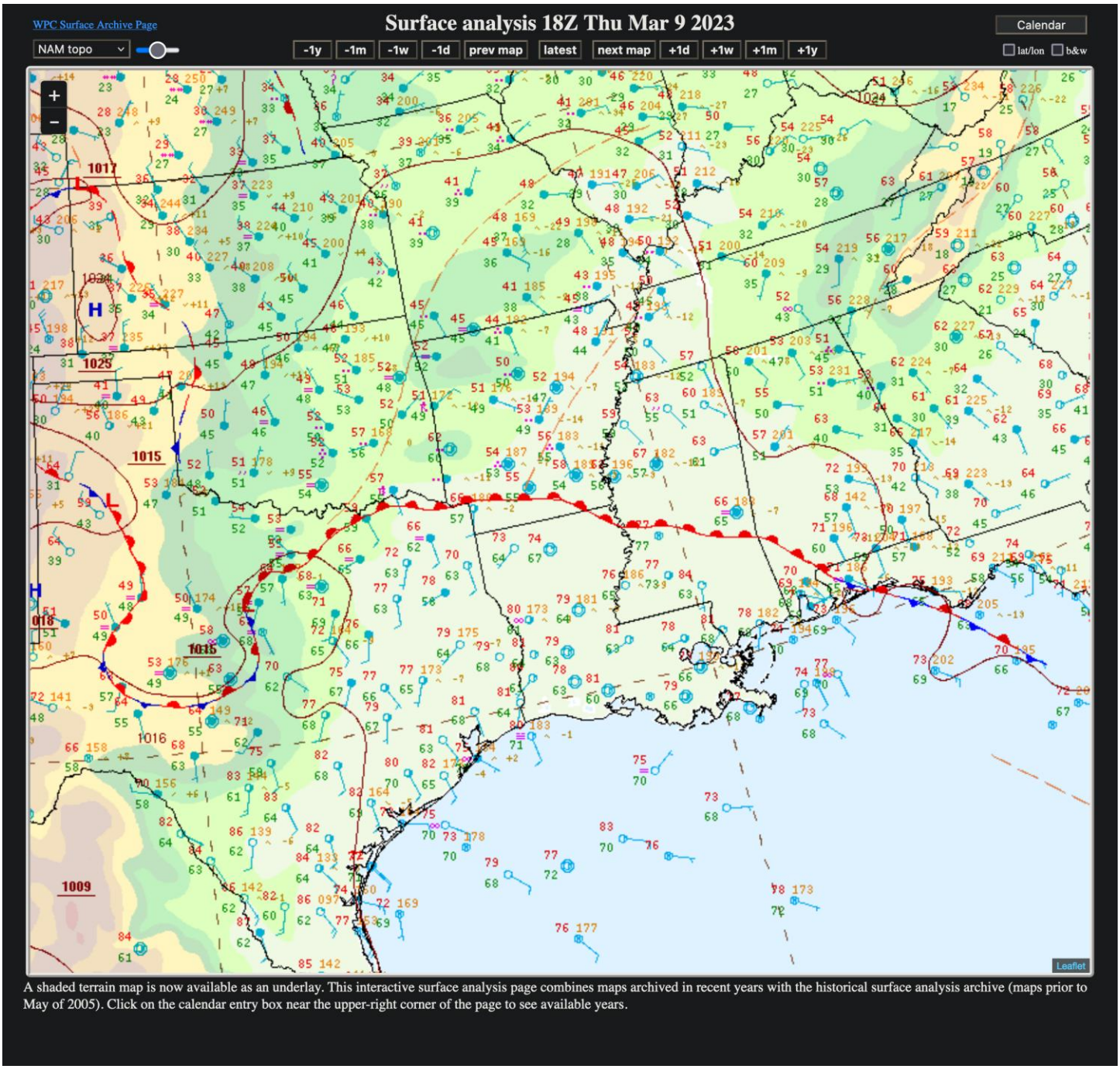
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. Figure shows how both local prescribe fires in addition to Mexico/Central American wildfire smoke that has moved over the area, keeps PM2.5 values elevated.

March 9th: PM2.5 levels remained elevated, with several hours in the upper 20s to 30s µg/m^3 range, partly due to lingering smoke from previous days. This was especially evident in the morning, as calm surface winds and a shallow frontal inversion, caused by a stationary boundary over the area, trapped pollutants near the ground. Overcast skies prevented the rapid diurnal heating that typically occurs in the morning, maintaining shallow mixing heights and preserving the low-level frontal inversion.

PM2.5 values stayed in the twenties until around noon, when the stationary boundary shifted north as a warm front. The overcast skies began to clear, forming a cumulus field that allowed for increased diurnal heating, which raised mixing heights and lowered PM2.5 values into the teens. Prescribed fires continued throughout the afternoon, keeping PM2.5 levels elevated. When the warm front lifted north, it left a warm, stagnant air mass around the Hattiesburg monitor, further inhibiting ventilation. The 24-hour PM2.5 average for this day was 24.13 µg/m^3.



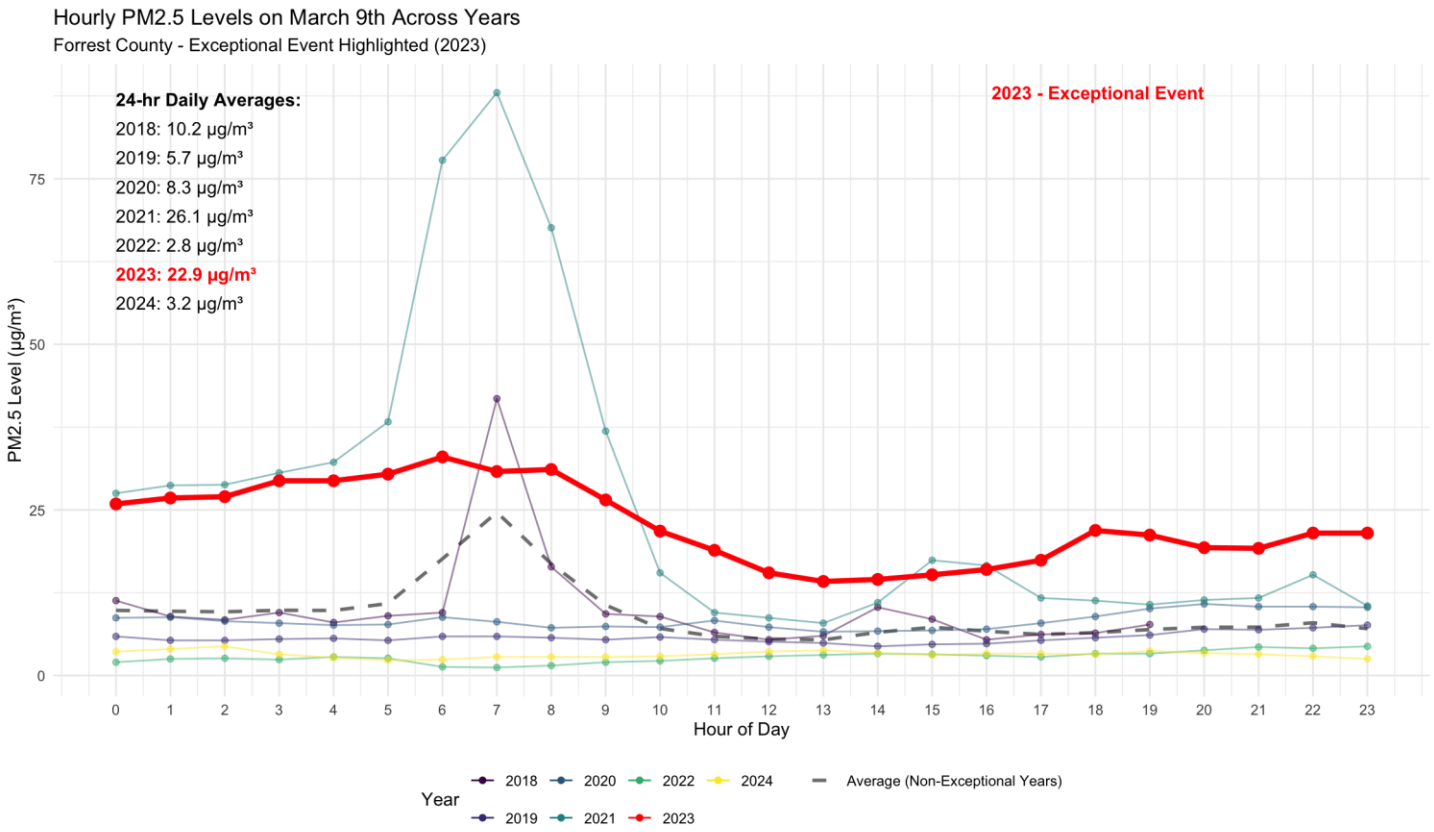
12Z surface analysis from March 9, 2023, showing stationary boundary draped across southern Mississippi, over the Hattiesburg monitor, helping form morning frontal inversion.



18z surface analysis from March 9, 2023, showing stationary boundary began to move northward as a warm front, in its wake, leaving warm, stagnant airmass.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/09/23	27.8	28.7	28.9	31.3	31.3	32.3	34.9	32.7	33	27.4	22.7	19.8	16.4	15.1	15.4	16.1	16.9	18.3	22.8	22.1	20.2	20.1	22.4	22.4	24.13	34.9

Hourly values in the image above showing elevated PM2.5 levels during the early morning hours, lasting until around noon, until values dropped into the teens. Values once again, increased after sunset back into the twenties thanks to winds going calm and development of low-level, nocturnal inversion.

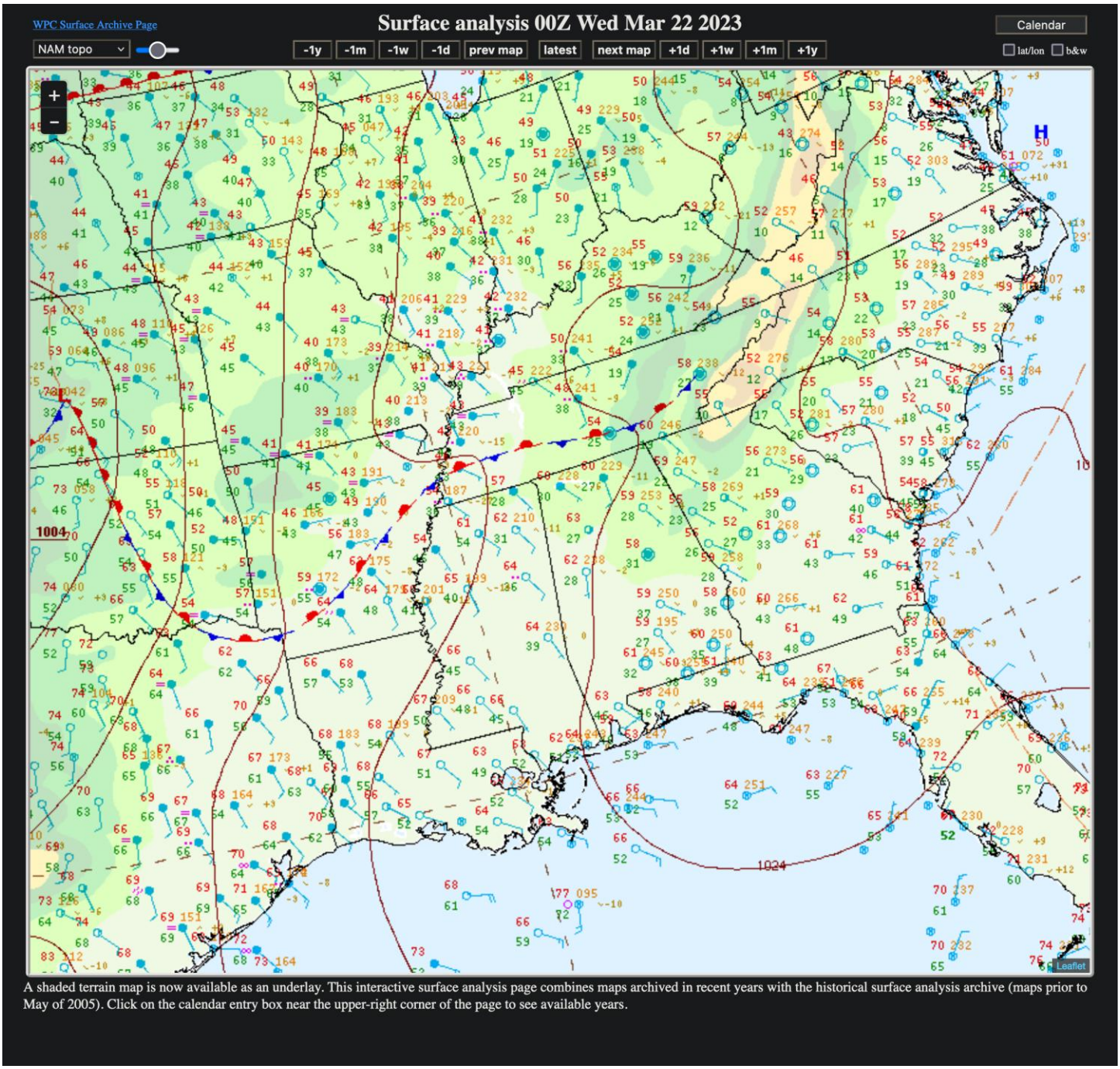


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. Figure shows how both local prescribe fires in addition to Mexico/Central American wildfire smoke that has moved over the area, keeps PM2.5 values elevated.

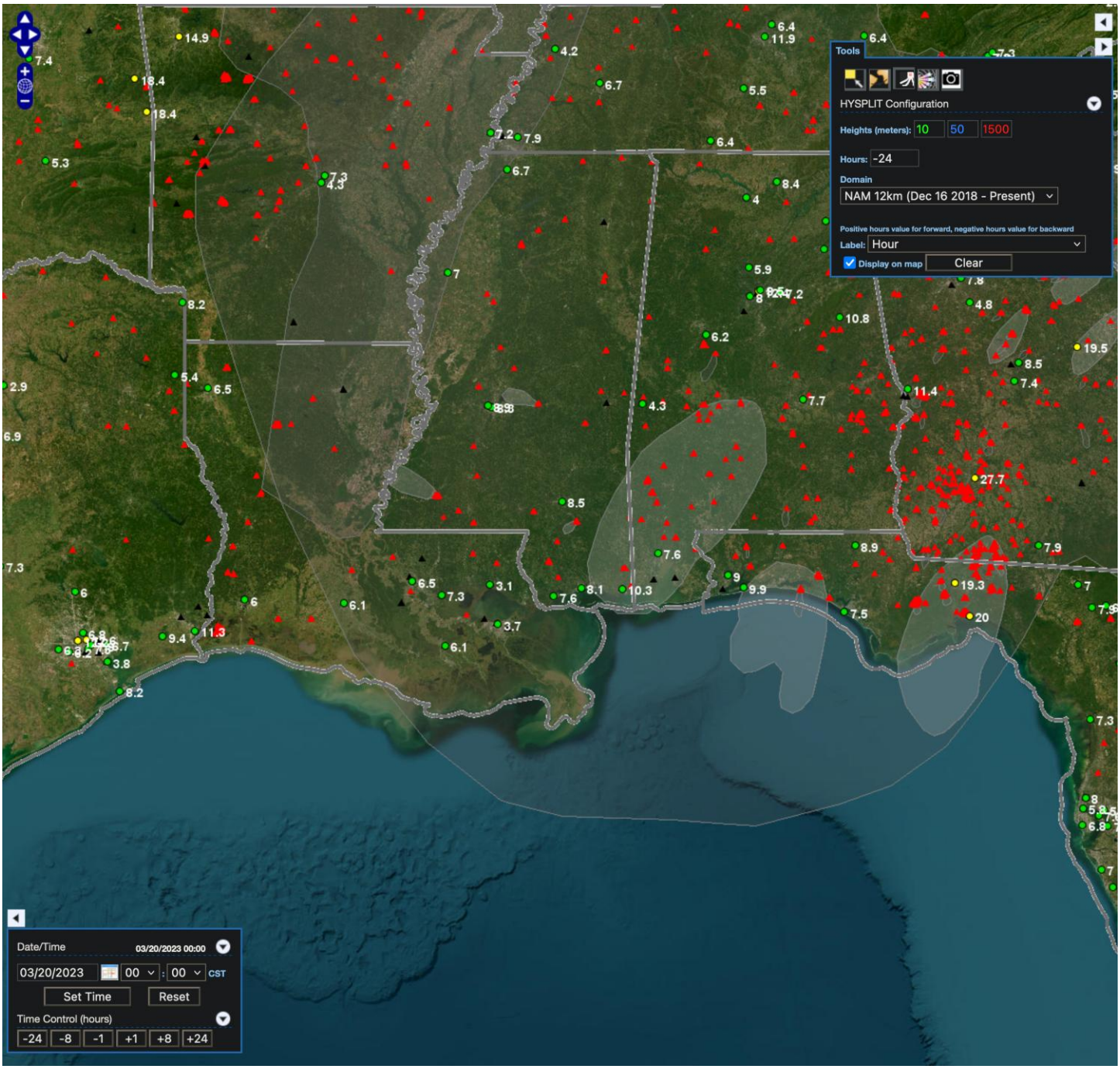
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
March 21, 2023	Prescribed Fire	RM	28-035-0004	Hattiesburg	25.7	2	Prescribed Fire an Exceptional Event Demonstration: March 21, 2023

Synopsis: Numerous prescribed fires were ongoing throughout the Gulf States on both March 20th and 21st, with surface high pressure firmly in control over the area in the wake of several recent frontal passages. Smoke from earlier prescribed fires began to collect and stagnate across the region, due largely to a shallow nocturnal inversion that set up overnight. This caused PM2.5 values to reach the upper twenties to lower thirties (µg/m^3) in the early morning hours of March 21st. Pollutants were slow to mix out in the morning due to broken cloud cover, keeping PM2.5 levels elevated in the twenties until noon. As skies cleared and mixing increased, PM2.5 values dropped to the lower teens, bottoming out at 9.6 µg/m^3.

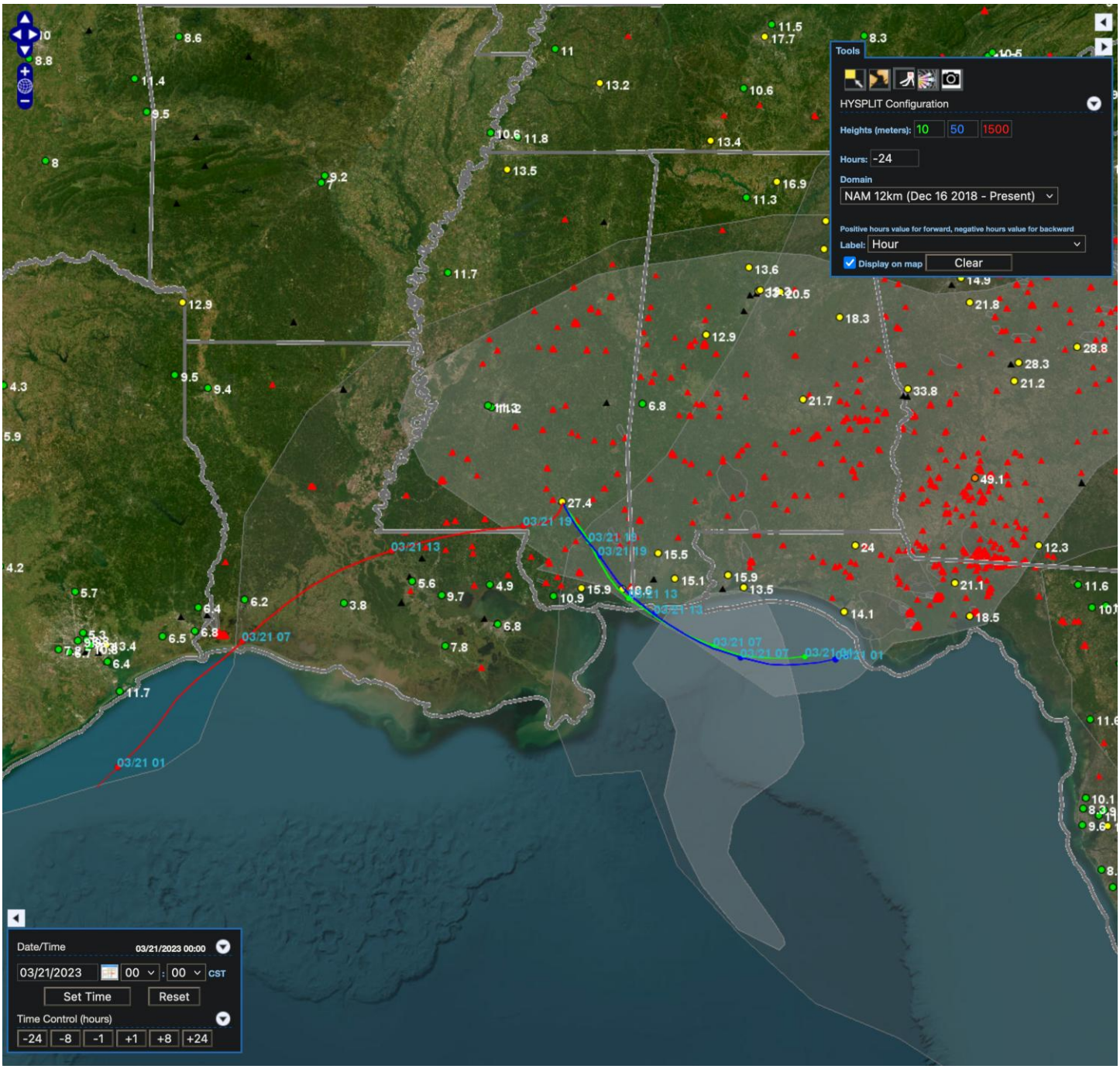
In the afternoon of the 21st, a prescribed fire was ignited south-southeast of the Hattiesburg monitor in Harrison County. The south-southeasterly winds carried the smoke plume directly toward the Hattiesburg monitor, pushing PM2.5 levels up into the 50s (µg/m^3) and raising the daily average for March 21, 2023, to 27.47 µg/m^3.



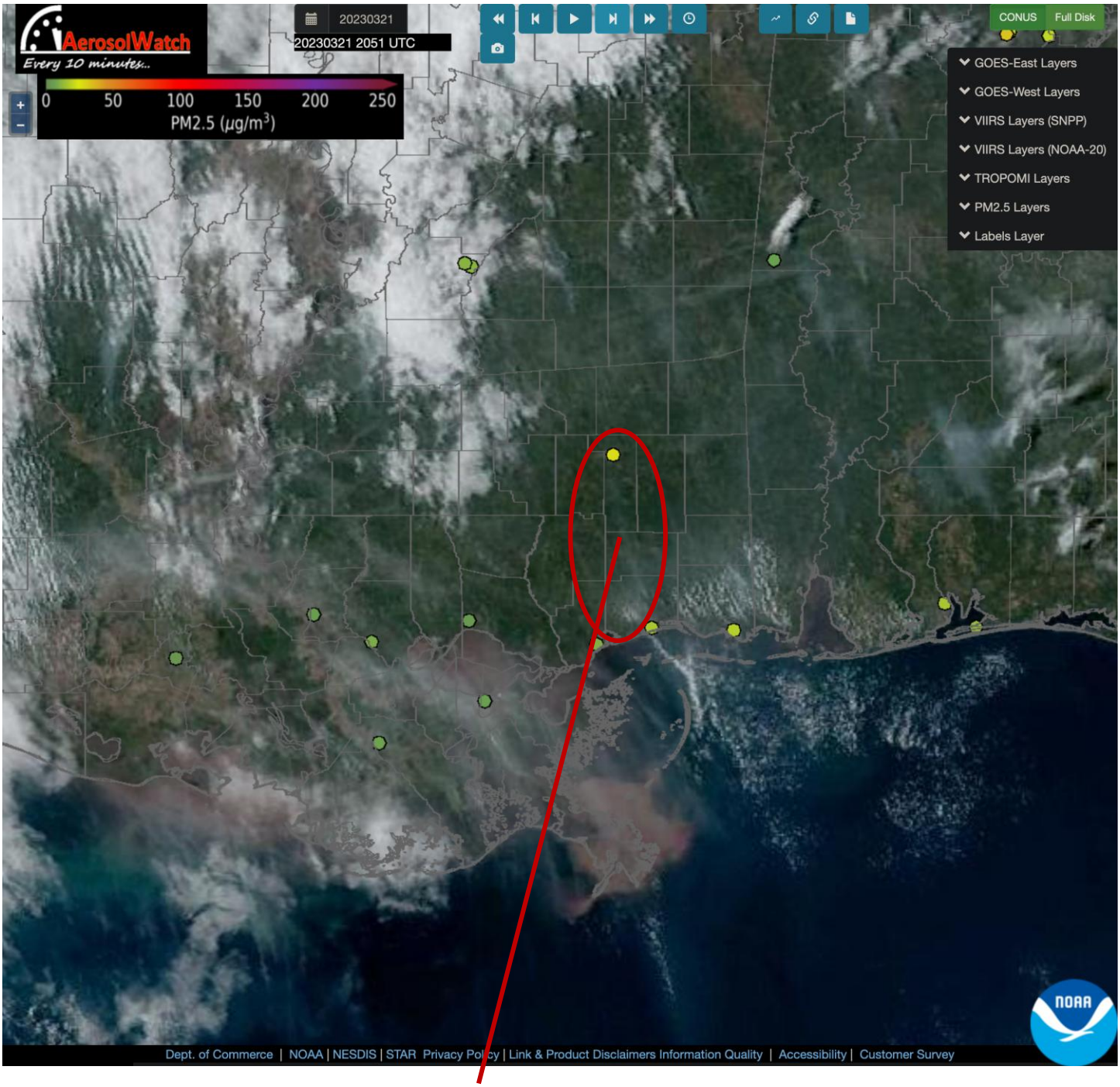
00z surface analysis (March 21st, 2023, at 7PM CDT) showing southeasterly wind flow over Mississippi around back side of High pressure that is centered off the Mid Atlantic Coast.



The AirNowTech Navigator image taken from March 20th above shows smoke across the Gulf States, from prescribed fires on March 20th. This helped enabled PM2.5 values to increase during the early morning hours of March 21st.



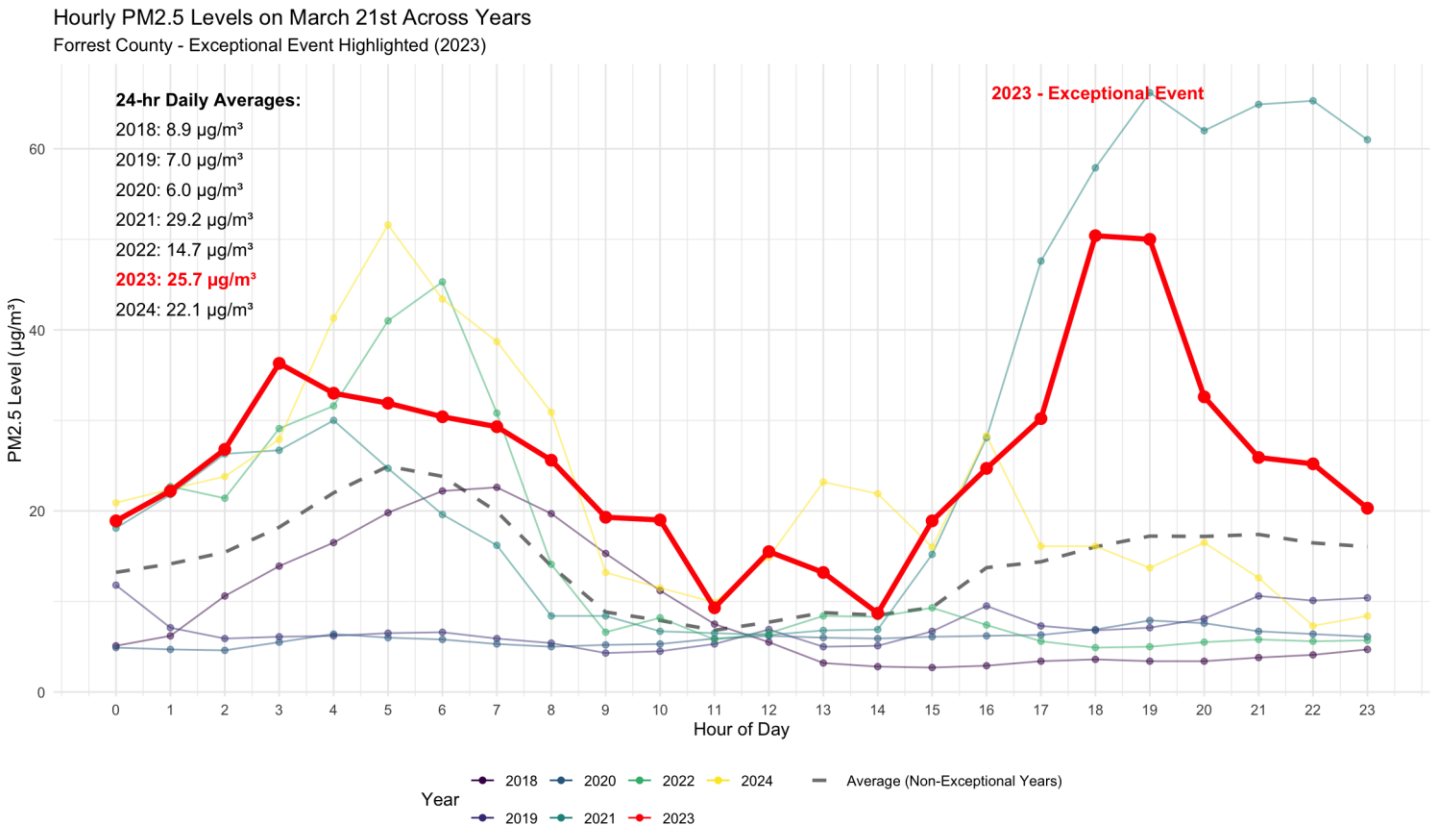
The AirNowTech Navigator image taken from March 21st above, shows ongoing prescribed fires in the southeastern United States overlayed with 24-Hour back trajectory showing southeasterly wind flow at the lowest 10m and 50m levels.



GOES East True Color image taken on March 21st, 2023, at 2051UTC, showing smoke plume from prescribed fire in Harrison County, located to the south-southeast of the Hattiesburg monitor, the smoke plume is trajectory directly towards the Hattiesburg monitor.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	03/21/23	20.8	24.1	28.7	38.2	34.9	33.8	32.3	31.2	27.5	21.2	20.9	11.2	17.4	14.1	9.6	19.8	25.6	32.1	52.3	51.9	34.5	27.8	27.1	22.2	27.47	52.3

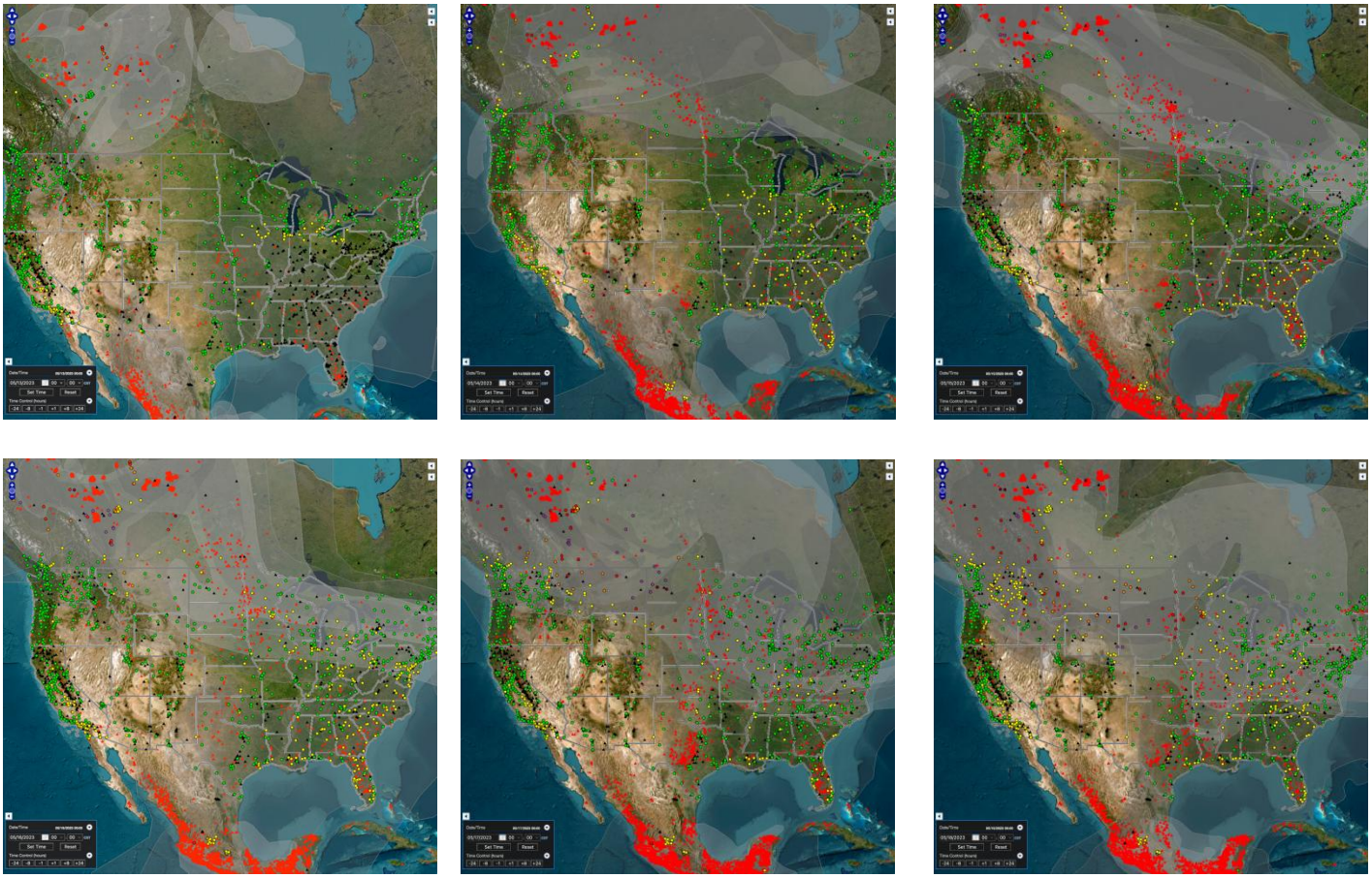
The hourly values in the image above show elevated PM2.5 levels during the early morning hours, lasting until around 1 PM, when values dropped into the teens due to increased mixing. Later, PM2.5 levels rose again in the late afternoon into the evening, as smoke from prescribed fires located to the south-southeast of the monitor was carried by south-southeasterly winds directly toward the Hattiesburg monitor.

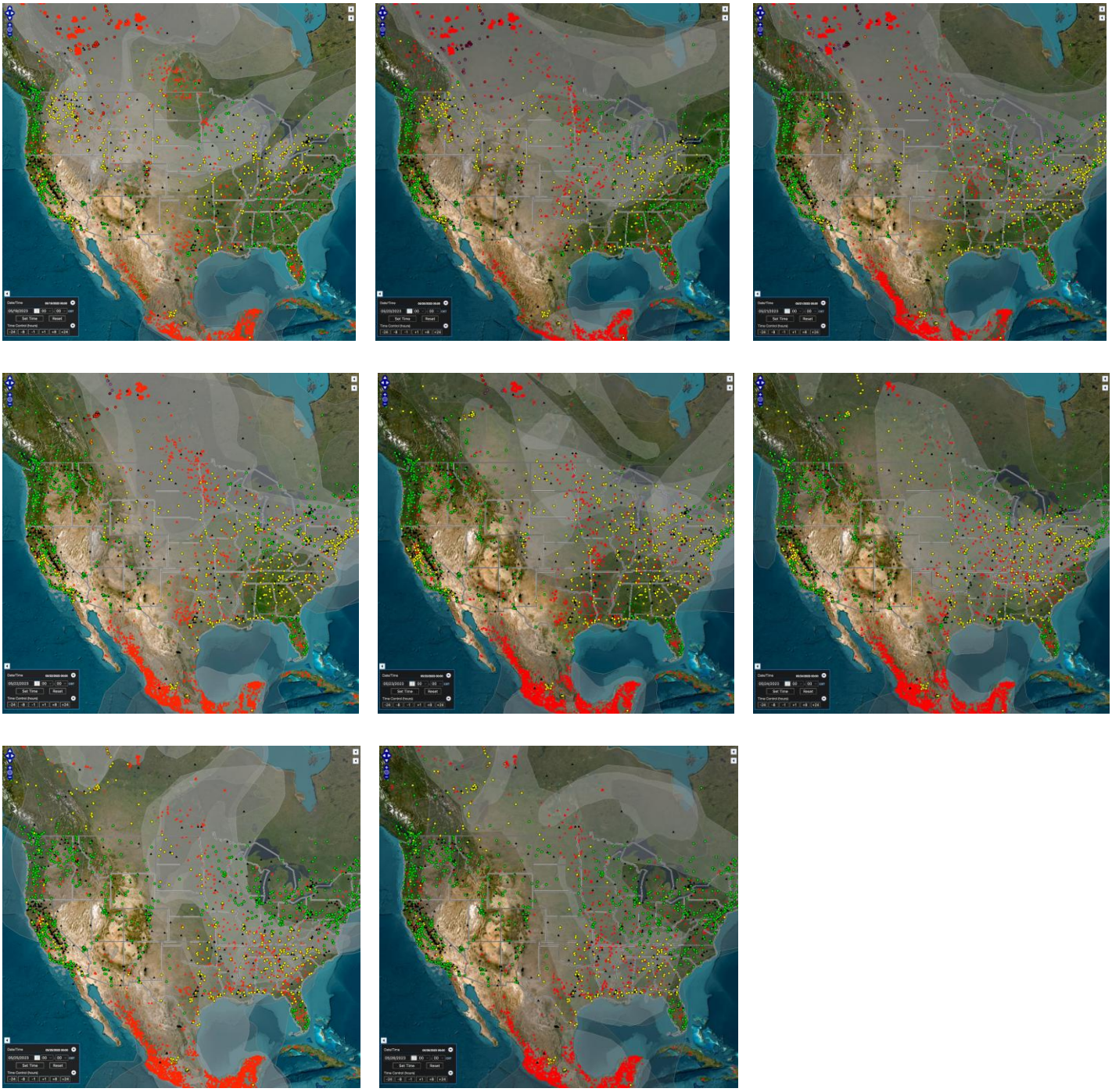


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. Figure shows how local prescribe fires kept PM2.5 values elevated to reach a 24-Hour daily average of 25.7ug/m^3.

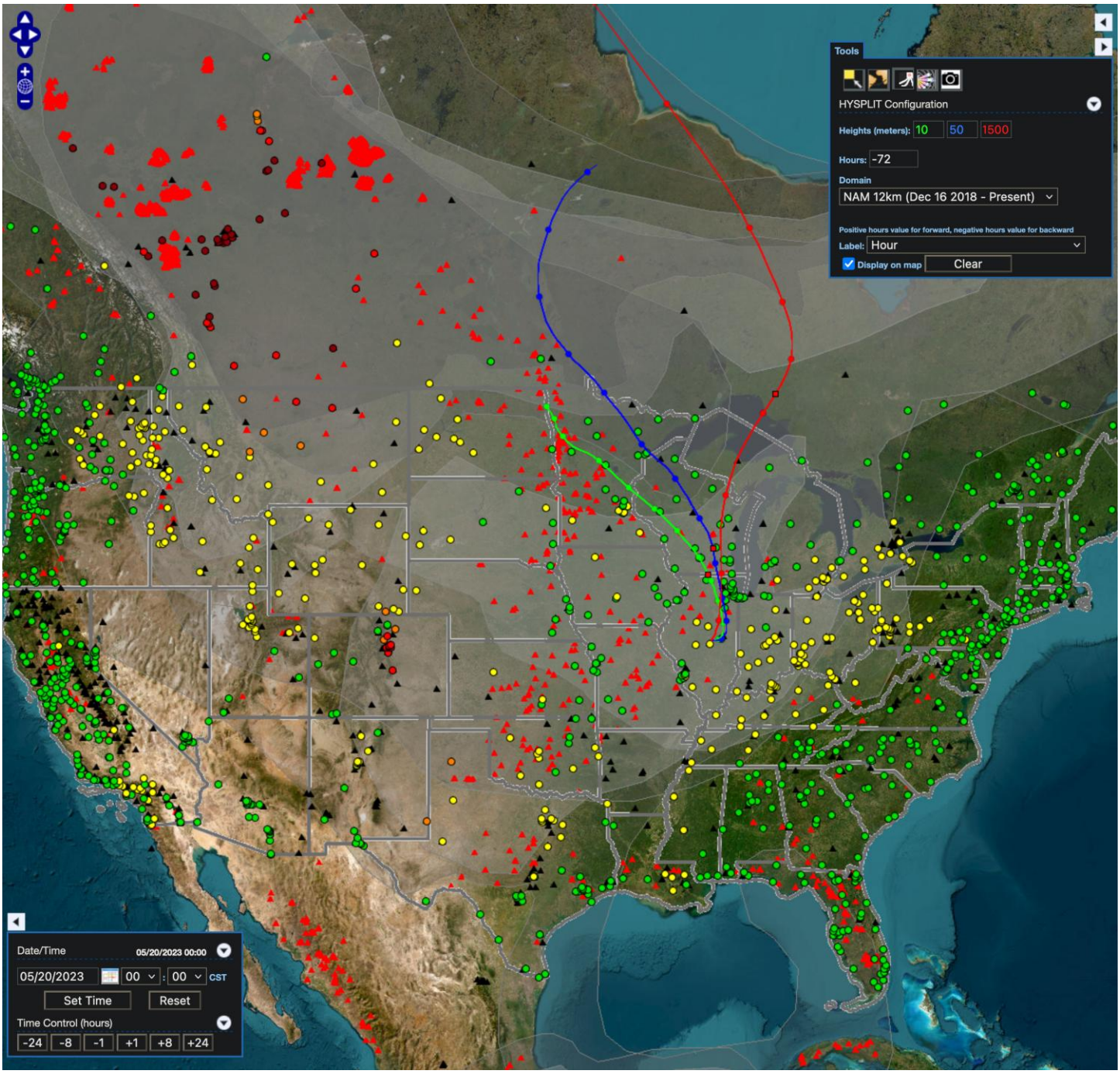
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
May 21, 22, 25, 26, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	19.1, 23.9, 19.8, 16.9	2, 3	Canadian Wildfire C Exceptional Event Demonstration: May 21, 22, 25, 26, 2023

Synopsis: May 21st through the 26th, the Hattiesburg monitor saw elevated PM2.5 values, thanks to transported smoke from Canadian wildfires. At the time, there were numerous ongoing wildfires in the northwestern portions of Canada that had been ongoing for much of the first half of May 2023. The fires were creating an expansive shield of smoke that would eventually encompass much of the United States, specifically the eastern 2/3rds of the United States. A major player in transporting the smoke from Canada, down to the United States was a series of cold fronts that were moving across the central, eastern, and southern United States, thanks to persistent upper level troughing, allowing smoke laden Canadian air-mass(es) to move deep into the United States behind these fronts.

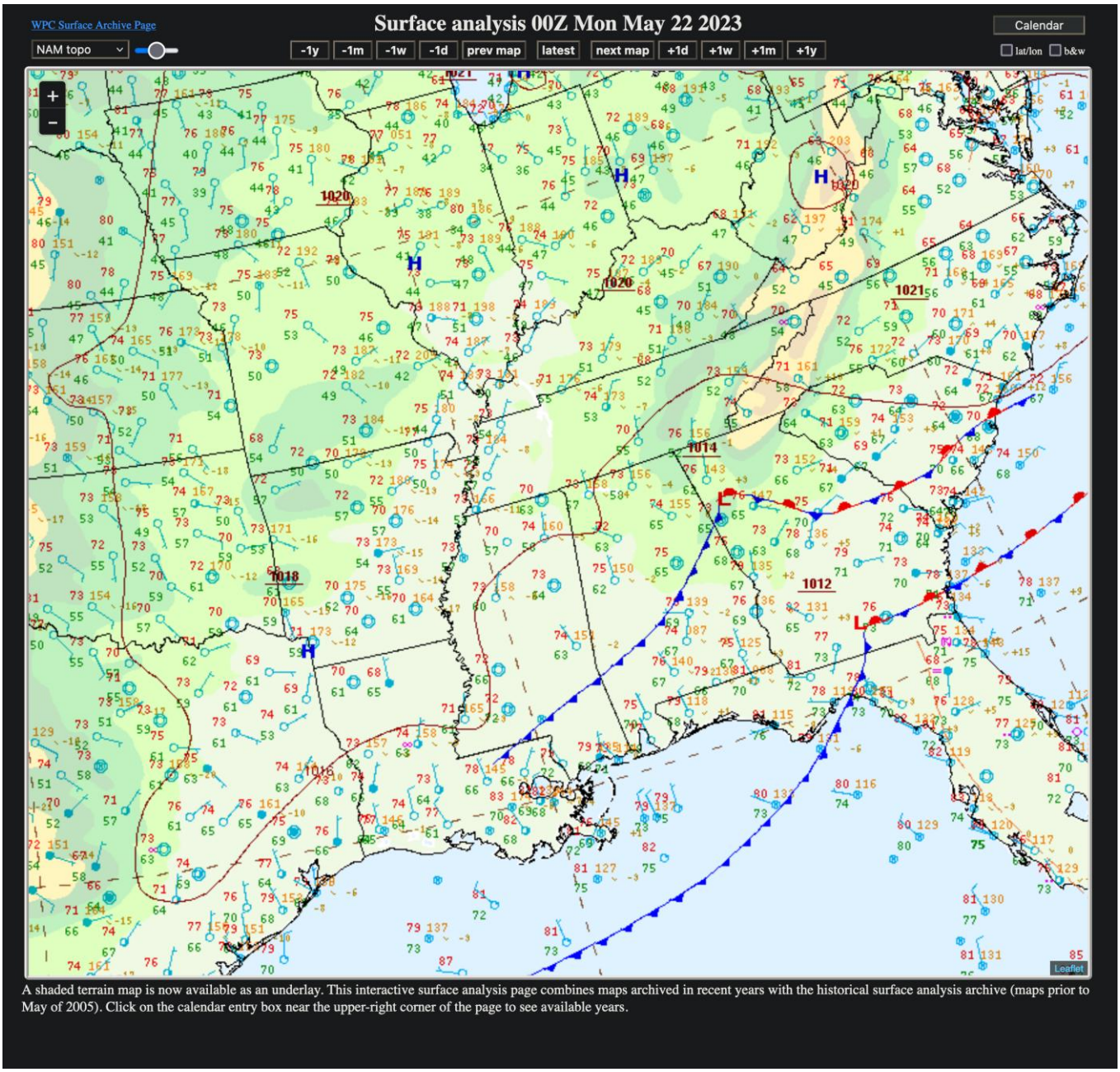




Series of AirNowTech Navigator image taken from May 13th, 2023, through May 26th, 2023, show the progression of smoke from the Canadian wildfires, into the eastern 2/3rds of the United States. Transport of the smoke into the United States was aided by persistent upper level troughing, helping push a series of cold fronts to the right of the Rockies, helping transport smoke from the Canadian wildfires, deep into the United States, increasing PM2.5 values.



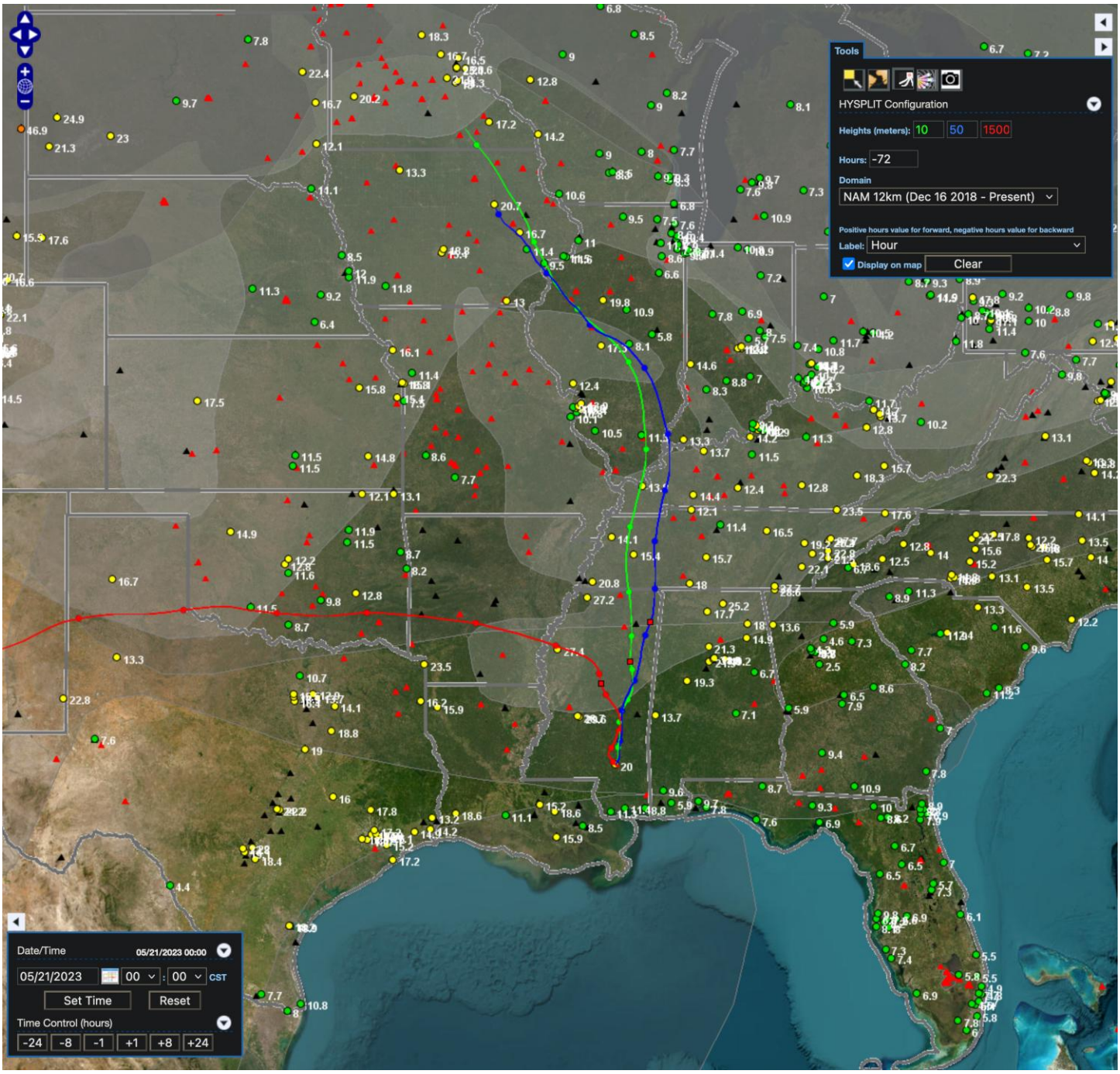
The AirNowTech Navigator image taken from May 20th, 2023, above, shows ongoing wildfires in northwestern Canada with numerous PM2.5 sites showing purple, indicative of high surface smoke concentrations across the area where fires originated. 72 Hour Back trajectories show how the southern leading edge of Canadian wildfire smoke has made its way into the Ohio River Valley from Canada, behind surface front that had moved through the previous day, transporting smoke south.



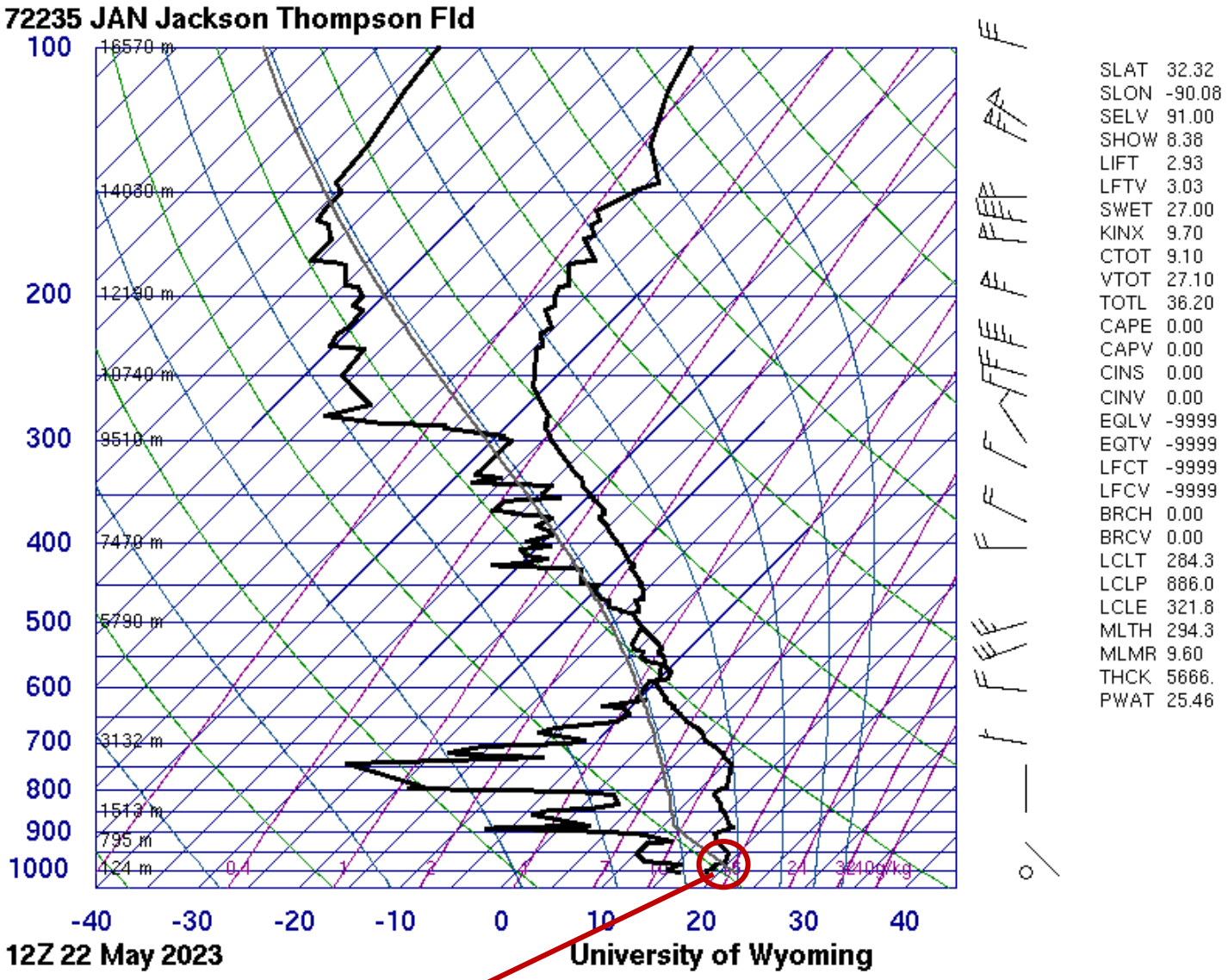
00z surface analysis (May 21st, 2023, at 7PM CDT), the start date for the exceptional event period for the Hattiesburg monitor, showing frontal passages, where northerly flow behind these frontal passages would transport Canadian wildfire smoke over the area.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/21/23	12.7	12.4	10	11.5	13.9	15.9	17.7	19.8	19.3	19.2	18.4	17.9	17.9	18.3	17.1	17.4	18	17.4	23.8	30.1	31.7	33	34.2	33.9	20.06	34.2

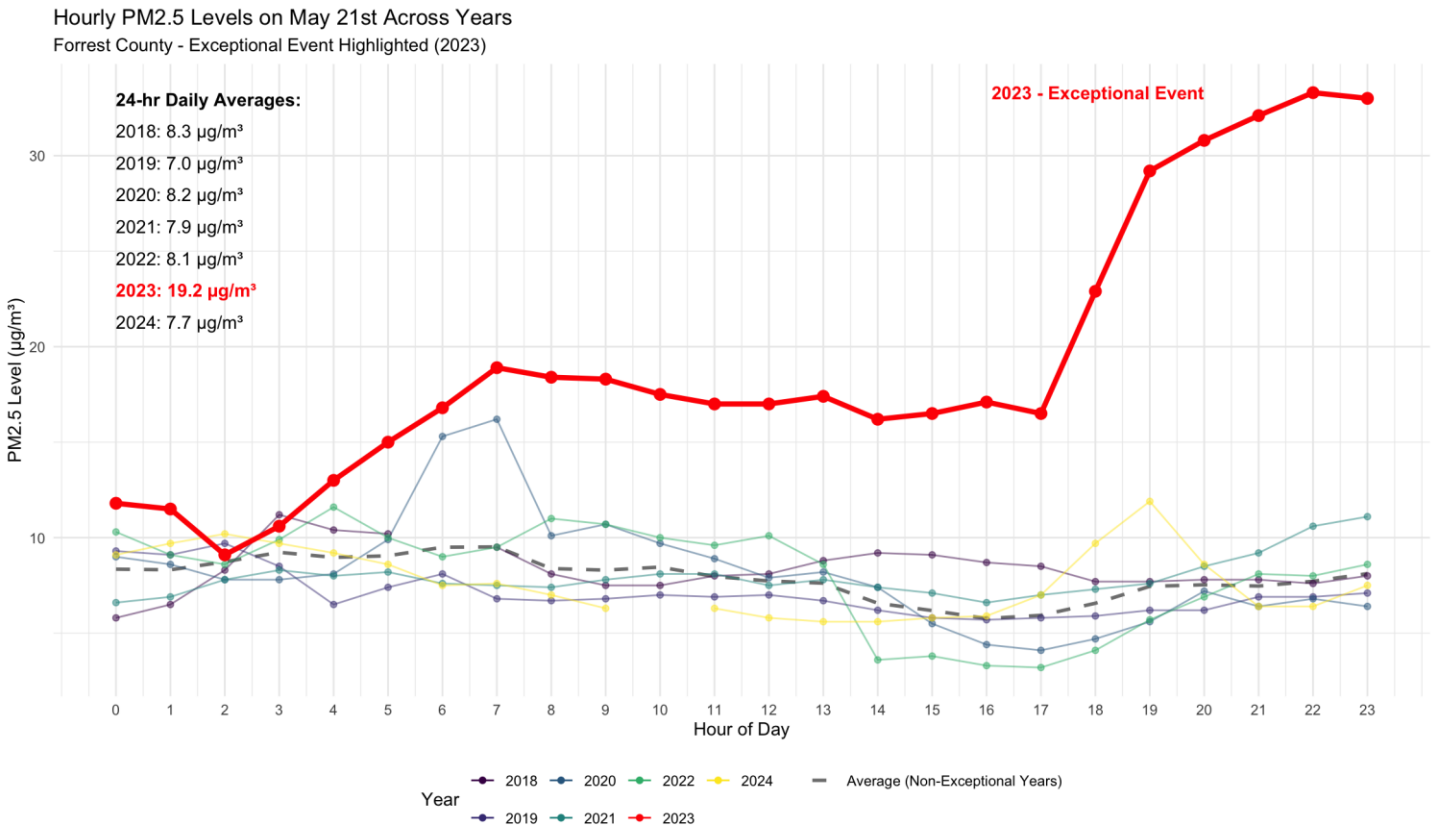
The hourly values in the image above show elevated PM2.5 levels during the day in the teens, as the numbers increased after the initial frontal boundary moved through during the previous day on May the 20th. After the secondary front moved through during the afternoon hours on May 21st, reinforcing, smoke laden Canadian, airmass, PM2.5 values spiked during the evening and overnight hours into the 30's. Transport in addition, to developing low level overnight nocturnal inversion, help trapped smoke near the surface, raising PM2.5 concentrations at the Hattiesburg monitor.



The AirNowTech Navigator image taken on, May 21st, 2023, above, the first day of the exceptional event, shows after the series of frontal passages, smoke began to transport, towards, and over the Hattiesburg monitor. 72-hour back trajectory overlay shows parcels at the lowest 10m and 50m level, the origin of the parcels from smoke laden airmass to the north, moving south, towards the Hattiesburg monitor.

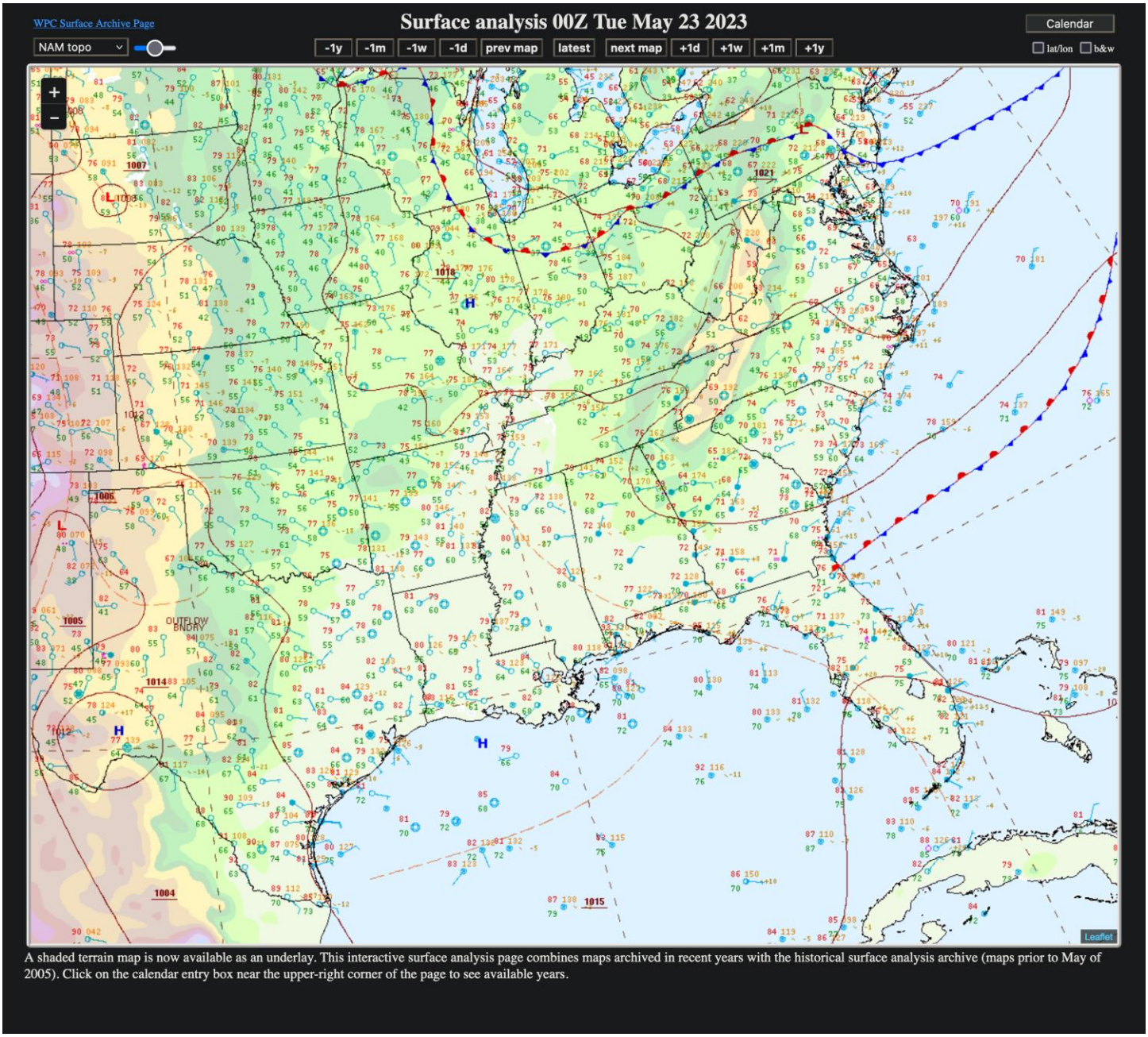


Morning sounding on May 22nd, 2022, shows low level nocturnal inversion that set up overnight trapping smoke near the surface, increasing PM2.5 concentrations at the Hattiesburg monitor.

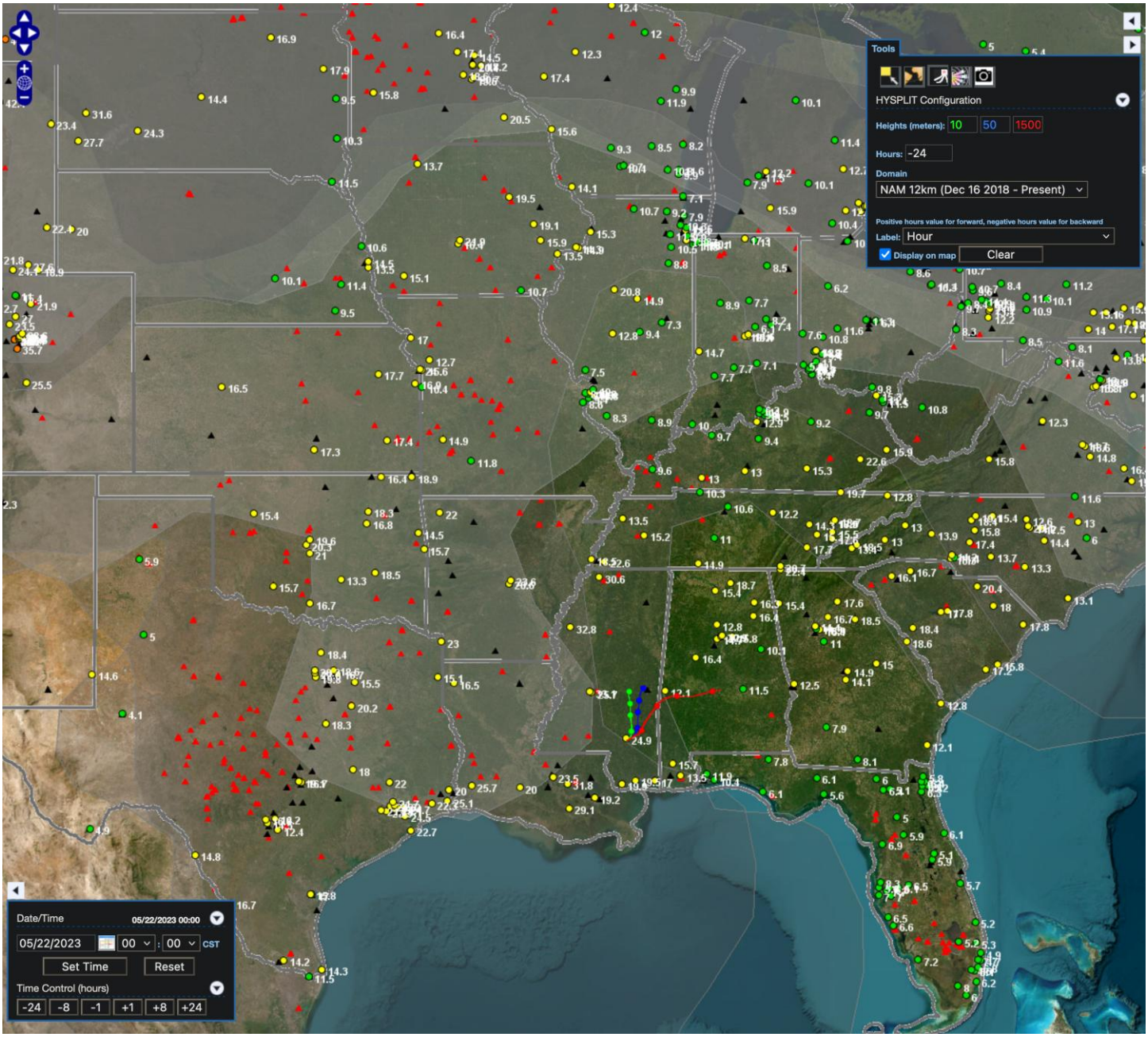


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot explicitly shows, increasing PM2.5 concentrations for this day in 2023, especially during the evening hours as smoke laden Canadian air-mass behind passage of surface front, increased PM2.5 values at the Hattiesburg monitor.

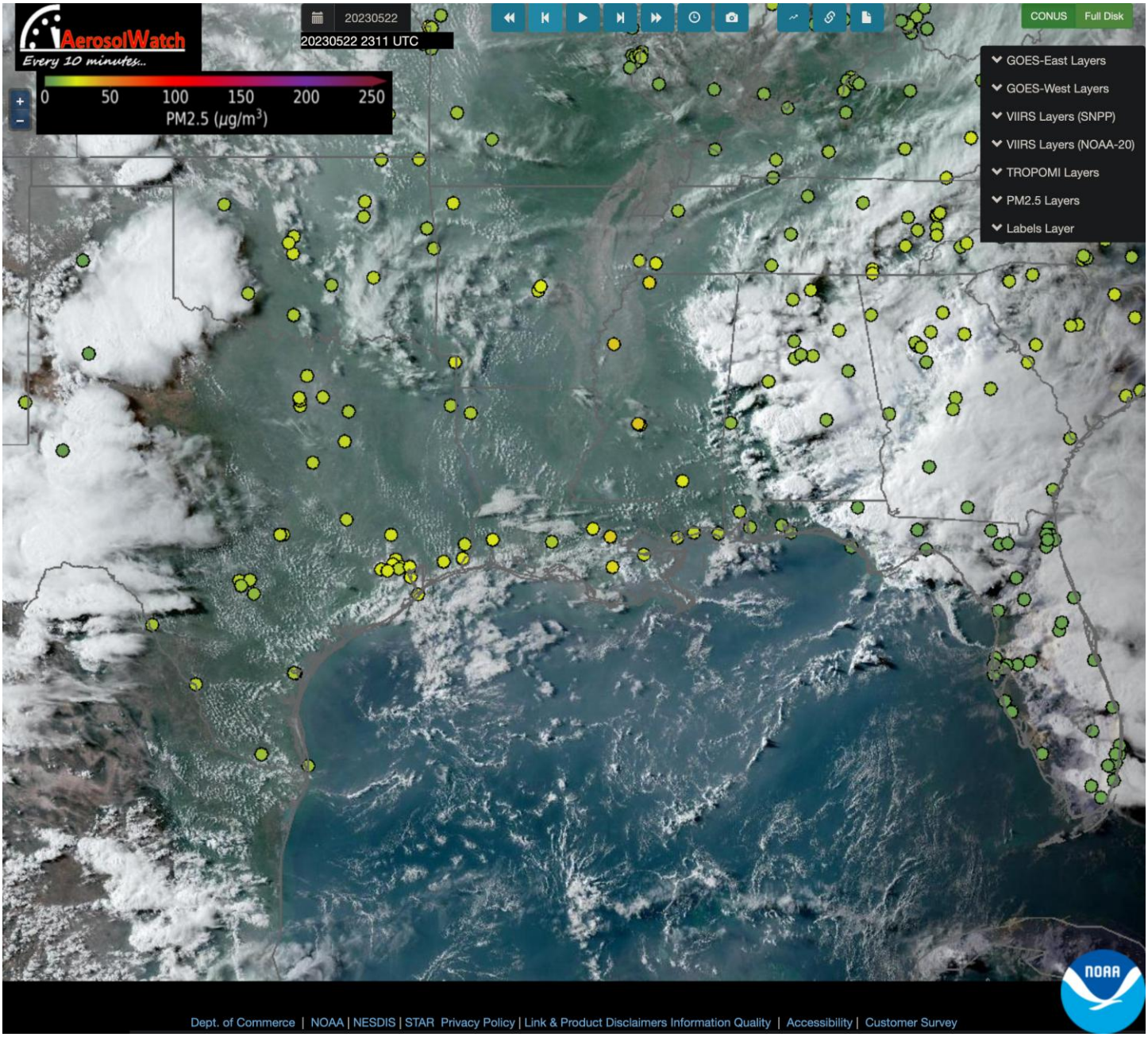
May 22nd: Expansive Surface High pressure continued to dominate the southeastern United States leading to very light and variable winds during the day accompanied with stagnant conditions, keeping much of the area entrenched in smoke laden Canadian airmass.



00z surface analysis (May 22nd, 2023, at 7PM CDT), showing High pressure leading to stagnant conditions across Mississippi and around the Hattiesburg monitor.



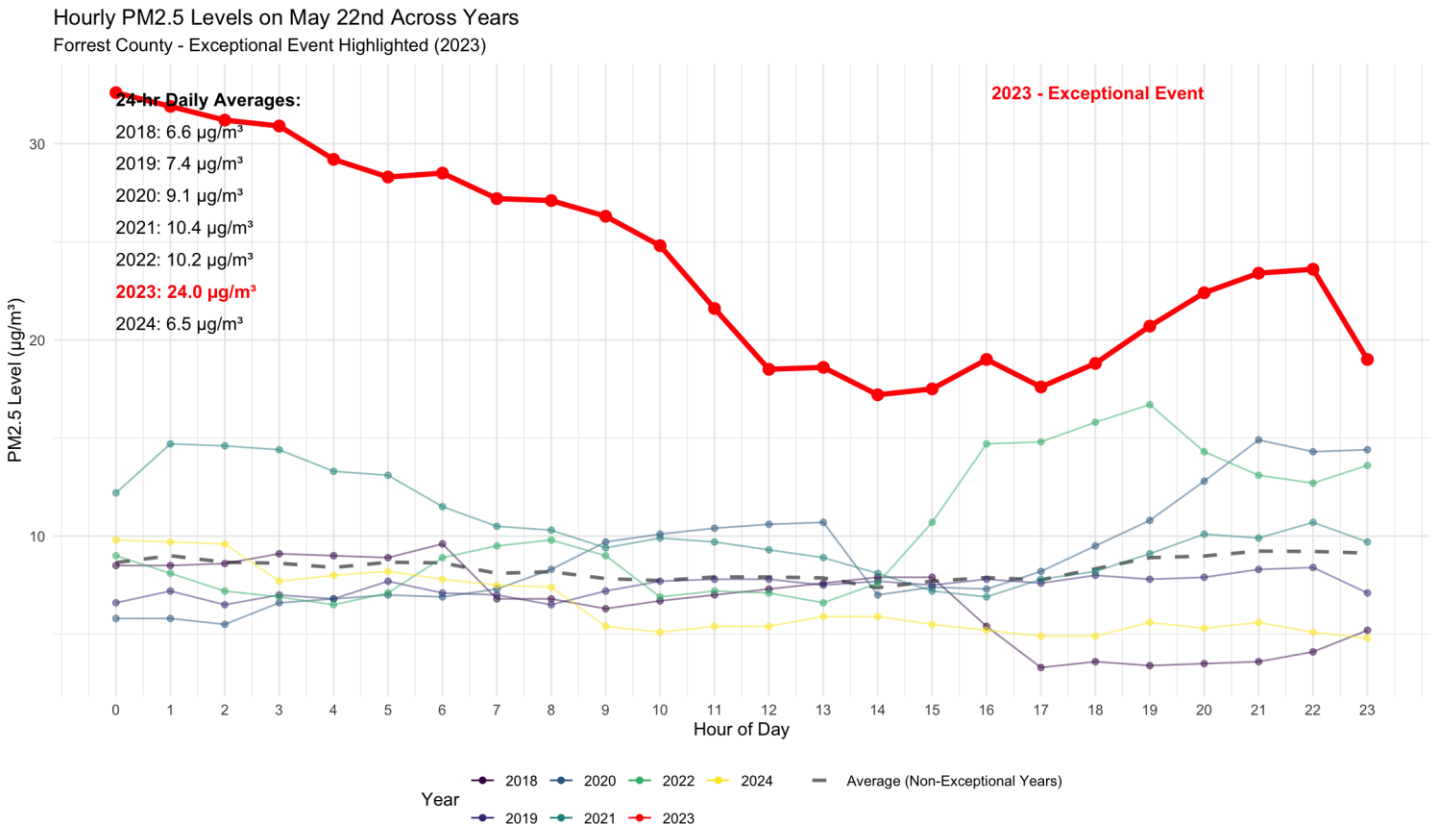
The AirNowTech Navigator image taken on, May 22nd, 2023, above shows elevated 24-hour PM2.5 values at the Hattiesburg monitor thanks to stagnant conditions as depicted by the 24-hour back trajectory, showing very little movement of the air parcels at 10m, 50m, and 1500m keeping the area entrenched in smoky air-mass transported southward from Canadian wildfires.



GOES East True Color image taken on May 22nd, 2023, at 2311UTC, showing expansive smoke shield covering the Gulf States that was transported southward from Canadian wildfires.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/22/23	33.5	32.8	32.1	31.8	31.1	30.2	29.4	28.1	28	27.2	25.7	22.5	19.4	19.5	18.1	18.4	19.9	18.5	19.7	21.6	23.3	24.3	24.5	19.9	24.98	33.5

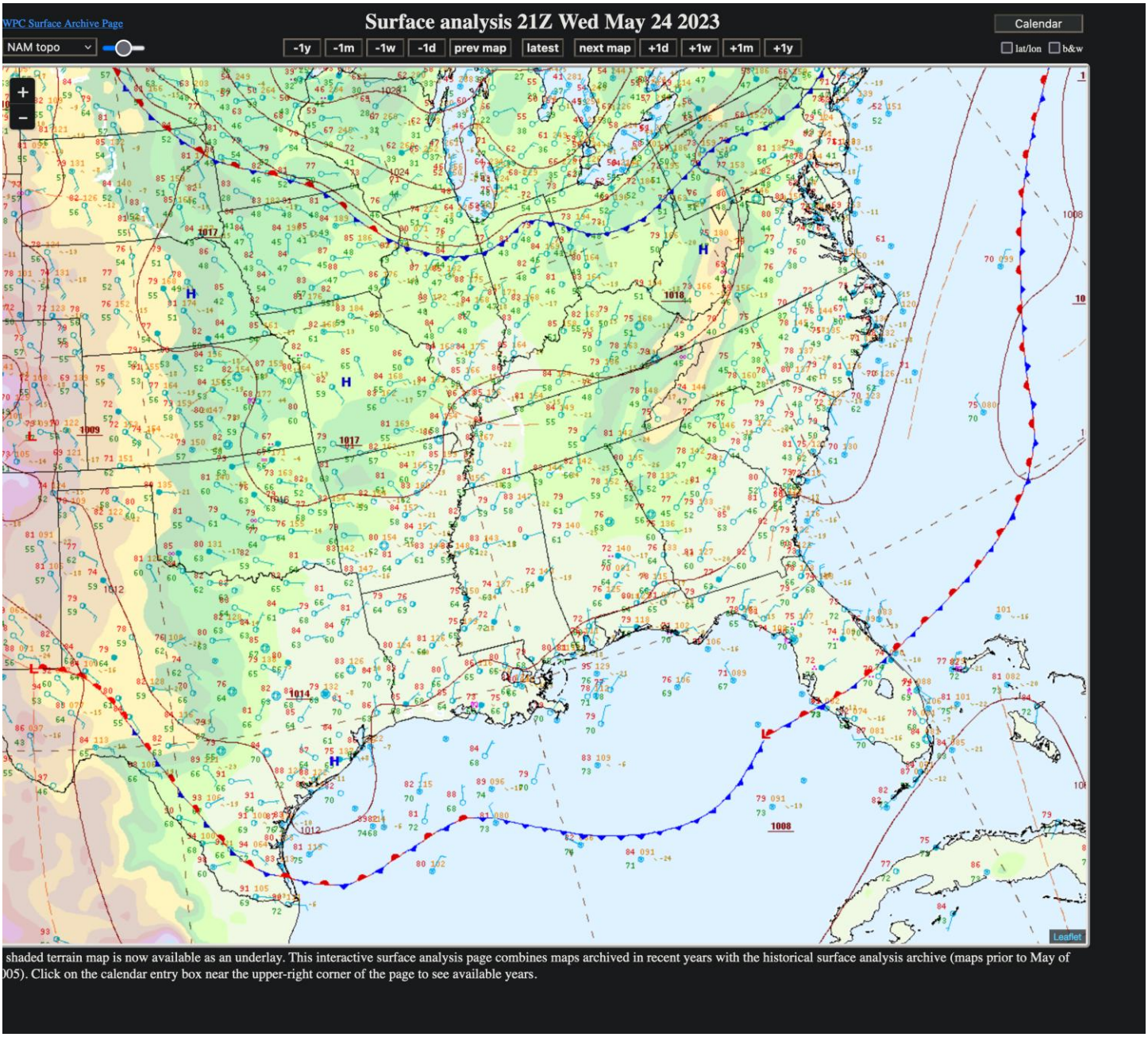
The hourly values at the Hattiesburg monitor in the image above show elevated PM2.5 levels throughout the day in response to thick Canadian smoke shield encompassing the southeastern United States, resulting in a 24-hour daily average of 24.98 at the Hattiesburg monitor.



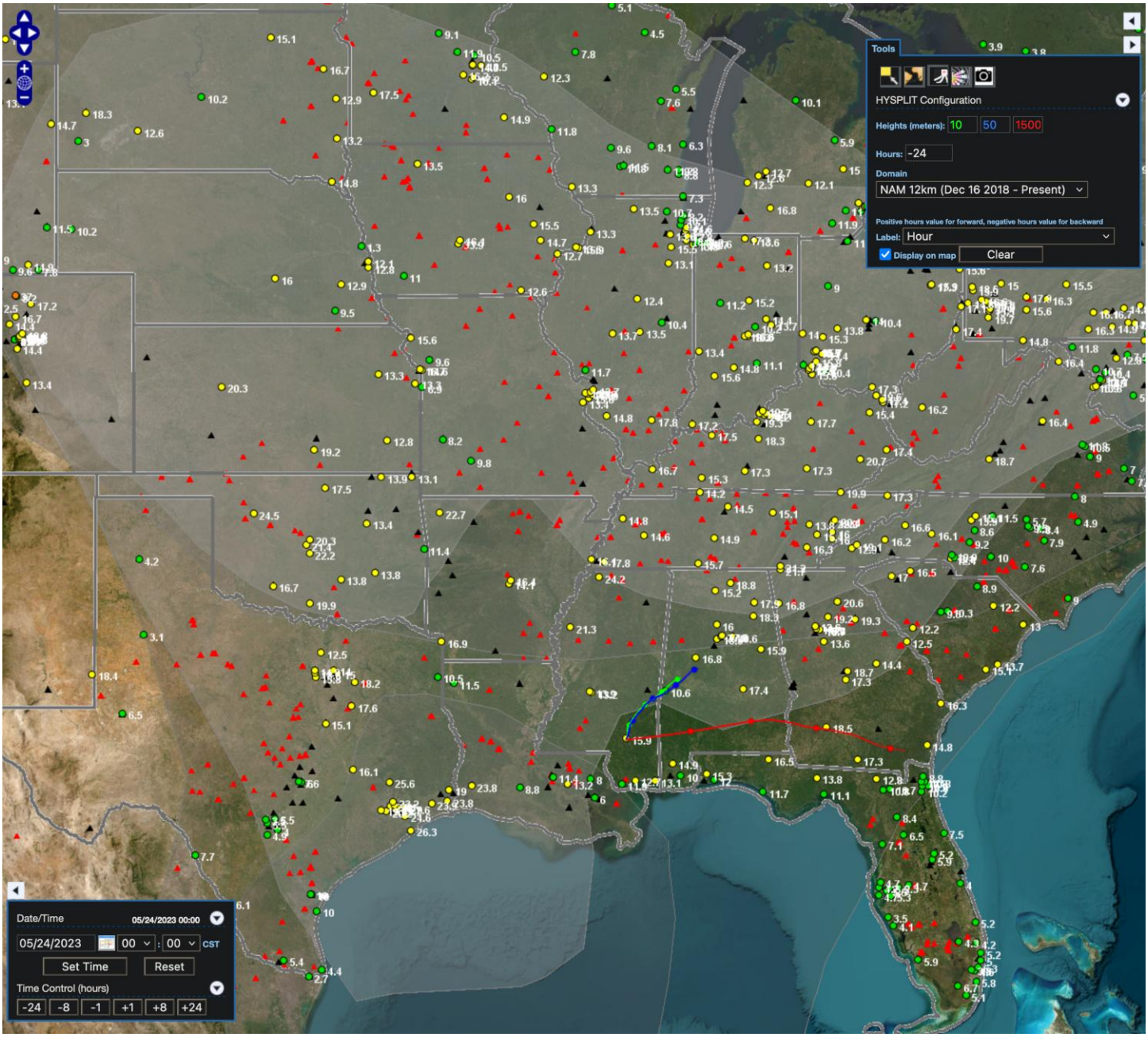
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass increased PM2.5 values at the Hattiesburg monitor.

May 25th: On May 23rd, PM2.5 values were reduced at the Hattiesburg monitor due to a stationary boundary along the Gulf Coast, accompanied by a low-pressure system centered over the Mississippi Coast, which aided in pollutant dispersion. By May 24th, a surface high-pressure system located in the upper Midwest began moving southward into the Mid-Mississippi Valley, nudging the stationary boundary southward into the Gulf of Mexico. This high-pressure system, moving southeastward, transported a new wave of Canadian wildfire smoke across the Midwest and Ohio River Valley into the southeastern United States, raising PM2.5 levels at the Hattiesburg monitor.

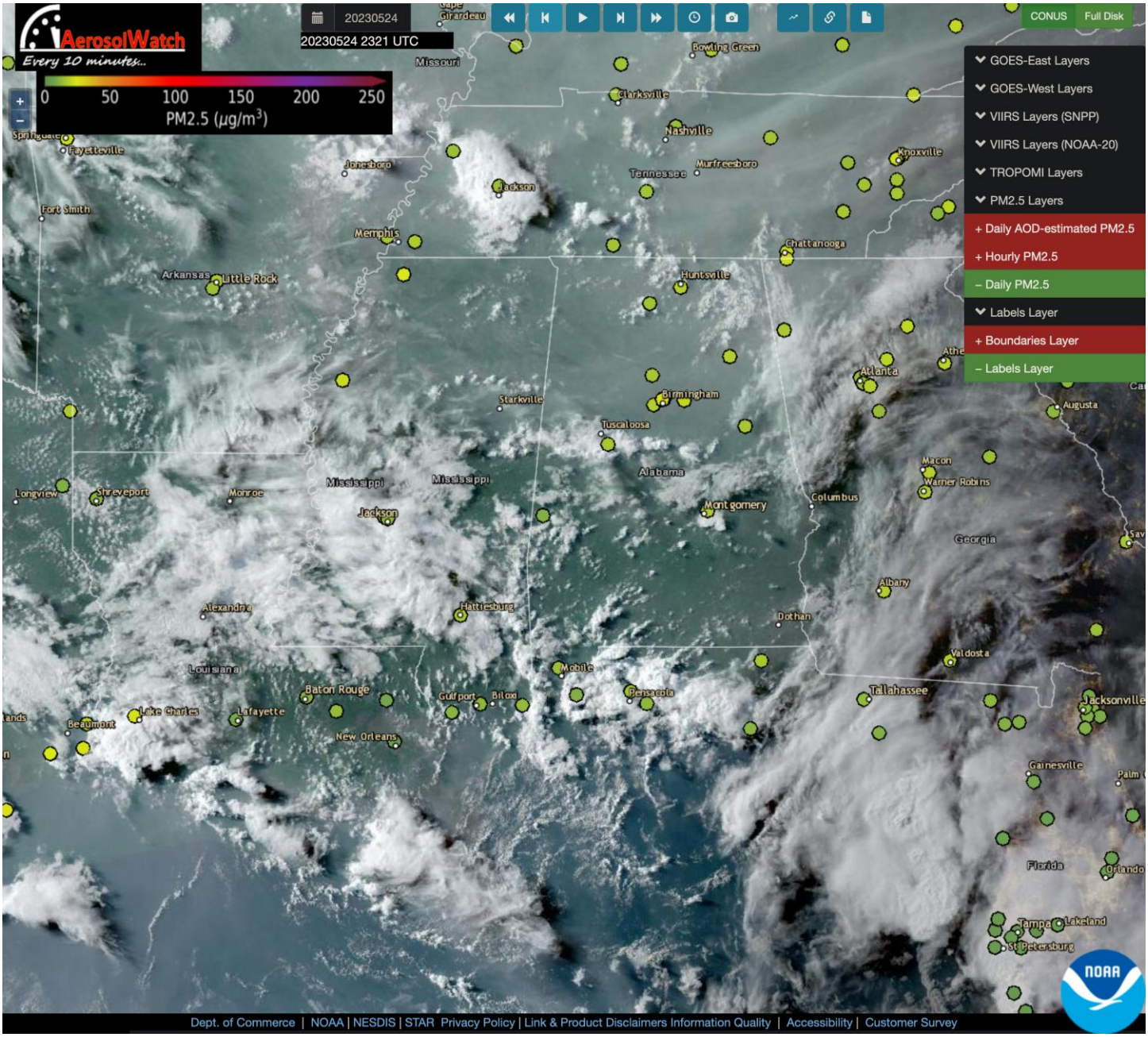
On May 25th, an upper-level trough across the Eastern United States helped push a frontal boundary southward into the southeast. Behind this front was a substantial amount of Canadian wildfire smoke, which further elevated PM2.5 levels across the southeast, including at the Hattiesburg monitor.



21z surface analysis (May 24th, 2023, at 4PM CDT), showing High pressure located over Missouri, moving, southward, pushing previous stationary boundary that was hung up along the MS Coast, southward, as northerly flow around the High pressure began issuing in new batch of Canadian wildfire smoke into the Midwest, Ohio River Valley, and southeastern United States.



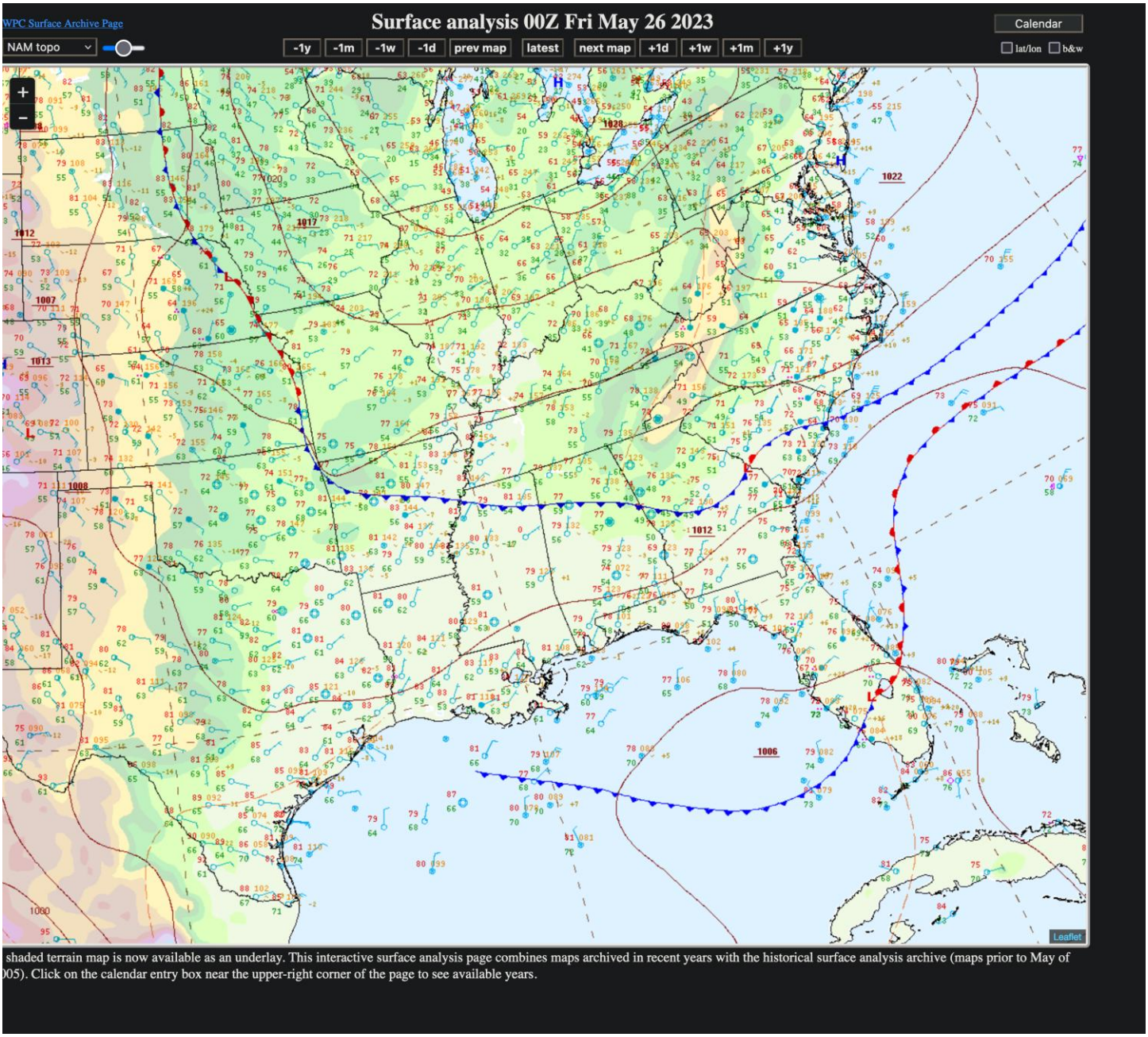
The AirNowTech Navigator image taken on, May 24th, 2023, above shows large batch of Canadian wildfire smoke over the Upper Midwest, Midwest, Ohio River Valley, Mid-Mississippi Valley, entering into the southeastern United States, elevating PM2.5 values into the moderate category.



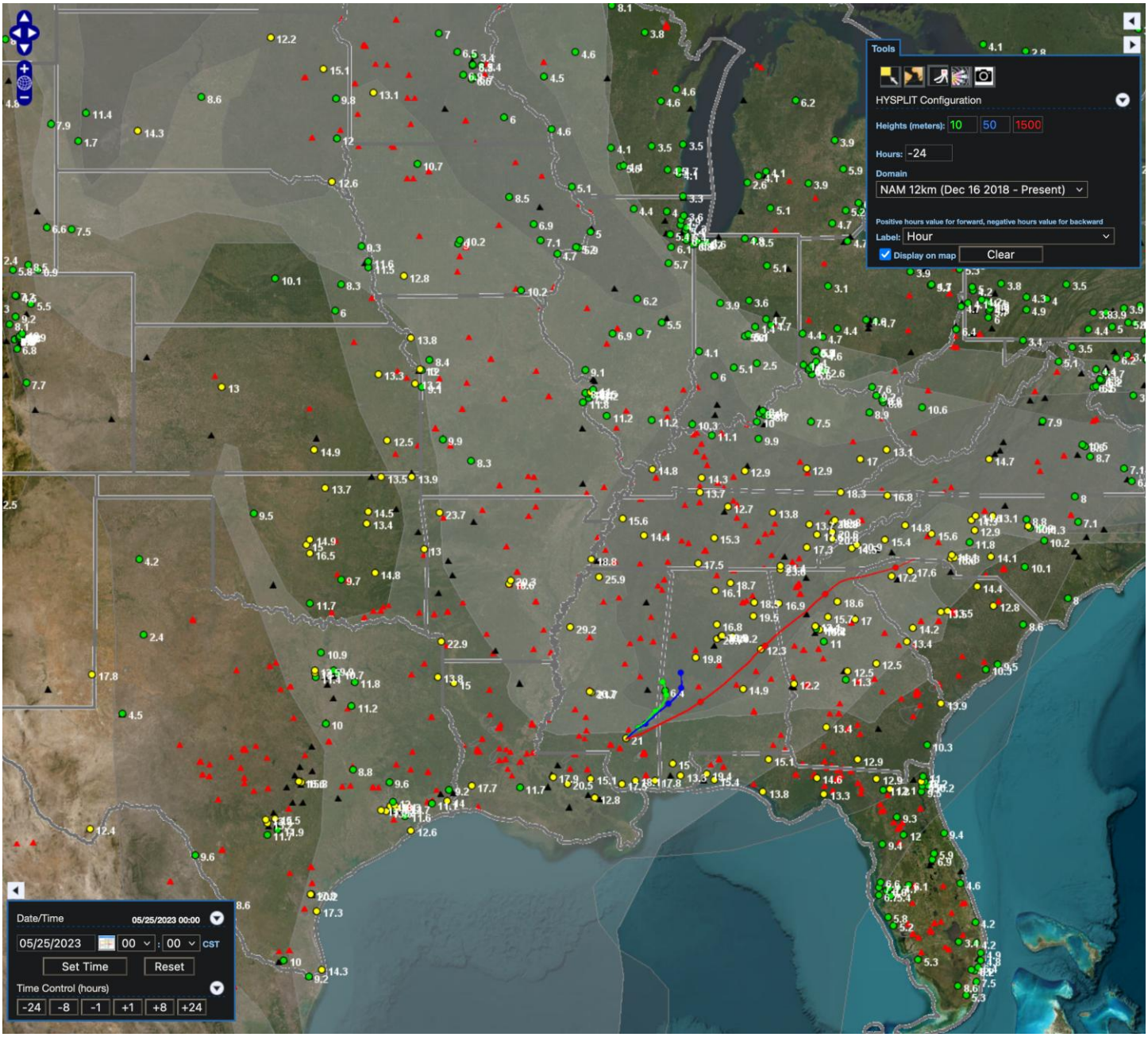
GOES East True Color image taken on May 24th, 2023, at 2321UTC, showing expansive smoke shield from Canadian wildfires over Tennessee, Arkansas, northern Mississippi, Alabama, and Georgia as it was making its way southward into the southeastern United States.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/24/23	14.7	17.1	19.2	19.7	18.1	17.9	18.4	18.7	18.1	17.7	16.2	15	12.9	14.3	13.9	12	10.9	11.4	13	14.4	15.5	17.6	19.2	17.7	15.98	19.7

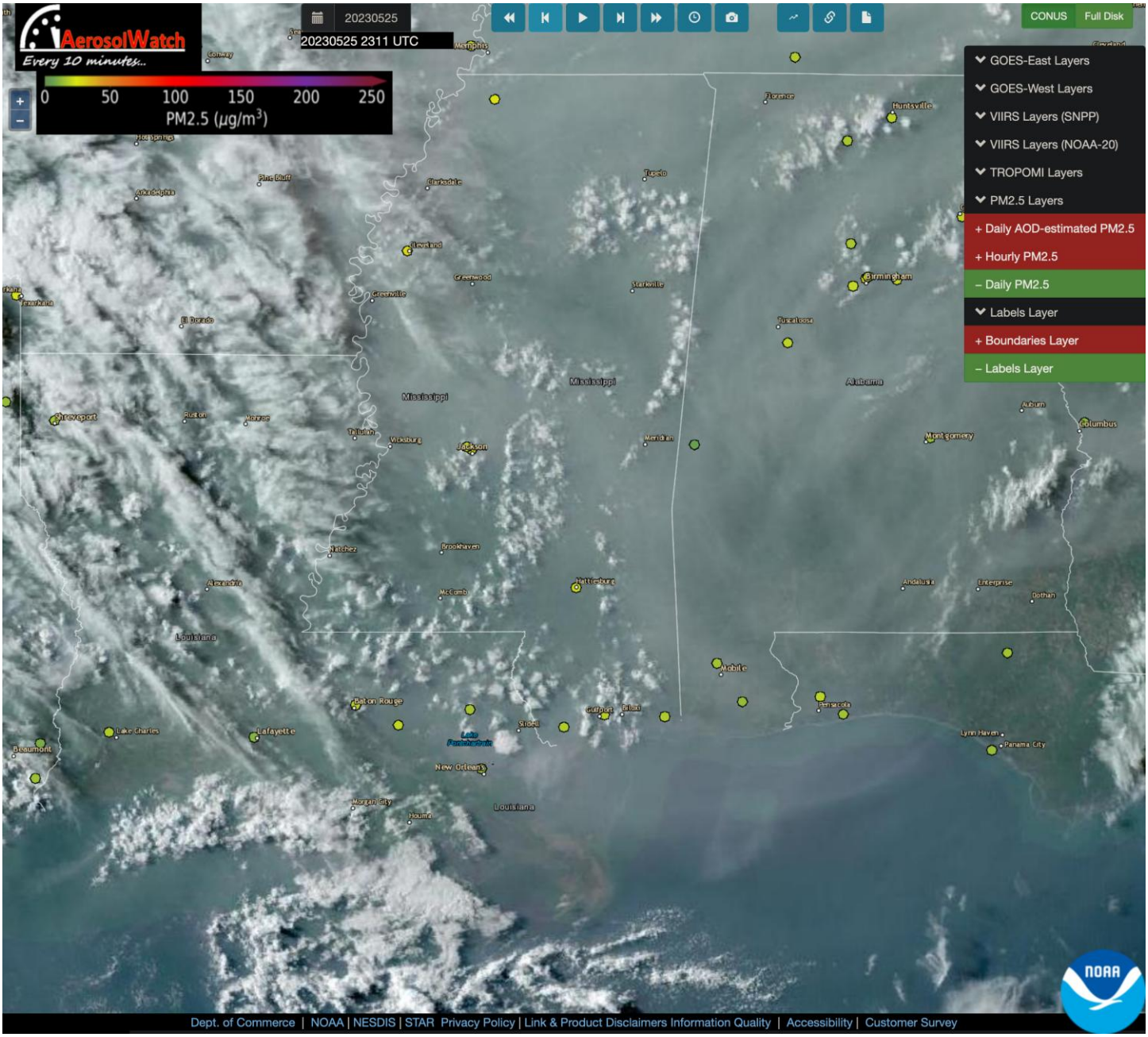
The hourly values at the Hattiesburg monitor in the image above show elevated PM2.5 values as transport from Canadian wildfires are entering into the southeastern United States.



00Z surface analysis (May 25th, 2023, at 7 PM CDT) shows a cold front moving through the Tennessee Valley and entering the southeastern United States, followed by a large area of Canadian wildfire smoke.



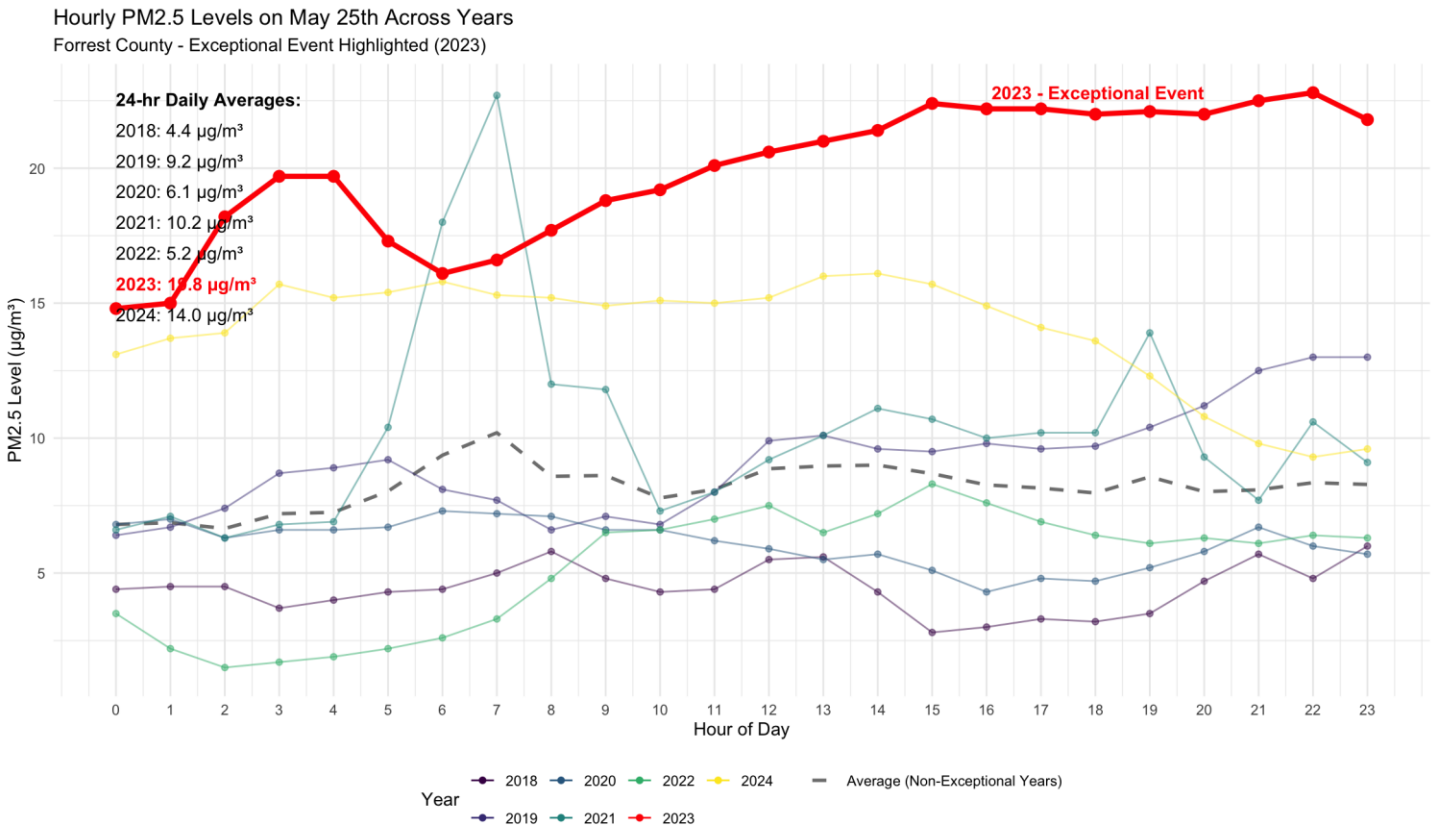
The AirNowTech Navigator image taken on, May 25th, 2023, above shows large batch of moderate to heavy Canadian wildfire smoke moving into the southeastern United States, just ahead and behind surface frontal boundary that is moving through the southeast, elevating PM2.5 values. 24-Hour back trajectories showing parcels at the lowest 10m and 50m coming from the north, indicating Canadian wildfire smoke moving towards the Hattiesburg monitor, resulting in a PM2.5 daily average of 21ug/m^3.



GOES East True Color image taken on May 25th, 2023, at 2311UTC, showing expansive smoke shield from Canadian wildfires encompassing most of Mississippi and Alabama, increasing PM2.5 values.

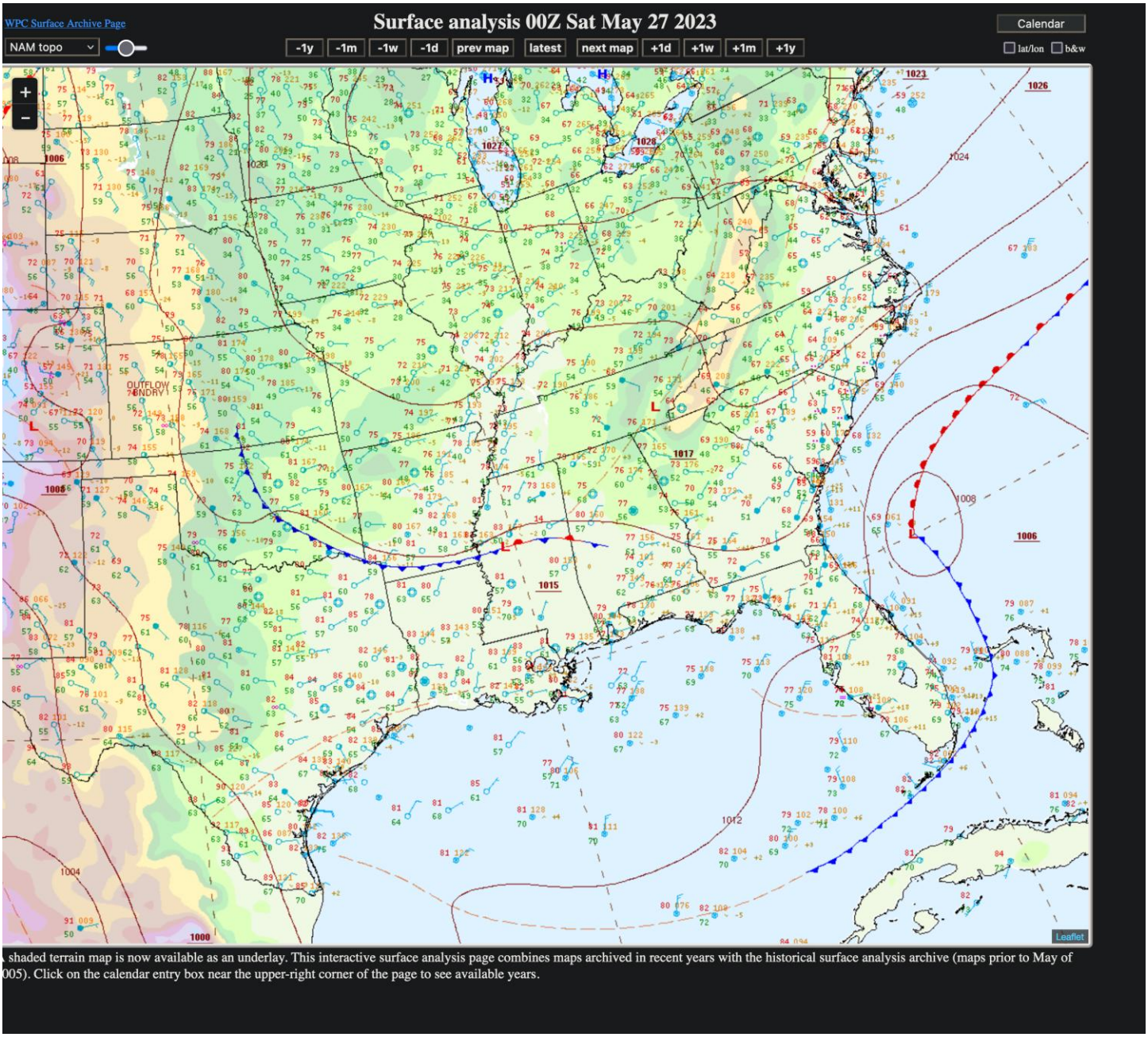
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/25/23	16.7	16.9	20.1	21.6	21.6	19.2	18	17.5	18.6	19.7	20.1	21	21.5	21.9	22.3	23.3	23.1	23.1	22.9	23	22.9	23.4	23.7	23.7	21.08	23.7

The hourly values at the Hattiesburg monitor in the image above show PM2.5 values in the upper teens and twenties as transport from Canadian wildfires encompass the southeastern United States.

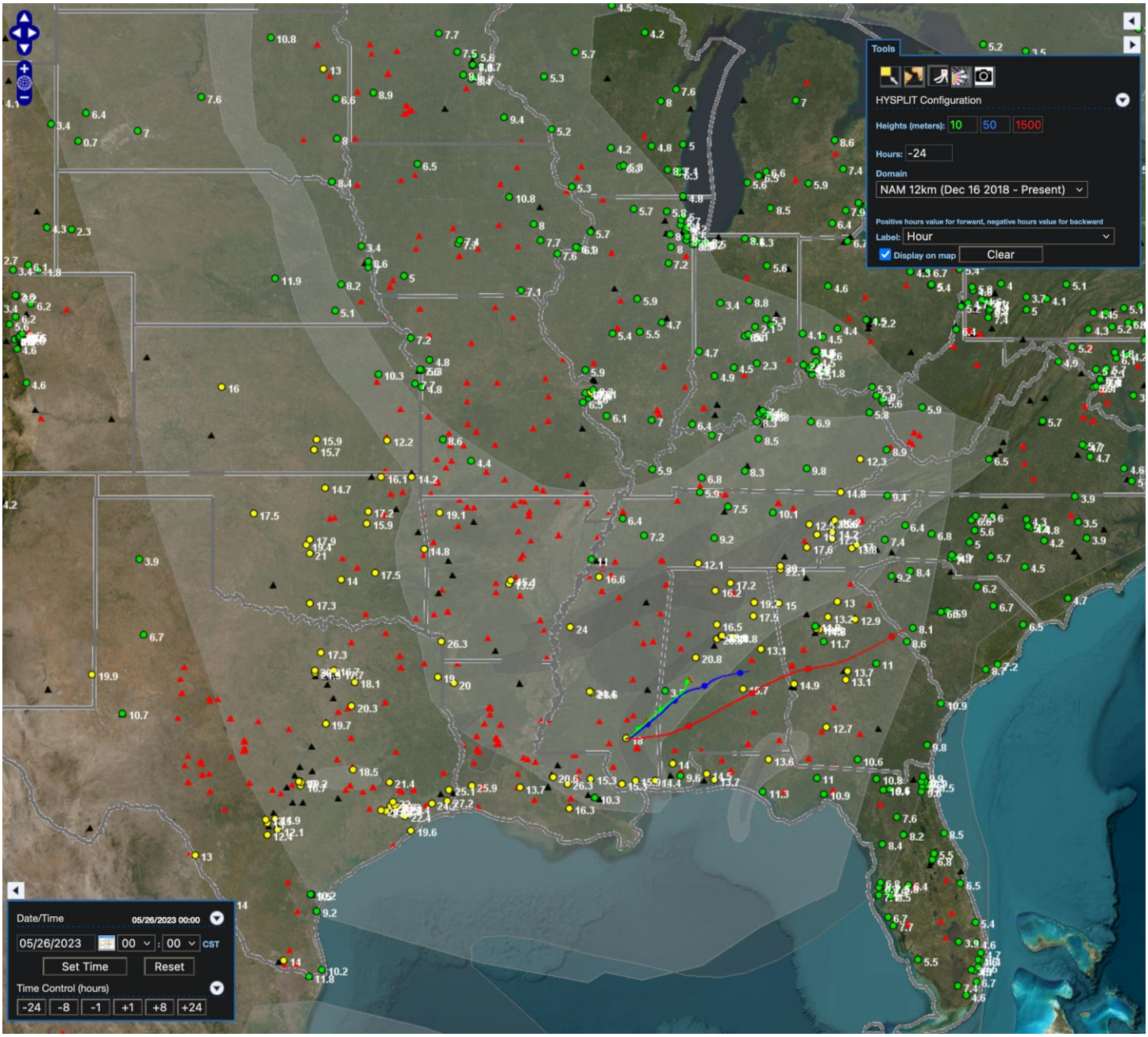


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor.

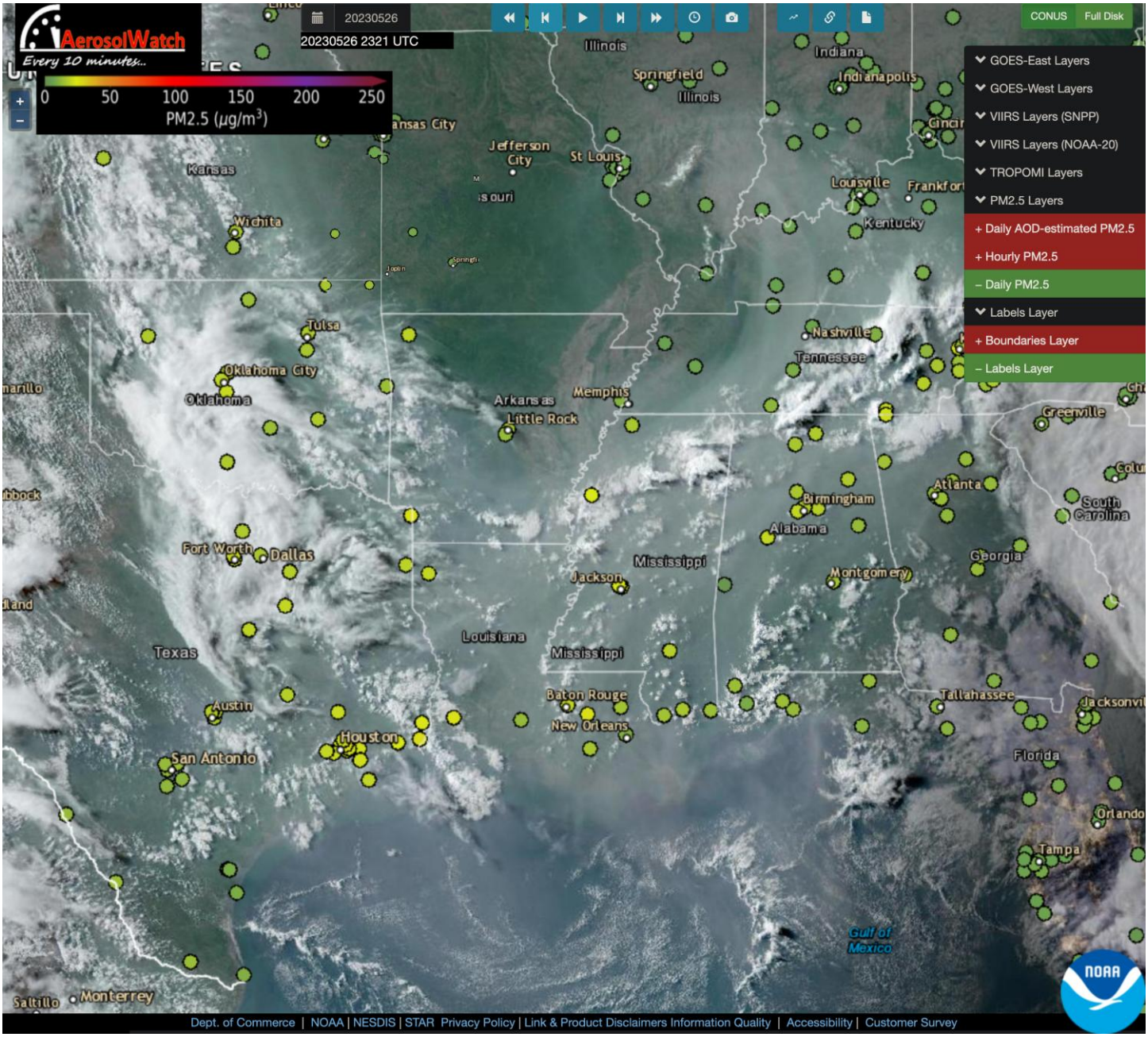
May 26th: Two weather systems kept smoke from Canadian wildfires in place over the southeastern United States. The first was a large surface high-pressure system located over the Great Lakes region, and the second was a low-pressure system just off the Florida, Georgia, and South Carolina coastlines. The anticyclonic flow of the high-pressure system and the cyclonic flow associated with the low-pressure system directed the majority of the Canadian smoke-filled air mass over the Lower Mississippi Valley.



00z surface analysis (May 26th, 2023, at 7PM CDT) showing expansive High-pressure system over the Great Lakes Region and Low-pressure system of the Florida, Georgia coastline, that would help steer the Canadian wildfire smoke into the Lower Mississippi River Valley.



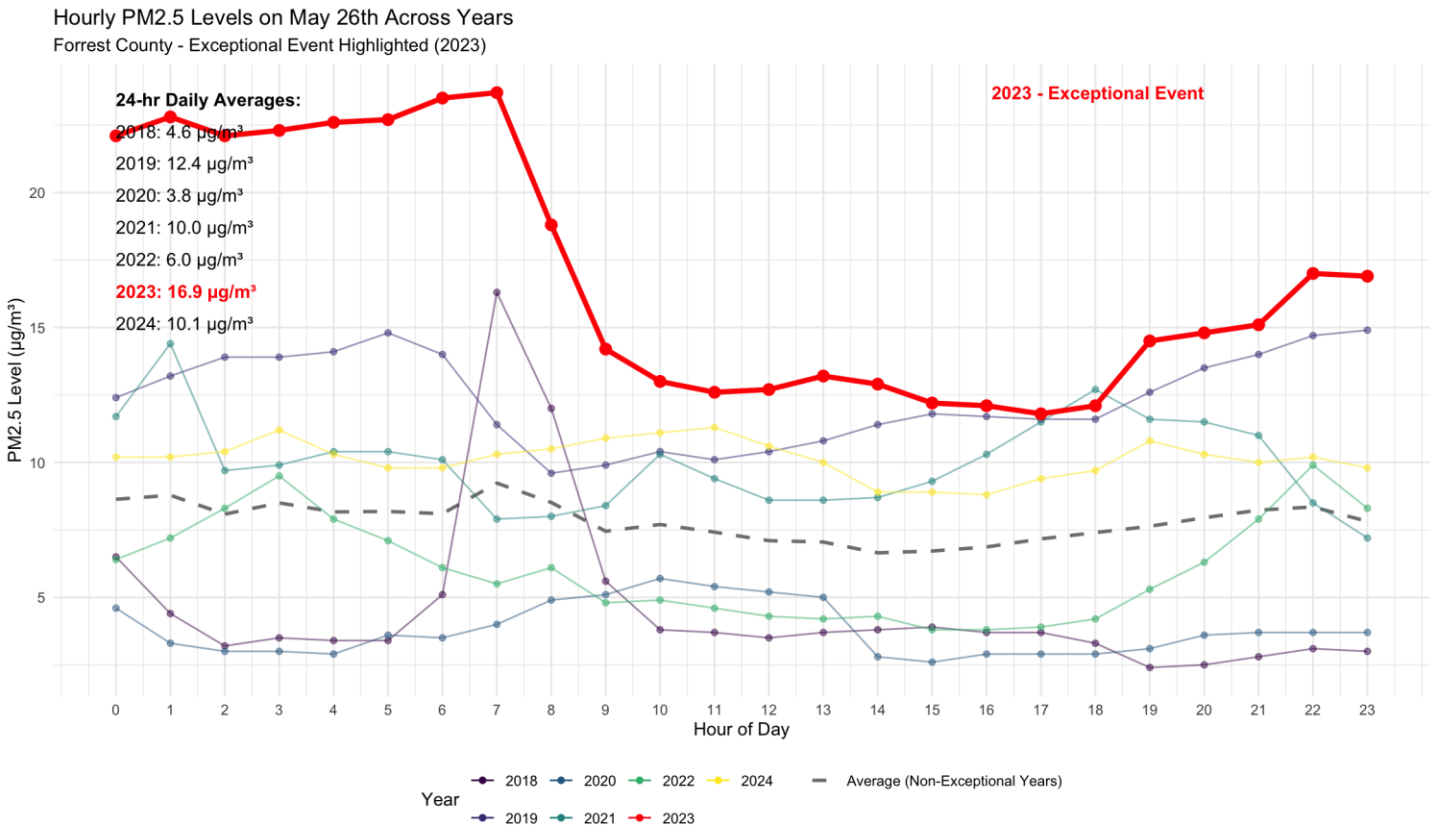
The AirNowTech Navigator image taken on, May 26th, 2023, above shows the large batch of moderate to heavy Canadian wildfire smoke over the Gulf States, increasing daily PM2.5 values well into the moderate category. 24-hour back trajectories showing parcels at the lowest 10m and 50m coming from the northeast, indicating Canadian wildfire smoke continuing to move towards the Hattiesburg monitor, resulting in a PM2.5 daily average of 18ug/m^3.



GOES East True Color image taken on May 26th, 2023, at 2321UTC, showing expansive smoke shield from Canadian wildfires encompassing most of Lower Mississippi River Valley, increasing PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	05/26/23	24	24.7	24	24.2	24.5	24.6	25.4	24.6	19.7	15.1	13.9	13.5	13.6	14.1	13.8	13.1	13	12.7	13	15.4	15.7	16	17.9	17.8	18.1	25.4

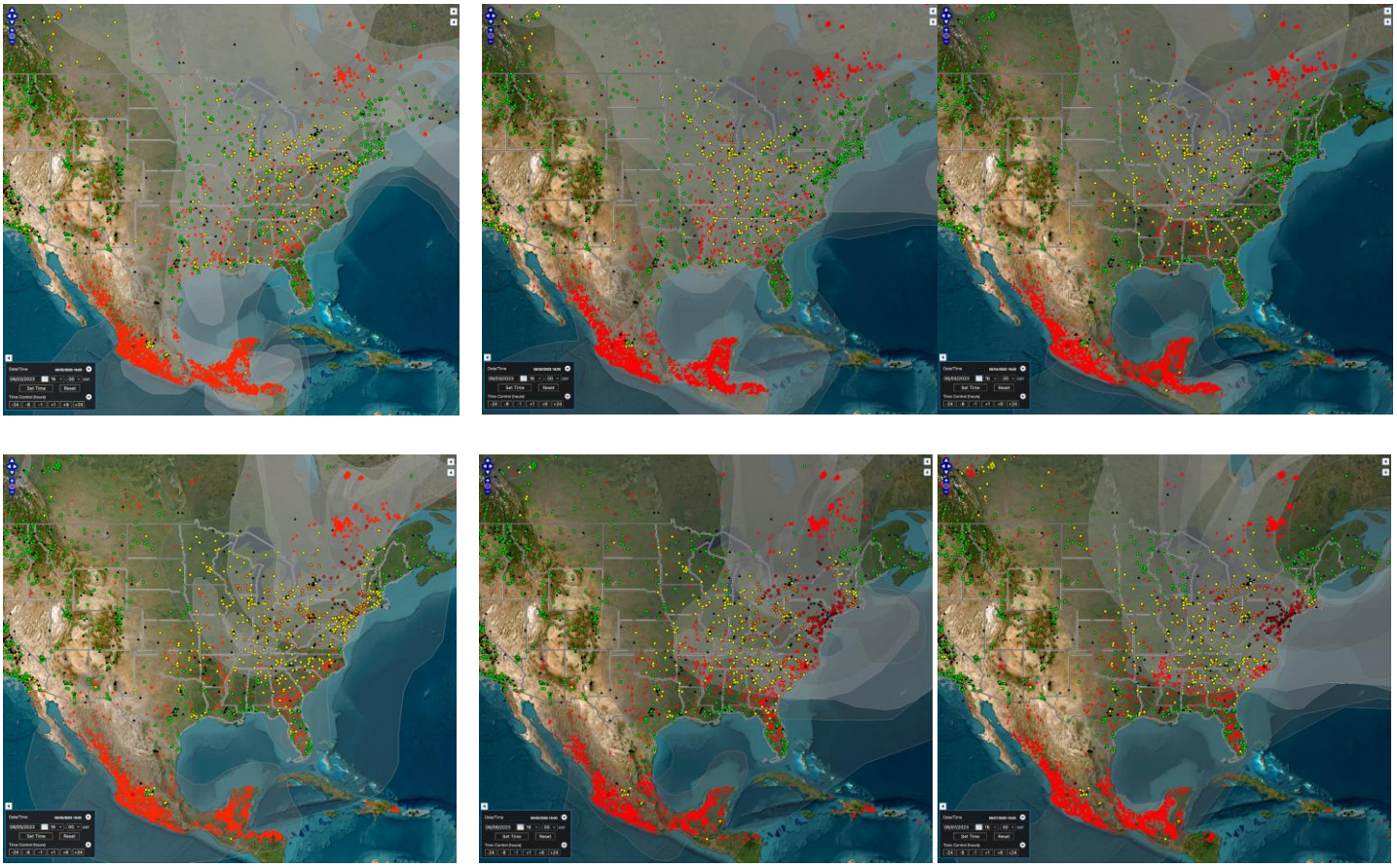
The hourly values at the Hattiesburg monitor in the image above show PM2.5 values in the teens and twenties as transport from Canadian wildfires encompass the Lower Mississippi River Valley.

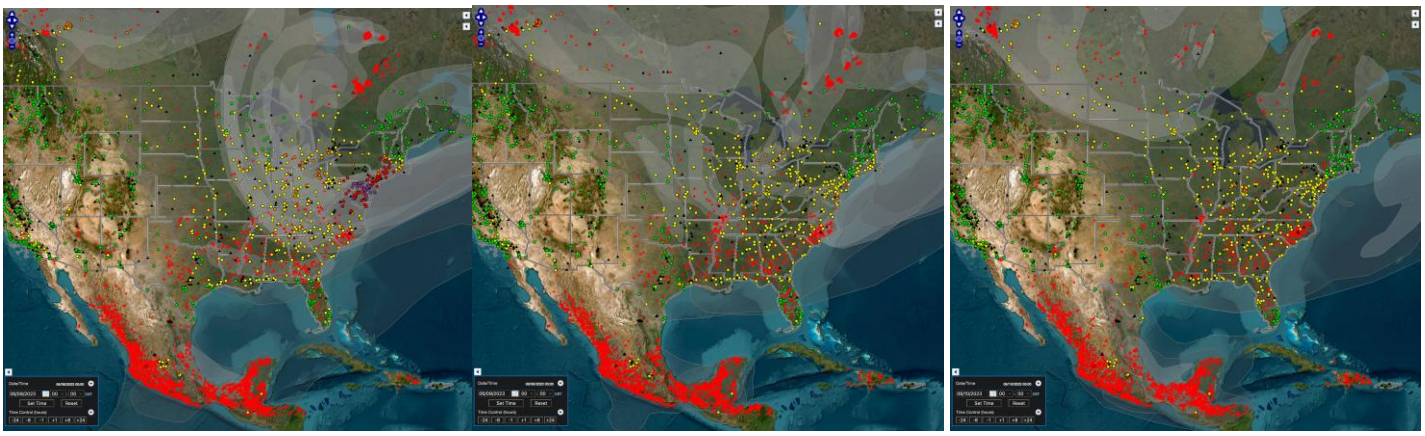


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor.

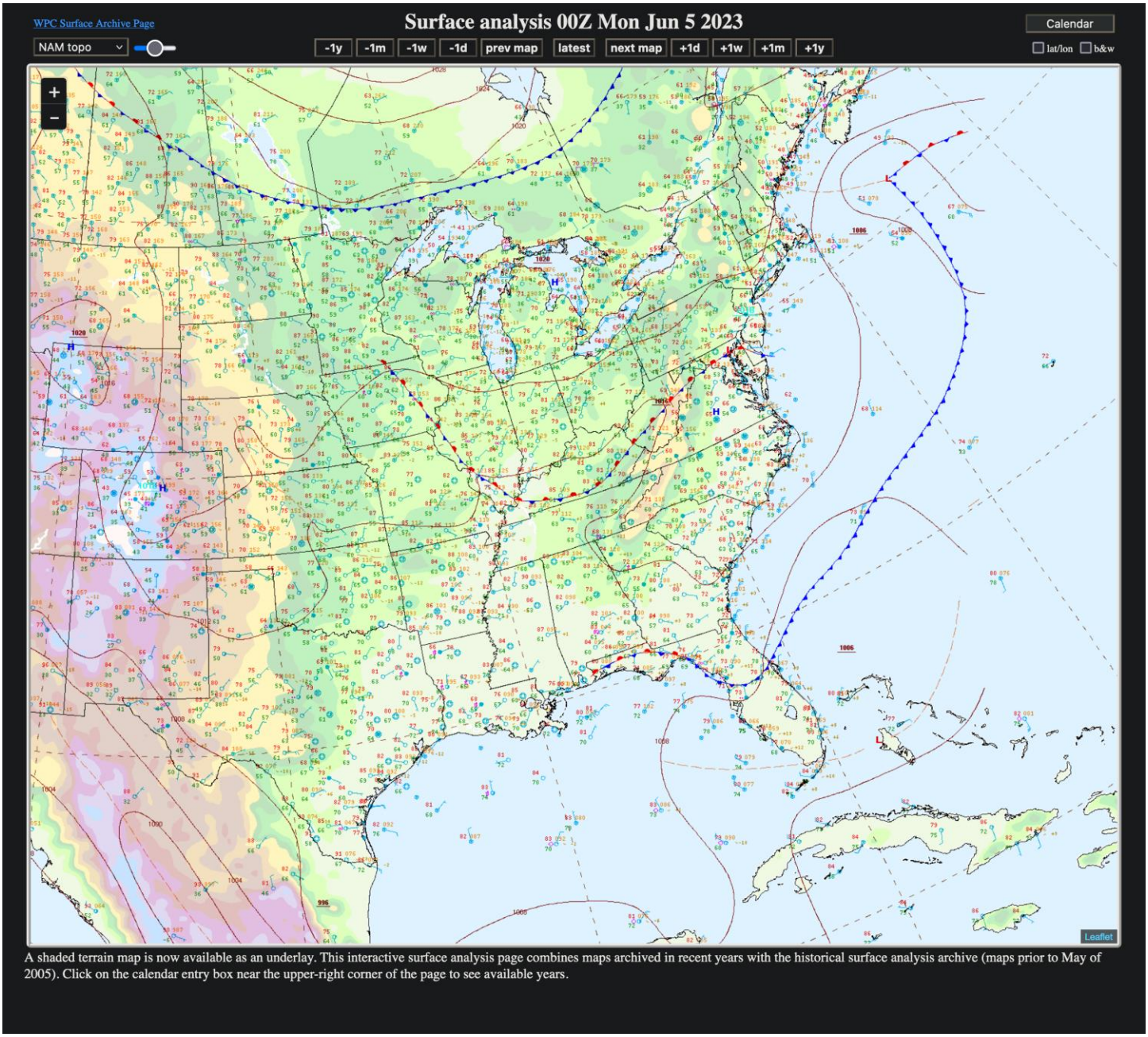
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 9 – 10, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	18.5, 17.2	2, 3	Canadian Wildfire C Exceptional Event Demonstration: June 9 - 10, 2023

Synopsis: Days leading up to June 9th and 10th Canadian wildfire exceptional event for the Hattiesburg monitor, there were numerous fires in the province of Quebec Canada to the north of New York State. These fires put out a great deal of smoke that eventually filtered down into the United States over the 1st half of June aided by a serious of surface fronts that moved through the eastern half of the United States transporting the smoke deep into the southern United States.

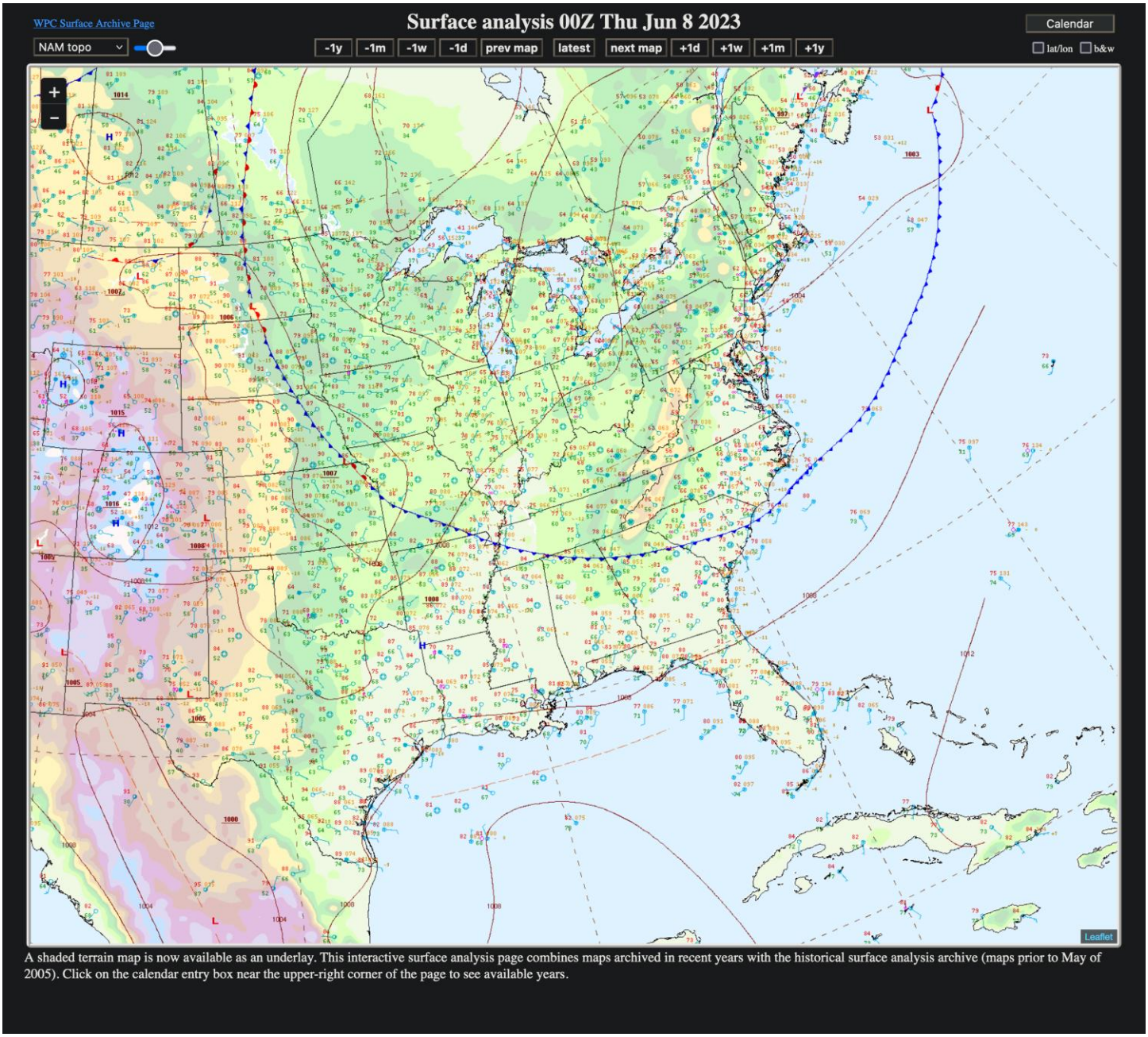




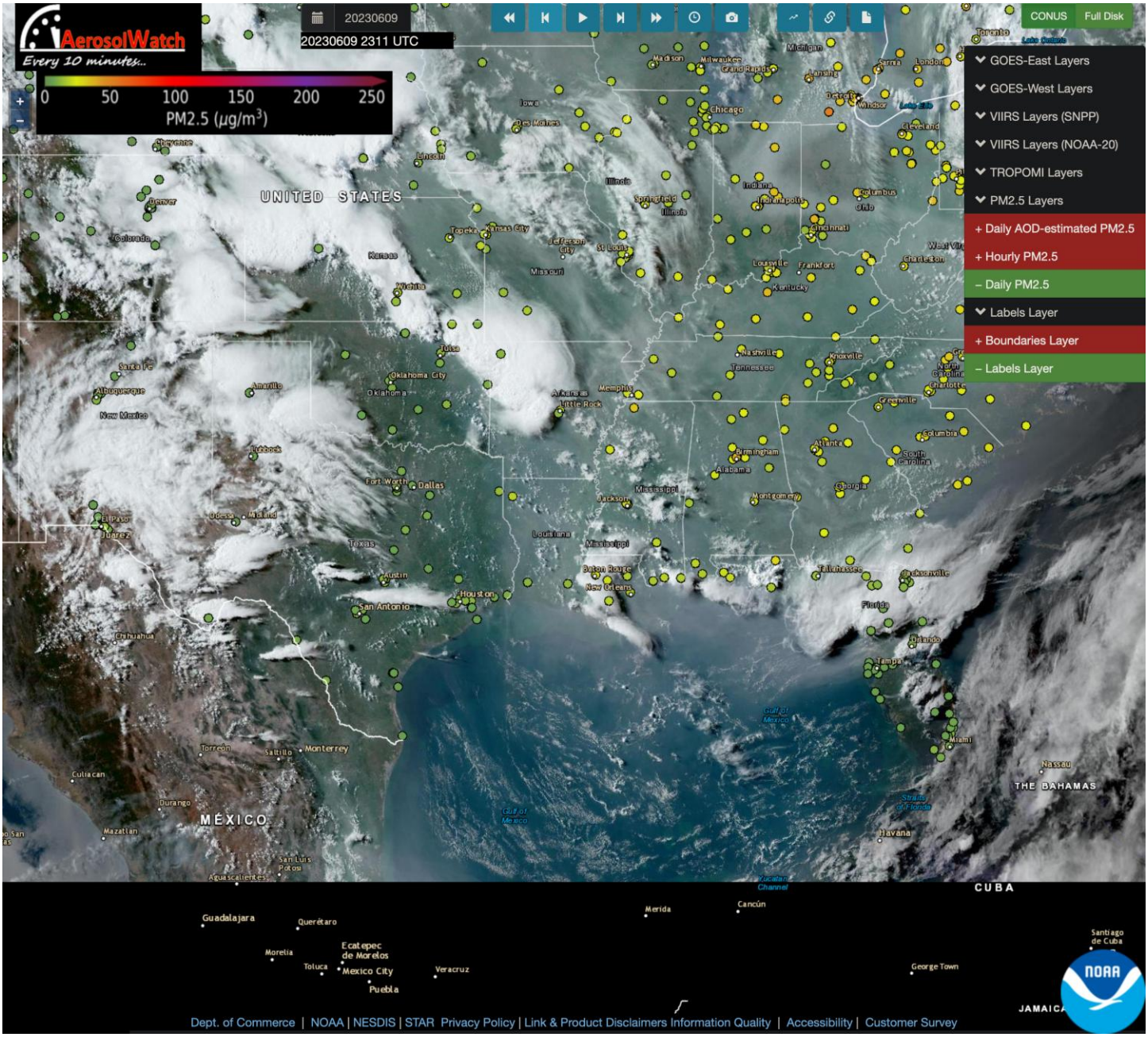
Series of AirNowTech Navigator image taken from June 2nd, 2023, through June 10th, 2023, show the progression of smoke from the Canadian wildfires in Quebec, transporting into the northeastern United States, the Ohio River Valley, and eventually into the Eastern and southeastern portions of the United States. Transport of the smoke into the United States was aided by frontal boundaries dropping down from Canada, helping transport smoke from the Canadian wildfires, deep into the Eastern United States, increasing PM2.5 values.



00z surface analysis (June 4th, 2023, at 7PM CDT) showing a series of cold fronts moving from north to south across the eastern half of the United States, helping transport wildfires smoke from the Canadian fires in Quebec down into the United States.



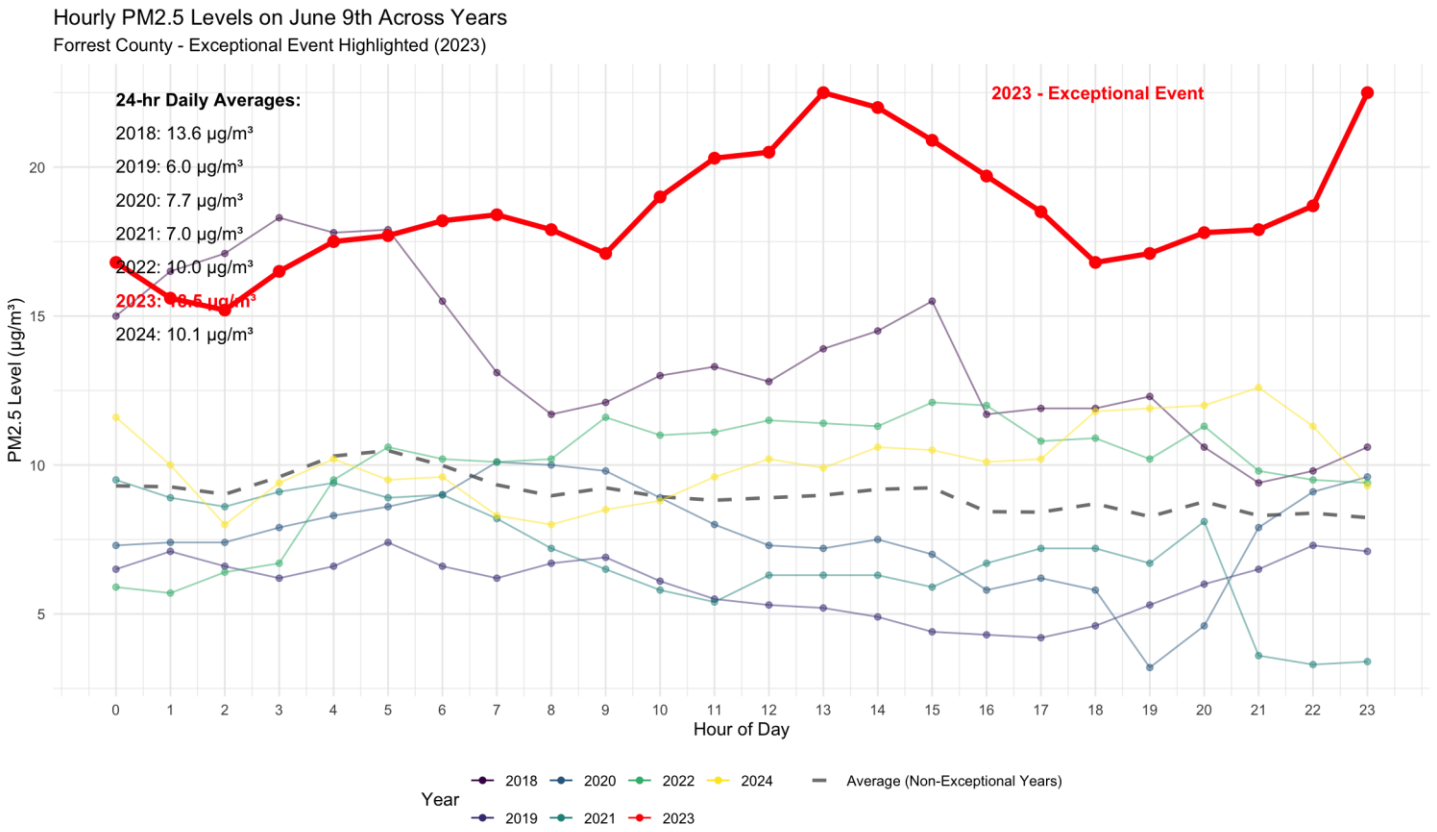
00z surface analysis (June 7th, 2023, at 7PM CDT) showing a cold front moving through the Tennessee River Valley, where this front will be the one to transport smoke from the Canadian Wildfires in Quebec, deep into the southeast, elevating PM2.5 values.



GOES East True Color image taken on June 9th, 2023, at 2311UTC, showing expansive smoke shield from Canadian wildfires in Quebec encompassing the eastern half of the United States, increasing PM2.5 values.

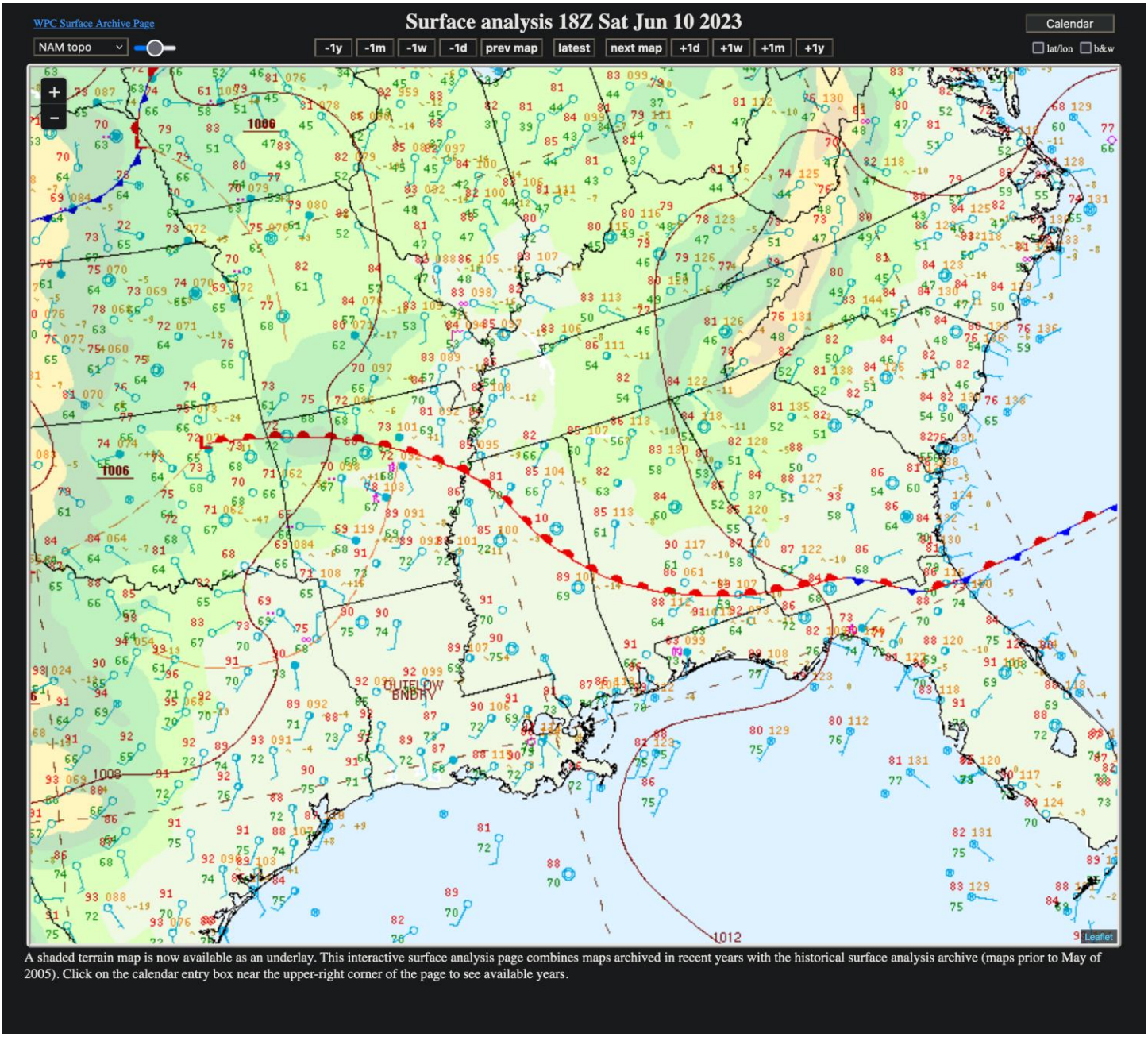
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/09/23	17.7	16.5	16.1	17.4	18.4	18.6	19.1	19.3	18.8	18	19.9	21.2	21.4	23.4	22.9	21.8	20.6	19.4	17.7	18	18.7	18.8	19.6	23.4	19.45	23.4

The hourly values at the Hattiesburg monitor in the image above show PM2.5 values in the teens and twenties as transport from Canadian wildfires affect the Hattiesburg PM2.5 monitor.

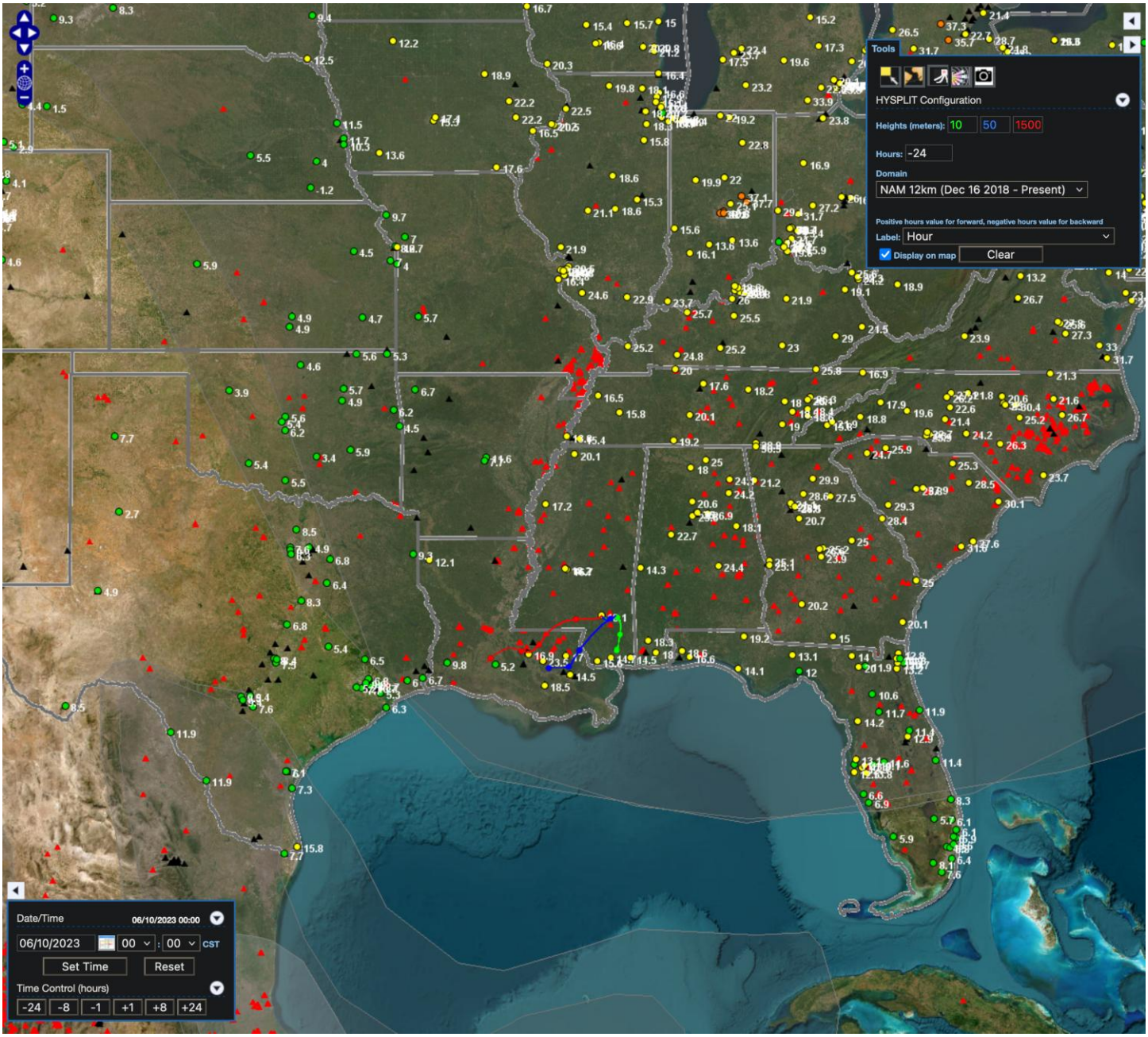


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 18.5ug/m^3.

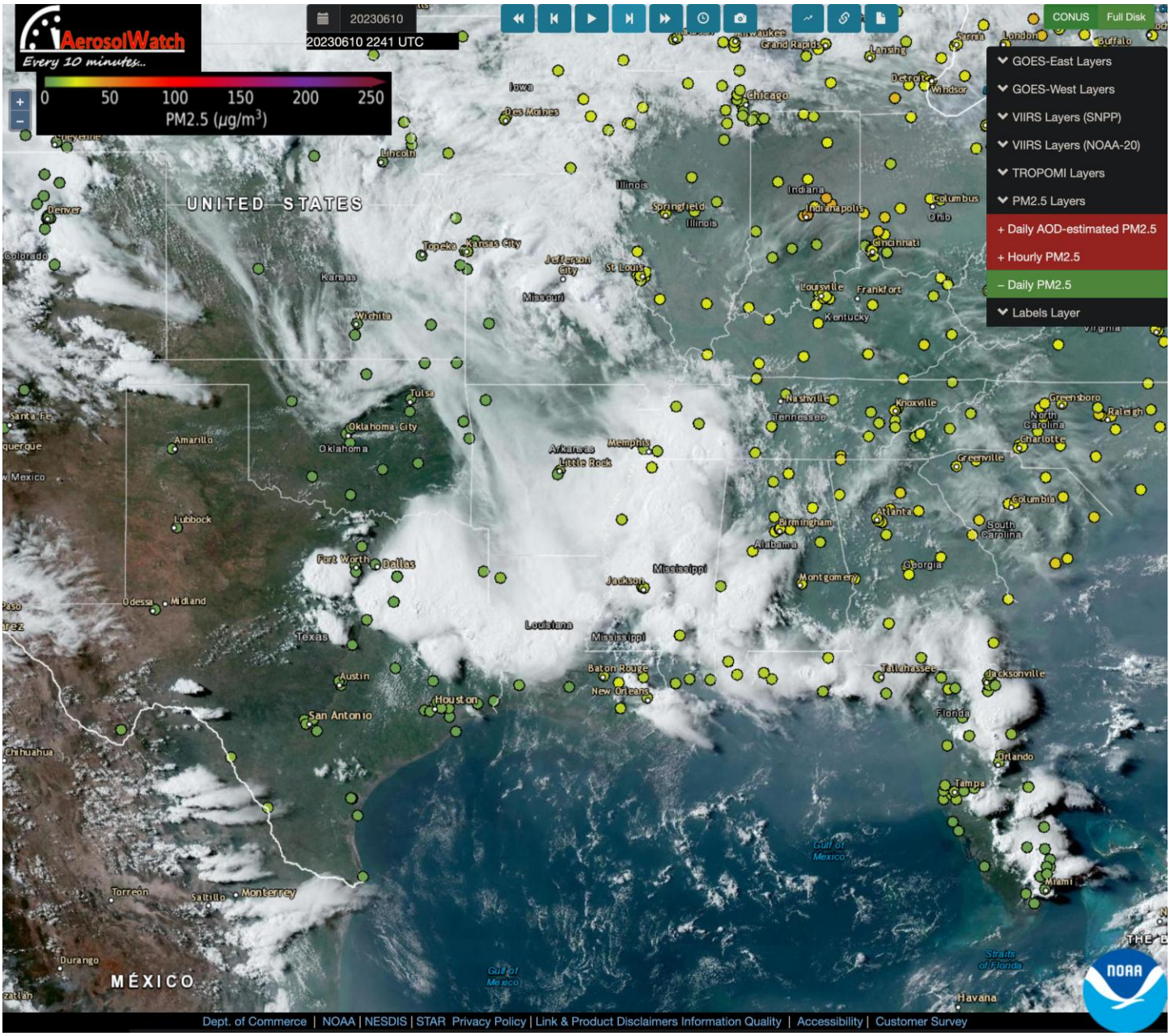
June 10th: Canadian smoke continued to affect the Hattiesburg monitor especially during the morning, throughout the day, into the evening hours. The pre-existing cold front that moved through days before, transitioned to a stationary front draped over central MS, eventually moving northward as a warm front, creating surface instability, combined with daily sea-breeze moving inland from the Gulf of Mexico, allowing for diurnal showers and thunderstorms during the afternoon and evening hours over the area. Although there were showers and thunderstorms during the afternoon and evening hours, precipitation did not help lower PM2.5 values till late in the evening close to midnight due to such an expansive shield of Canadian smoke in and around the area.



18z surface analysis (June 10th, 2023, at 1PM CDT) showing warm frontal boundary draped across Mississippi and Alabama.



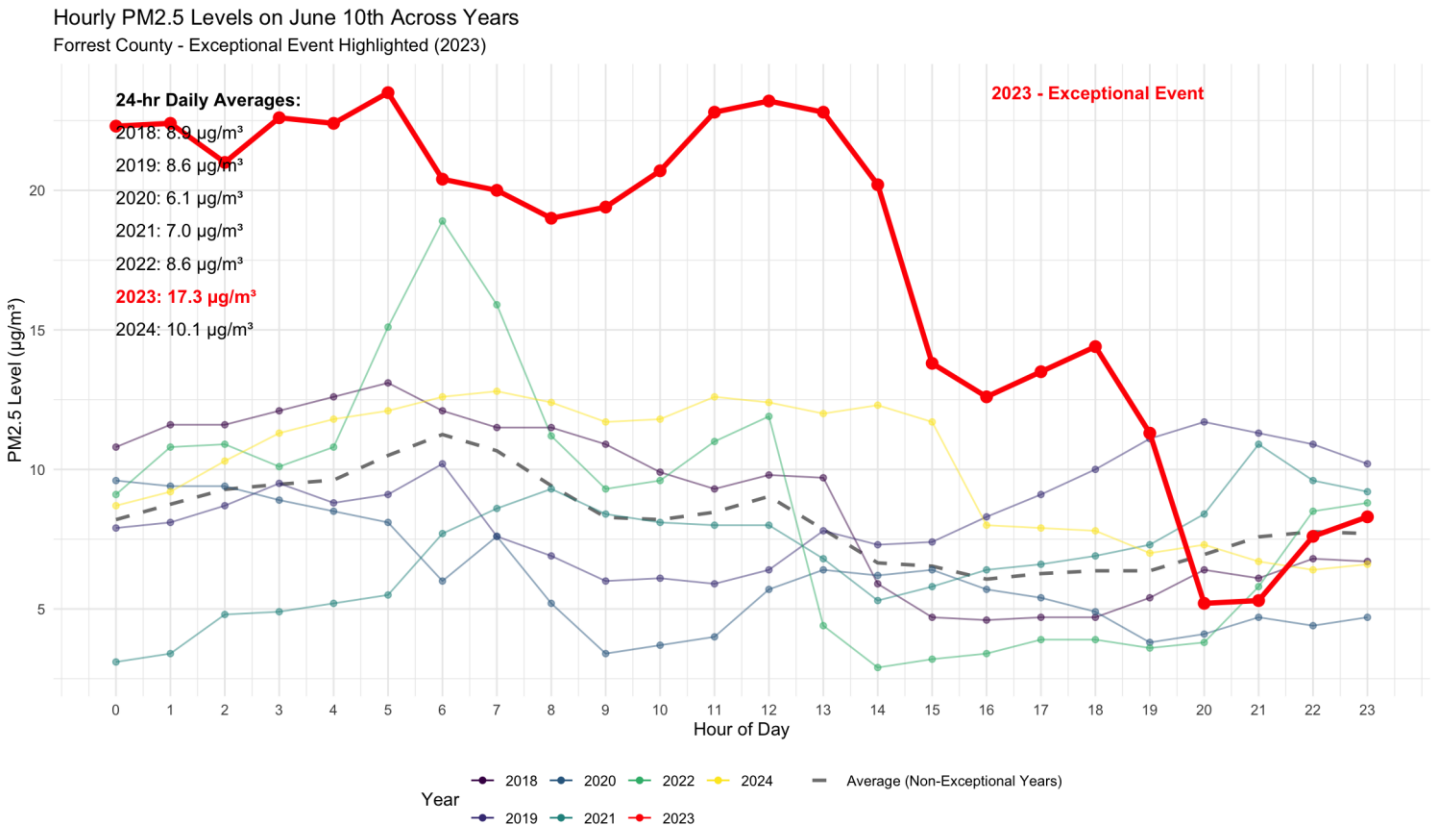
The AirNowTech Navigator image taken on, June 10th, 2023, above shows the large batch of residual Canadian wildfire smoke over the southeastern United States, keeping PM2.5 values elevated. 24-hour back trajectory showing parcel moving from southwest to northeast in response to stationary boundary moving northeastward as a warm front. Parcels at all three levels 10m, 50m, and 1500m, had not much movement during those 24-hours due to stagnant conditions, allowing for Canadian smoke to remain in place.



GOES East True Color image taken on June 10th, 2023, at 2241UTC, showing expansive smoke shield from Canadian wildfires remaining in place over the eastern and southeastern half of the United States. Also shown are convective thunderstorm formation along the frontal boundary that is draped over Mississippi and Alabama.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/10/23	23.2	23.3	21.9	23.5	23.3	24.4	21.3	20.9	19.9	20.3	21.6	23.7	24.1	23.7	21.1	14.7	13.5	14.4	15.3	12.2	6.1	6.2	8.5	9.2	18.18	24.4

The hourly values at the Hattiesburg monitor in the image above show PM2.5 levels in the twenties as smoke from Canadian wildfires continues to affect the area. It wasn't until late in the afternoon and evening hours that PM2.5 values began to decrease in response to precipitation, which helped disperse pollutants. Despite the precipitation, the 24-hour average for the day, due to the thick Canadian smoke, ended up being 18 µg/m^3.



The hourly time series in the figure above illustrates PM2.5 levels over the past seven years, highlighting elevated values in 2023 compared to the average of non-exceptional years. The plot shows increased PM2.5 concentrations before precipitation arrived in the late afternoon and evening, due to a dense smoke plume from Canadian wildfires. Once the precipitation began, PM2.5 levels started to decrease, helping disperse the smoke and lowering the hourly PM2.5 values. Despite the precipitation, the 24-hour average for the day, impacted by the thick Canadian smoke, still reached 17.3 µg/m^3.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 30 – July 1, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	17.1, 18.4	2, 3	Canadian Wildfire C Exceptional Event Demonstration: June 30 – July 1, 2023

Synopsis: The Quebec Wildfires in Canada has been ongoing for much of the month of June 2023. Majority of the smoke from the wildfires has been affecting the Upper Midwest, Ohio River Valley, Northeast, and Mid Atlantic States for much of the month. The period from June 30th to July 1st, 2023, smoke from the Canadian wildfires in Quebec was transported deep down in the southeastern United States, thanks to a surface frontal boundary that moved through on June 28th, and 29th, elevating PM2.5 values across the southeastern United States.

Friday, June 30, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1635Z June 30, 2023

SMOKE:
Canada, Eastern and Central United States, Atlantic Ocean…
The major wildfires across portions of Canada continue with a large area of smoke over much of Canada and extending to the south over the Central and Southeastern United States. The smoke also extended well off the east coasts of Canada and the United States as well as the Atlantic ocean along the eastern U.S coast and north-central region. To the west, some of the thinner density smoke had spread to the west and south over parts of the southwestern United States. Within this area, the thickest smoke was located mostly over Western Canada, northern Quebec, and parts of Hudson Bay while moderate density smoke engulfed most of Canada, Northeast U.S, and parts of northern U.S within Montana and the Dakotas. Cloud cover over eastern Canada made it difficult to determine to the full extent of the thick density smoke from the Quebec fires.

SMOKE/AEROSOL:
Southern United States, Mexico, Gulf of Mexico, Pacific Ocean south and southwest of Mexico...
Seasonal fires continue to burn mainly in Mexico resulting in a large area of thin smoke extending from the southern United States through much of the Gulf of Mexico, northern Mexico, and the Pacific Ocean extending well to the southwest of Mexico. It is likely that the smoke from Mexico merges with smoke from the Canadian fires somewhere over the south central and southeastern United States. Some aerosols from industrial activities in Mexico and Central America may also be present within the smoke in this region.

Dust:
Northeastern Caribbean Islands….
An area of light to moderate Saharan Dust continues to move across the Tropical Atlantic Ocean and was seen extending into the far eastern Caribbean Sea.

Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

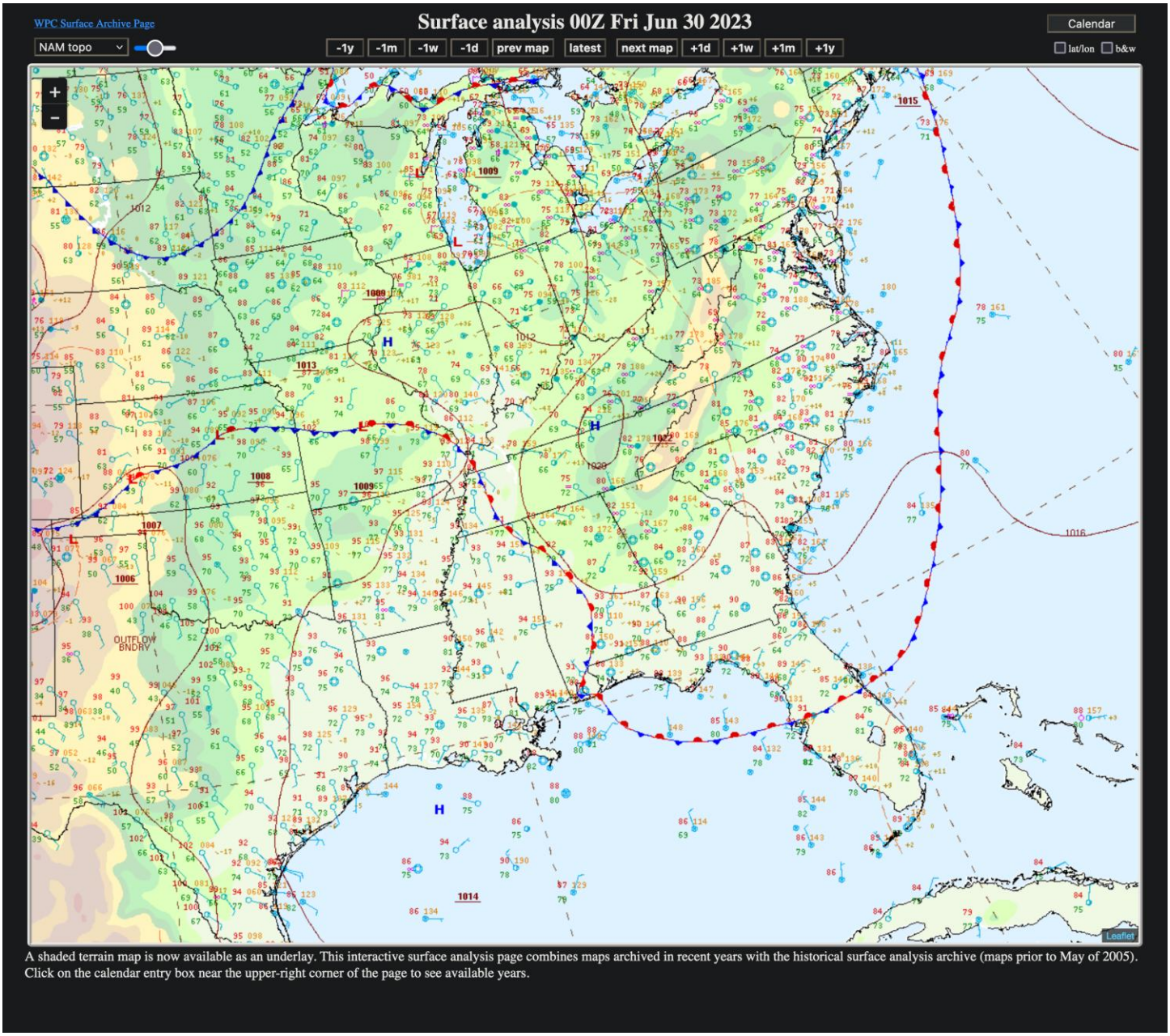
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

Unless otherwise indicated:

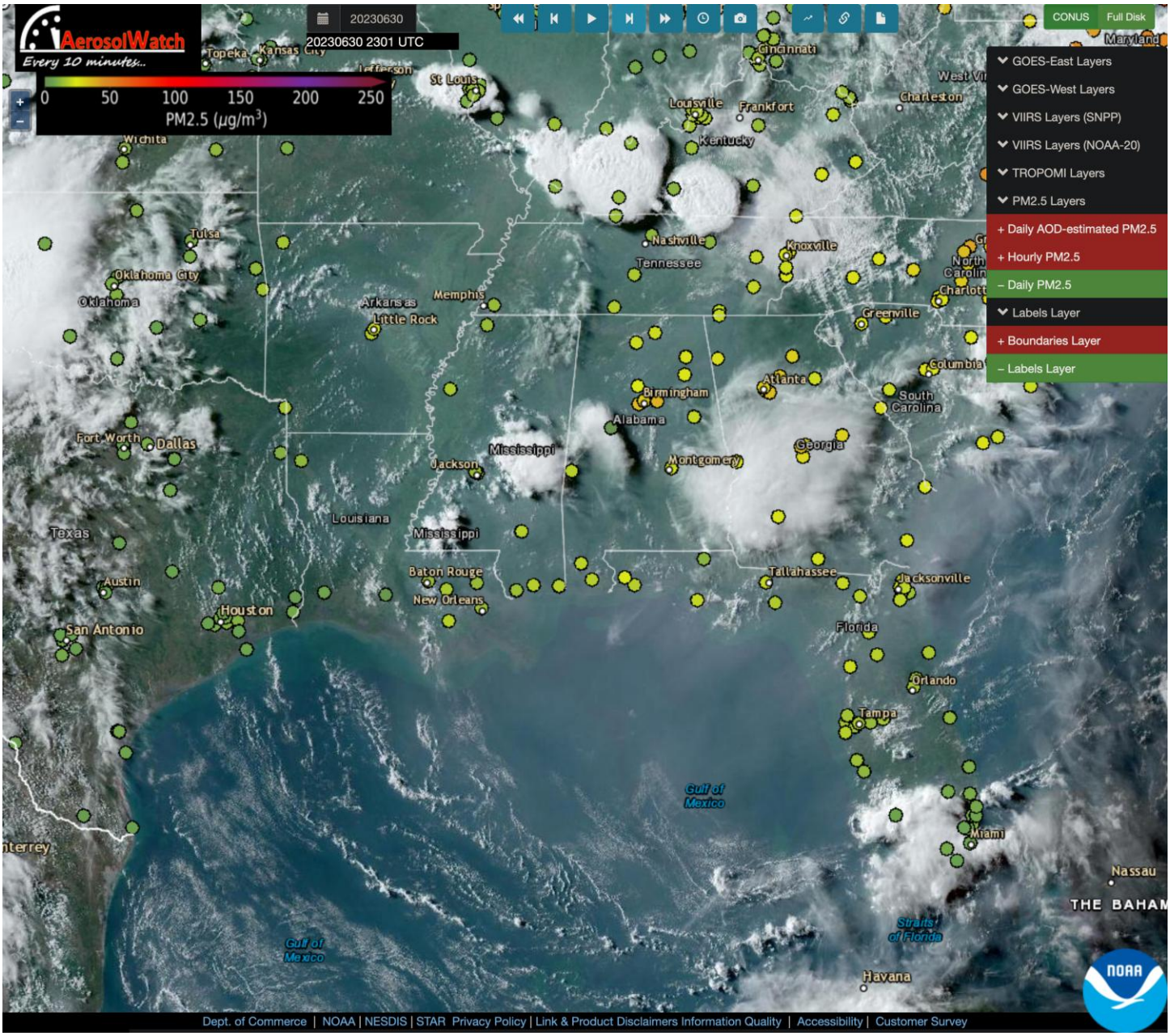
- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023F301636.html) narrative from June 30th, 2023 at 1635Z (June 30th, 2023 at 11:35AM CDT), describing the smoke situation and how Canadian transport smoke has been transported down to the southeastern United States.



00z surface analysis (June 29th, 2023, at 7PM CDT) showing weak stationary boundary draped across Alabama with High pressure parked over Tennessee River Valley. This High pressure helped transport Canadian wildfire smoke down into the southeastern United States.

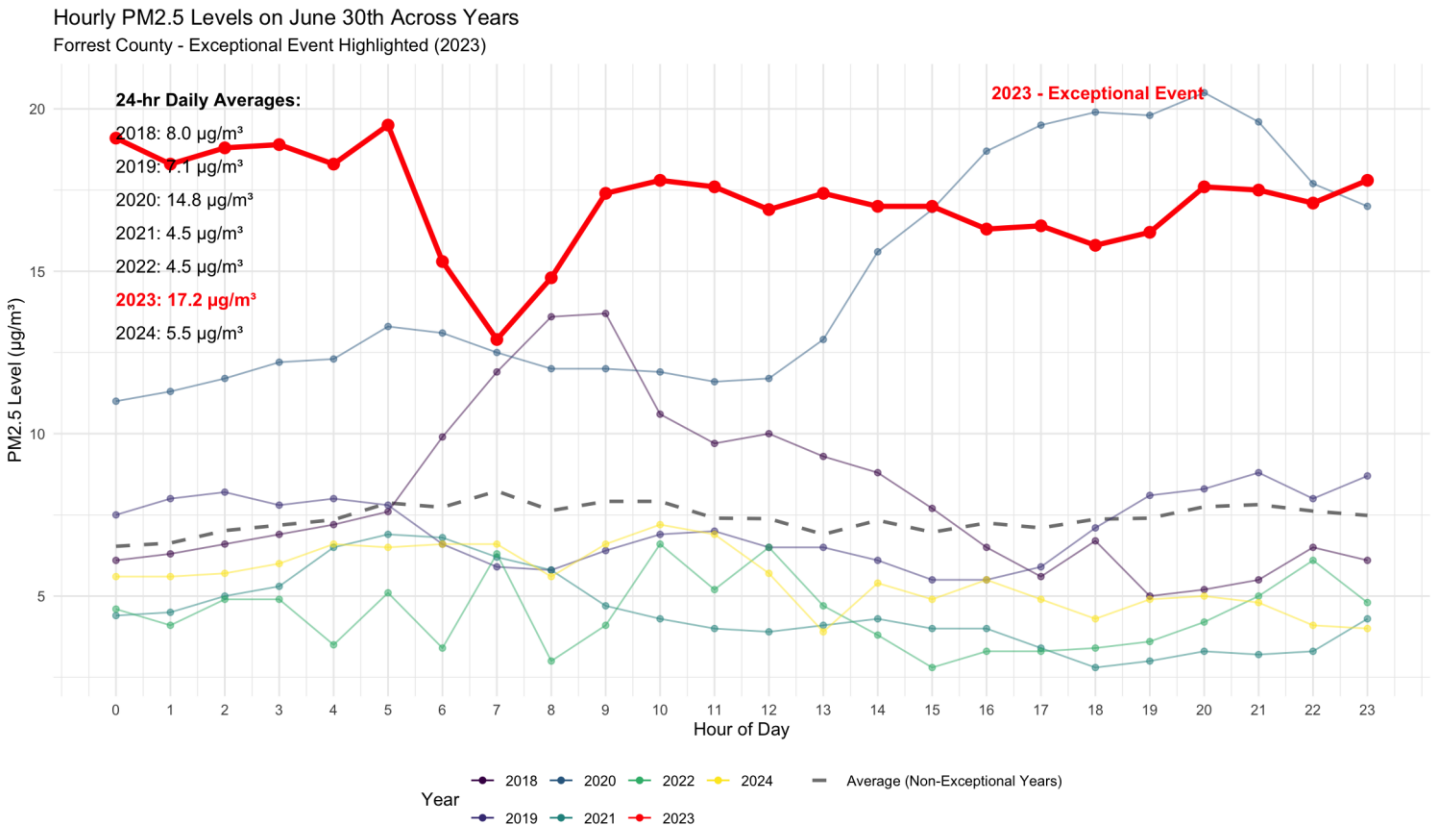
A series of AirNowTech Navigator images from June 29, 2023, through July 1, 2023, shows the progression of smoke from the Canadian wildfires in Quebec as it moved into the northeastern United States, the Ohio River Valley, and eventually the Eastern and southeastern United States. The transport of smoke into the southeastern United States was aided by a surface frontal boundary descending from Canada, which carried smoke deep into the southern United States and raised PM2.5 levels. A 24-hour back trajectory on July 1st indicates that once the Canadian smoke reached the Hattiesburg monitor in the previous days, stagnant conditions formed, preventing dispersion and ventilation, which allowed the smoke to persist and kept PM2.5 concentrations elevated at the Hattiesburg monitor.



GOES East True Color image taken on June 30th, 2023, at 2301UTC, showing expansive smoke shield from Canadian wildfires over the eastern and southeastern half of the United States, extending well into the Gulf of Mexico.

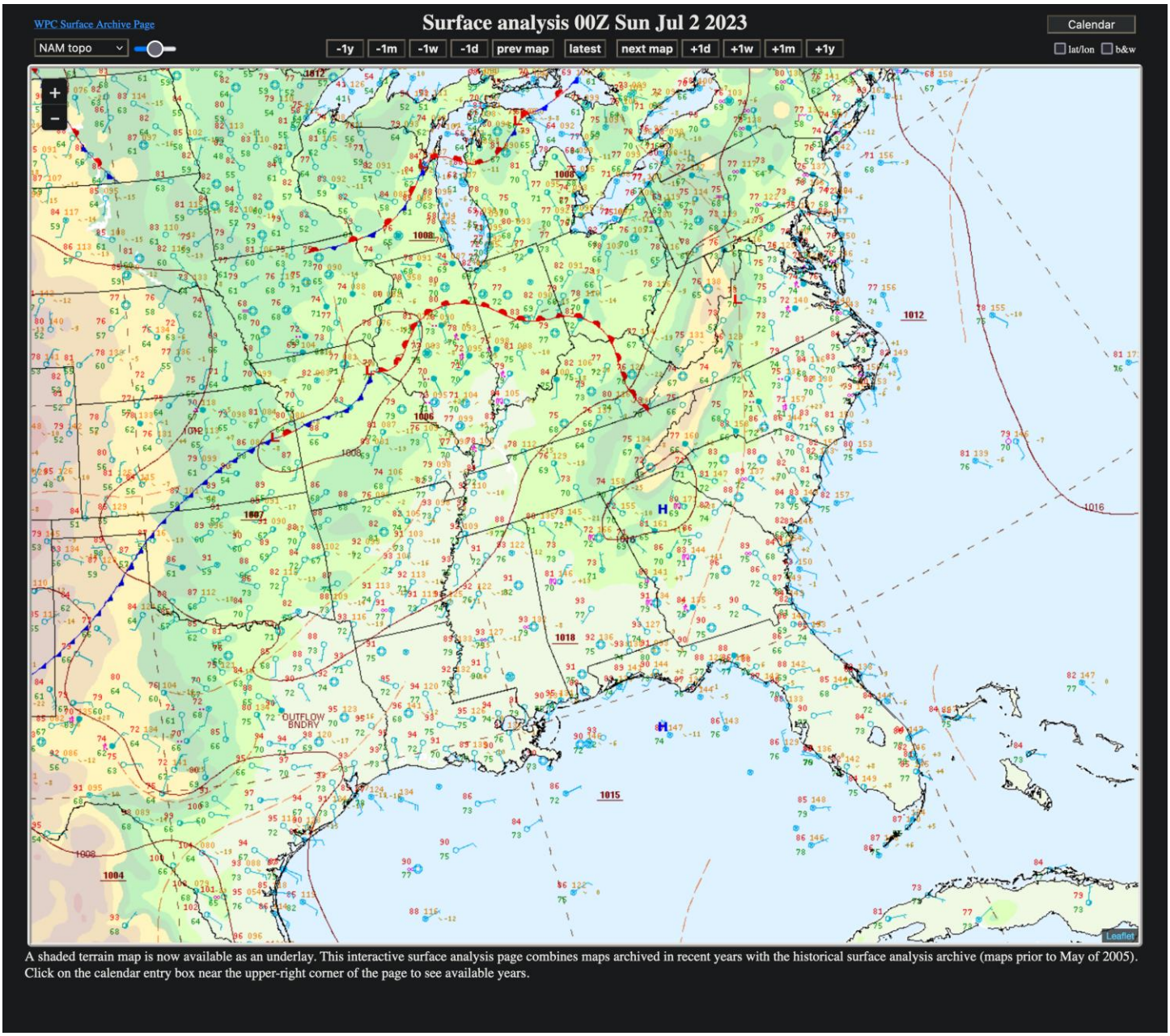
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	06/30/23	20	19.2	19.7	19.8	19.2	20.4	16.2	13.8	15.7	18.3	18.7	18.5	17.8	18.3	17.9	17.9	17.2	17.3	16.7	17.1	18.5	18.4	18	18.7	18.05	20.4

The hourly values at the Hattiesburg monitor on June 30th in the image above show PM2.5 values in the teens as smoke transport from Canadian wildfires affect the Hattiesburg PM2.5 monitor.

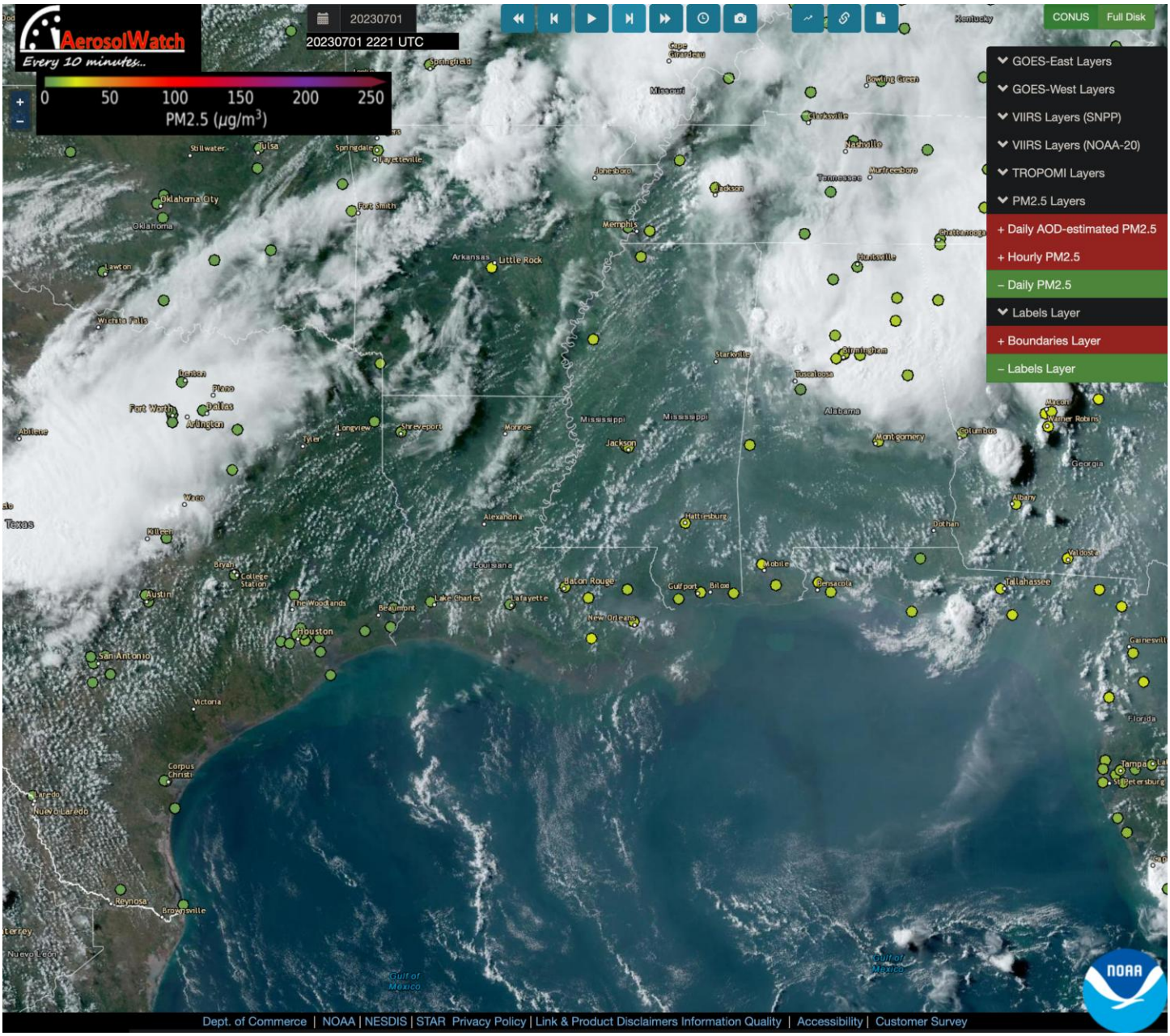


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 17.2ug/m^3

July 1st: The Hattiesburg monitor continued to show elevated PM2.5 levels due to stagnant conditions, which trapped residual Canadian wildfire smoke that had moved in during previous days. This was caused by high pressure parked over the southeastern United States coupled with high pressure aloft, preventing ventilation of pollutants.



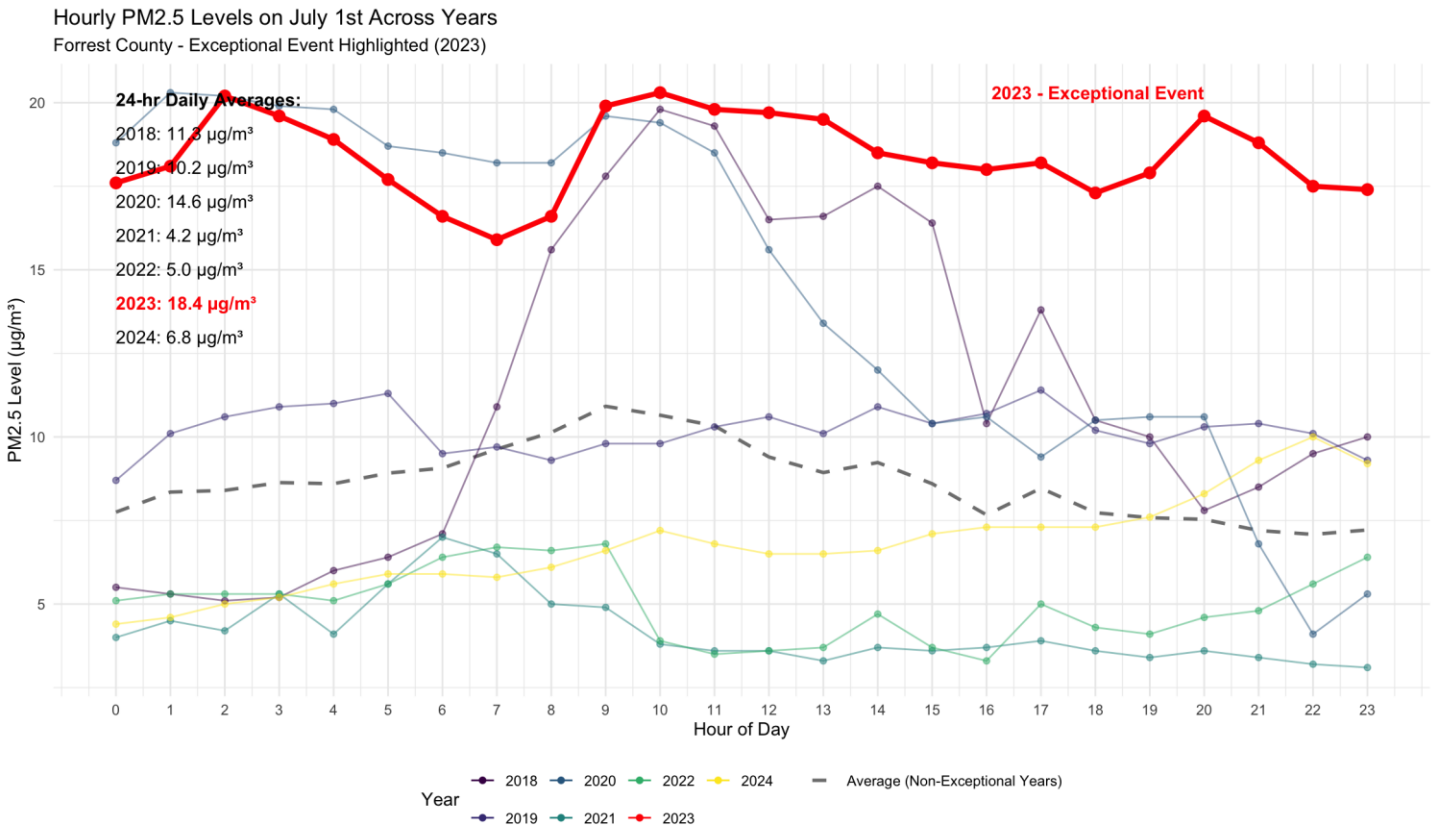
The 00z surface analysis (July 1st, 2023, at 7 PM CDT) shows high pressure across the southeast, creating stable and stagnant conditions that allowed Canadian wildfire smoke, transported in previous days, to linger across the southeastern United States.



GOES East True Color image taken on July 1st, 2023, at 2221UTC, showing expansive smoke shield from Canadian wildfires over the eastern and southeastern half of the United States, extending well into the Gulf of Mexico.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/01/23	18.5	19	21.1	20.5	19.8	18.6	17.5	16.8	17.5	20.8	21.2	20.7	20.6	20.4	19.4	19.1	18.9	19.1	18.2	18.8	20.5	19.7	18.4	18.3	19.31	21.2

The hourly values at the Hattiesburg monitor on July 1st in the image above show PM2.5 values in the teens and twenties as transport from Canadian wildfires affect the Hattiesburg PM2.5 monitor.

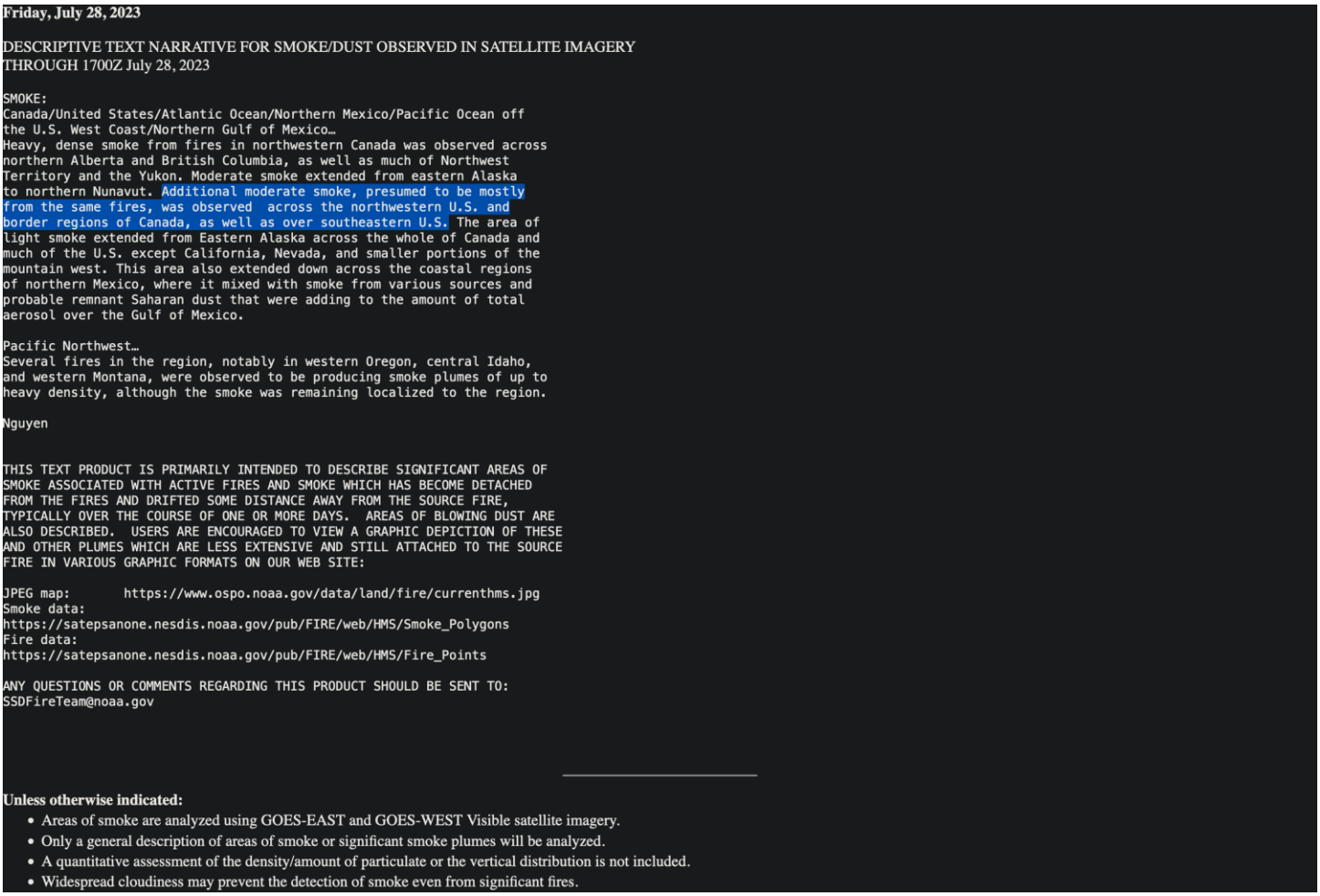


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 18.4ug/m^3

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
July 25 – 29, 2023	Canadian Wildfire	RF	28-035-0004	Hattiesburg	16.1, 19.3, 19.3, 16.3, 14.4	2, 3	Canadian Wildfire C Exceptional Event Demonstration: July 25 - 29, 2023

Synopsis: In July, numerous Canadian wildfires continued in both Western and Eastern Canada, particularly in Quebec. Throughout the month, smoke from these wildfires spread across much of the north-central and central United States, the Ohio River Valley, the Great Lakes region, and the northeastern United States, with some periods affecting the Mid-South and southeastern United States. The exceptional event dates for the Hattiesburg monitor were July 25–29, 2023.

Smoke from the Canadian wildfires was transported to the southern United States as a cold front moved southward through the central United States on July 20–21. By July 22–23, the front had pushed down to southern Louisiana, Mississippi, and central Alabama and Georgia, with high pressure building in behind it. This high pressure helped transport smoke from the Canadian wildfires into the Gulf States. High pressure remained over the southeast through the remainder of the month, creating stagnant and stable conditions that allowed the Canadian wildfire smoke to persist, elevating PM2.5 values across the southeast, including at the Hattiesburg monitor.



Friday, July 28, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1700Z July 28, 2023

SMOKE:
Canada/United States/Atlantic Ocean/Northern Mexico/Pacific Ocean off
the U.S. West Coast/Northern Gulf of Mexico…
Heavy, dense smoke from fires in northwestern Canada was observed across
northern Alberta and British Columbia, as well as much of Northwest
Territory and the Yukon. Moderate smoke extended from eastern Alaska
to northern Nunavut. Additional moderate smoke, presumed to be mostly
from the same fires, was observed across the northwestern U.S. and
border regions of Canada, as well as over southeastern U.S. The area of
light smoke extended from Eastern Alaska across the whole of Canada and
much of the U.S. except California, Nevada, and smaller portions of the
mountain west. This area also extended down across the coastal regions
of northern Mexico, where it mixed with smoke from various sources and
probable remnant Saharan dust that were adding to the amount of total
aerosol over the Gulf of Mexico.

Pacific Northwest…
Several fires in the region, notably in western Oregon, central Idaho,
and western Montana, were observed to be producing smoke plumes of up to
heavy density, although the smoke was remaining localized to the region.

Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

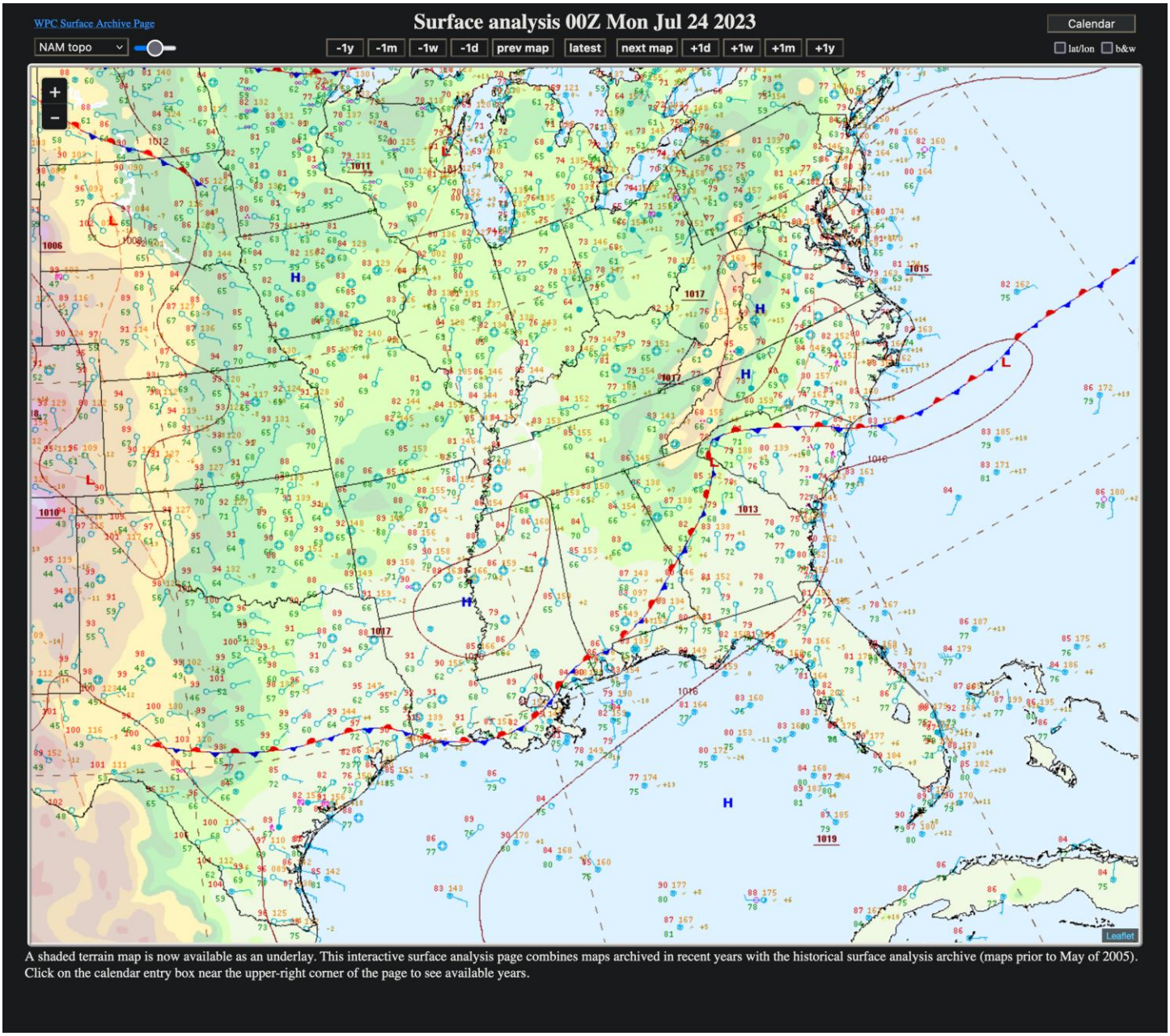
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

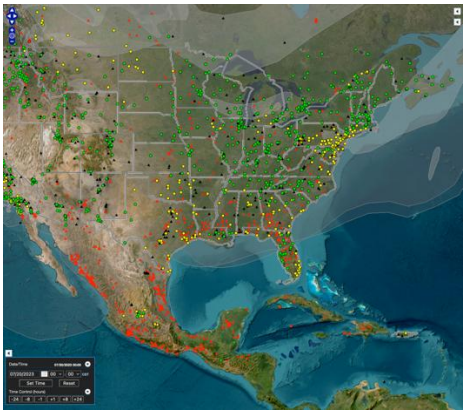
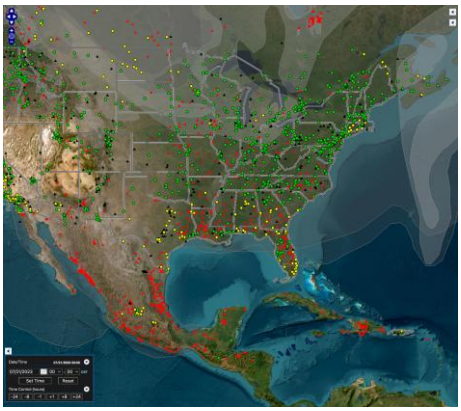
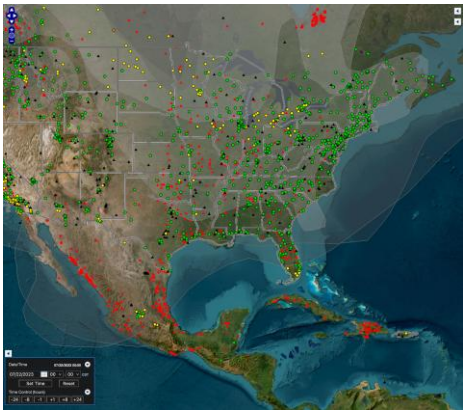
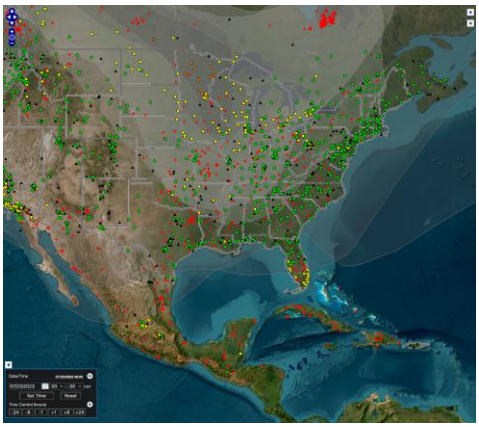
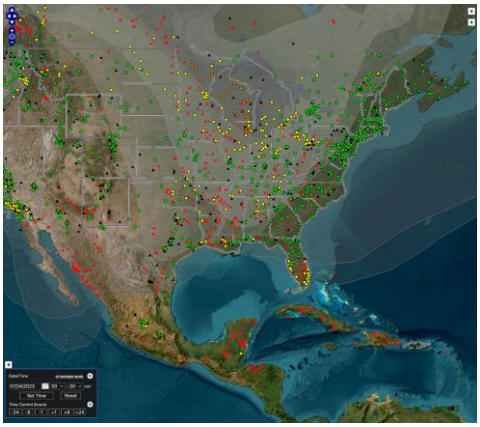
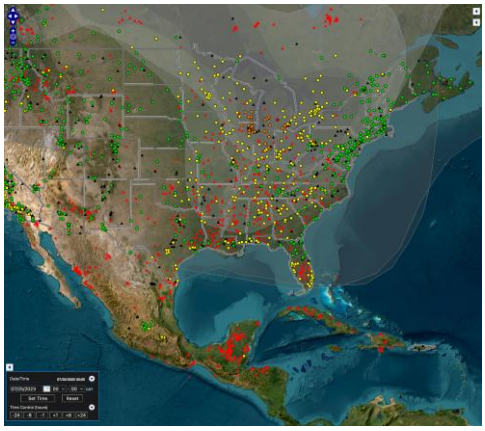
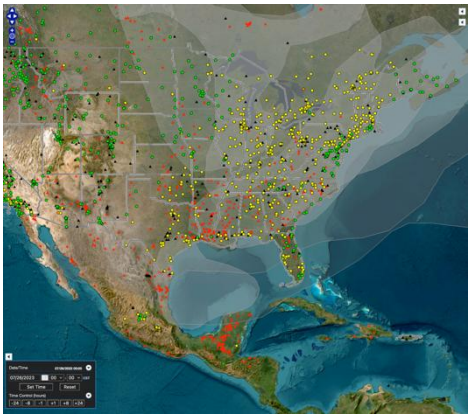
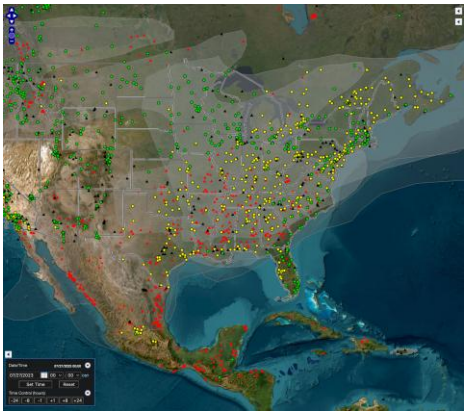
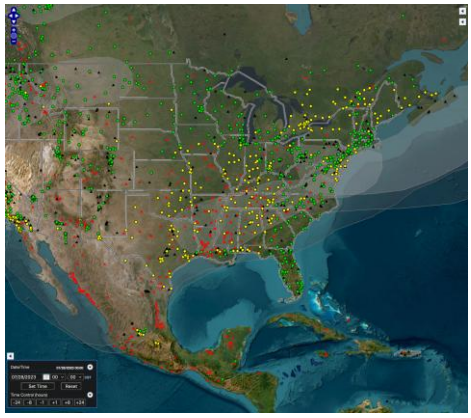
Unless otherwise indicated:

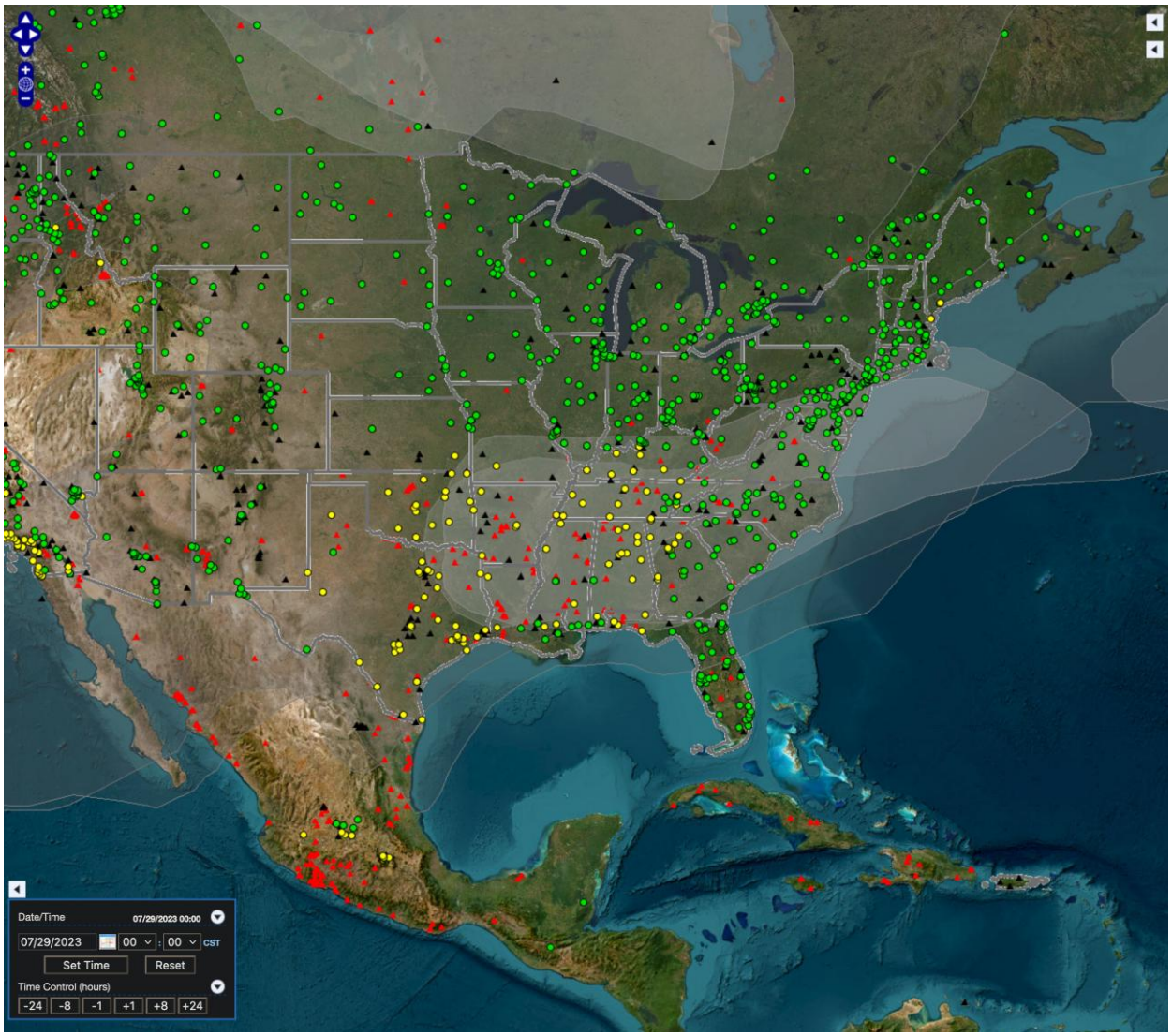
- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023G281710.html) narrative June 28th, 2023 at 1700Z (June 28th, 2023 at 12:00PM CDT), describing the smoke situation and how Canadian transport smoke has been transported down to the southeastern United States.

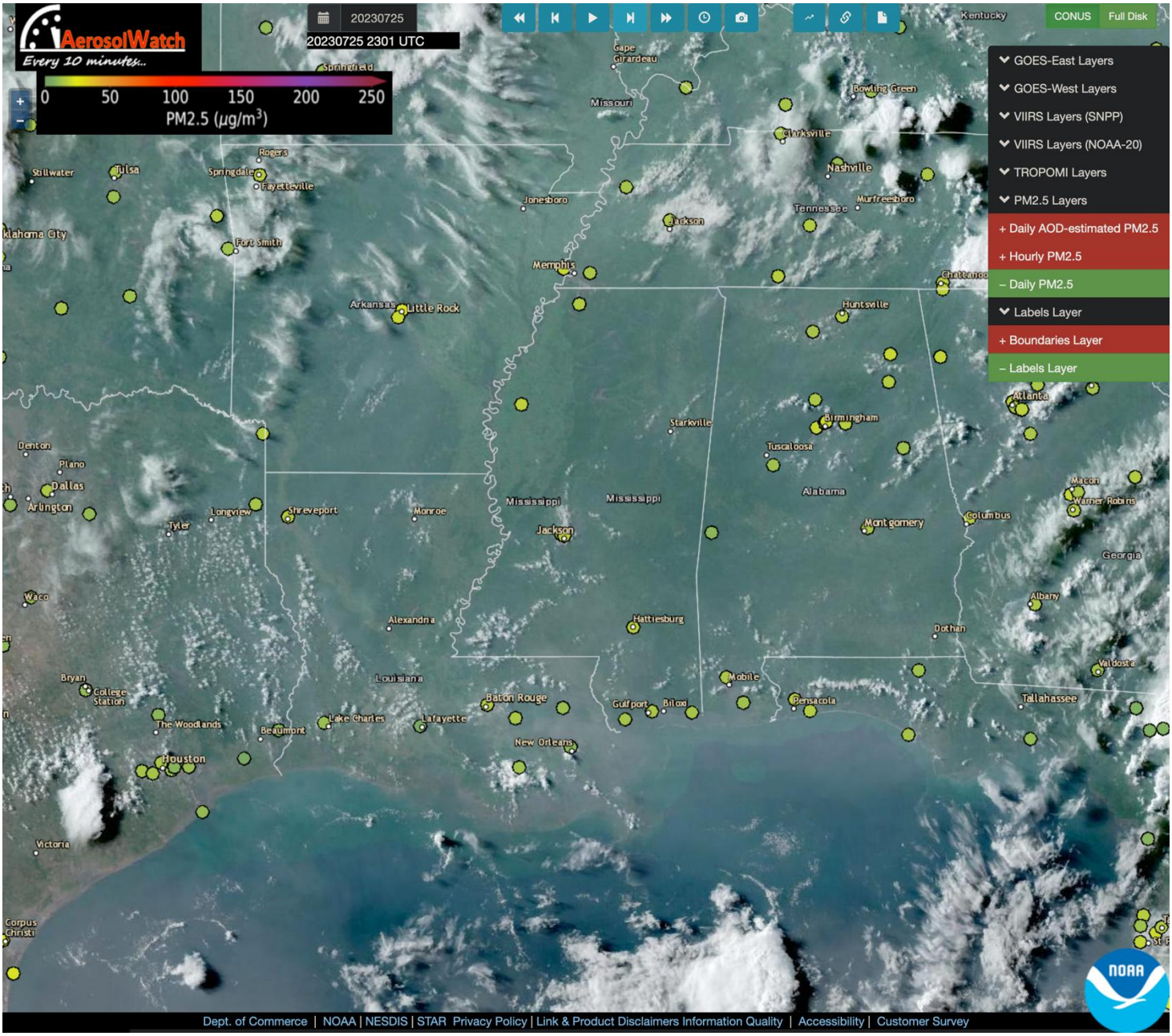


The 00z surface analysis (July 24th, 2023, at 7 PM CDT) shows frontal boundary that has made it deep down into the Gulf States and became stationary with surface High pressure building in behind it that helped transport smoke from the Canadian wildfires, deep down into the southeastern United States.



Series of AirNowTech Navigator image taken from July 20th, 2023, through July 29th, 2023, show the progression of smoke from the Canadian wildfires, transporting into the northeastern United States, Midwest, the Ohio River Valley, and eventually into the Mid-South, and southeastern portions of the United States. Transport of the smoke into the United States was aided by frontal boundaries dropping down from Canada, helping transport smoke from the Canadian wildfires, deep into the southeastern United States, increasing PM2.5 values.

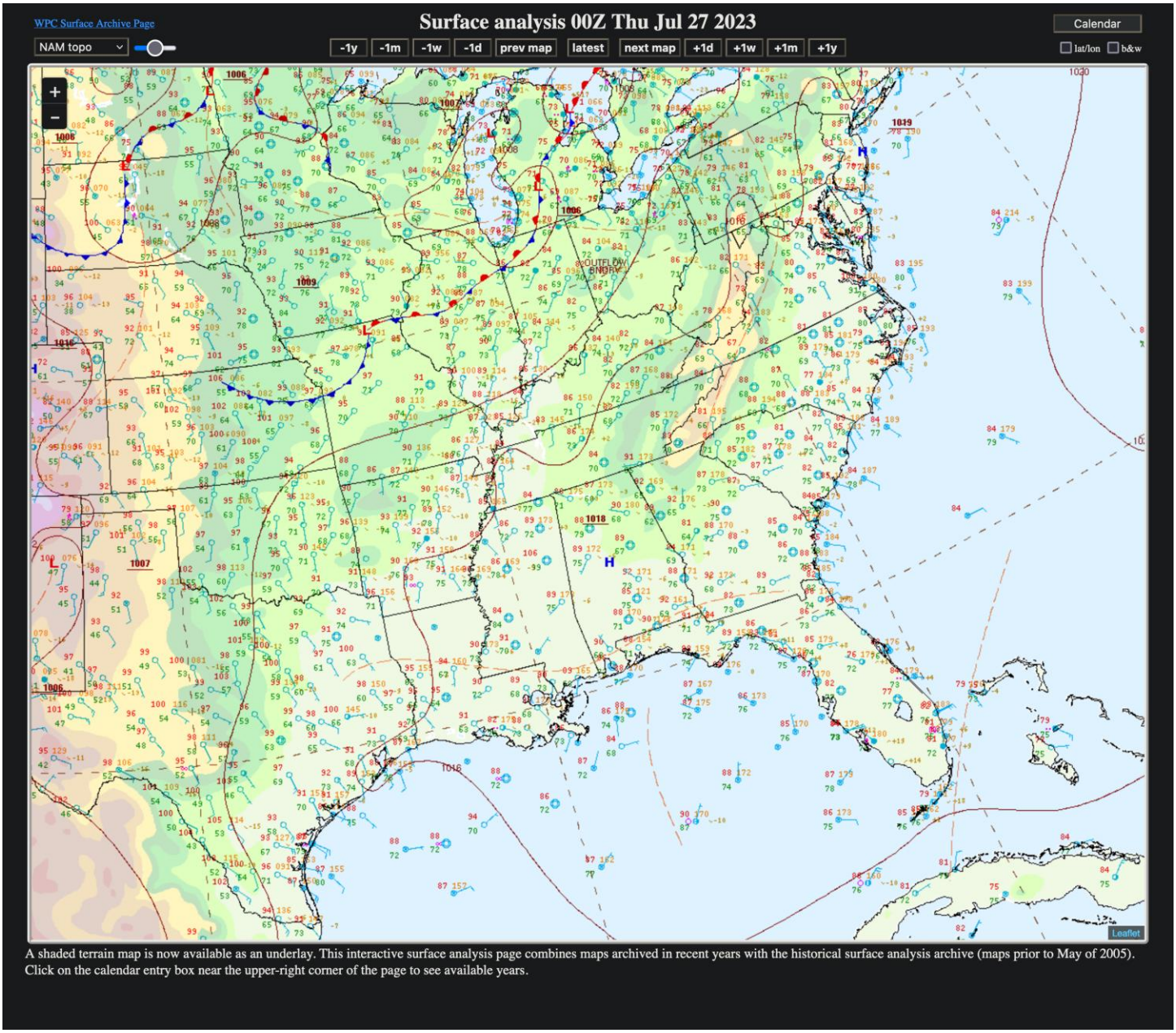


GOES East True Color image taken on July 25th, 2023, at 2301UTC, showing expansive smoke shield from Canadian wildfires over the southeastern United States, extending well into the Gulf of Mexico.

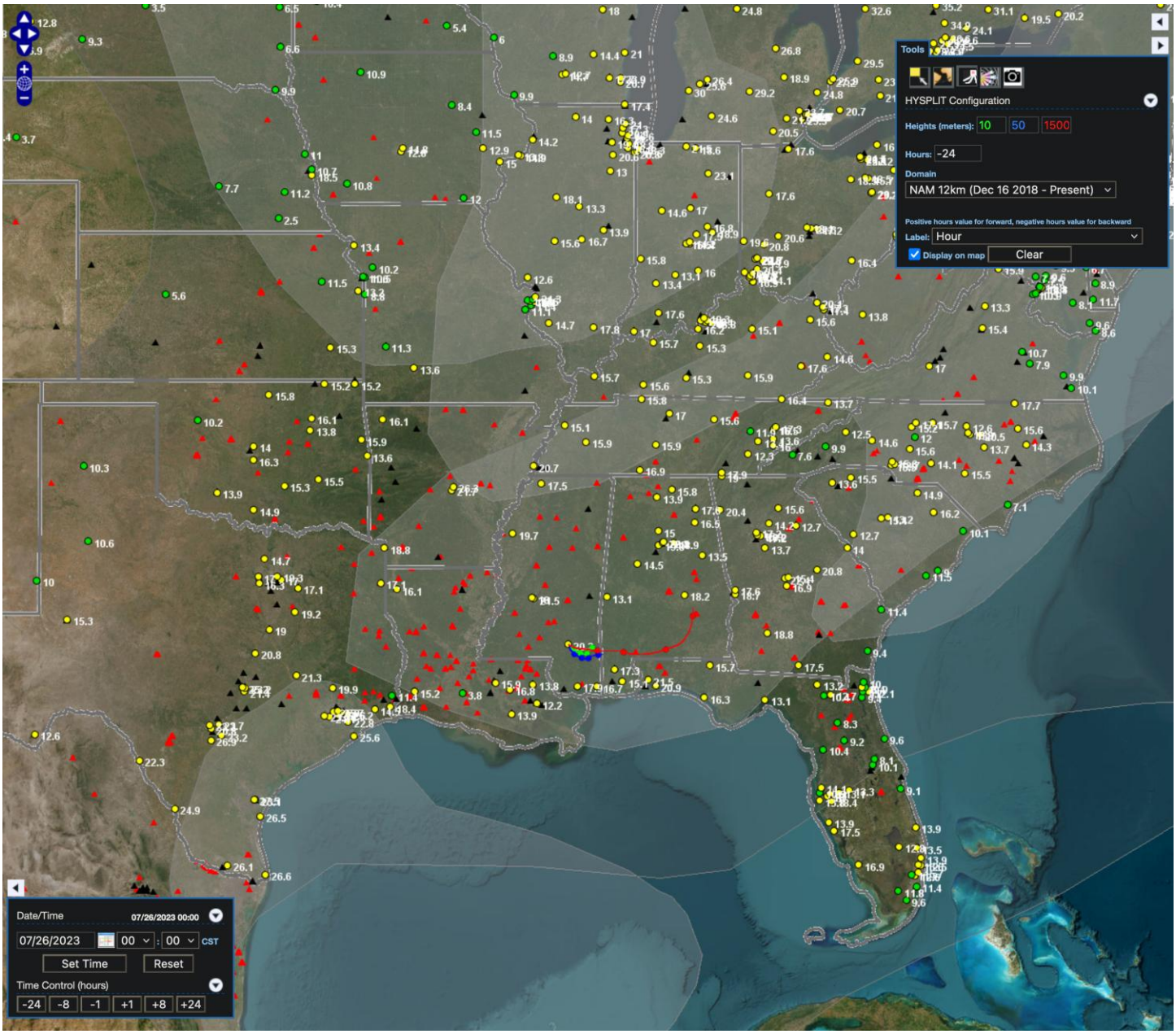
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/25/23	14.7	14.8	15.3	16.1	17	17	18.4	17.3	15	14.1	15.3	16.5	16.4	16.9	17.7	17.6	17.9	17.3	18.5	18	17.9	17.4	19.9	21.6	17.02	21.6

The hourly values at the Hattiesburg monitor on July 25th in the image above show PM2.5 values in the teens as transport from Canadian wildfires elevated PM2.5 concentrations at the Hattiesburg PM2.5 monitor.

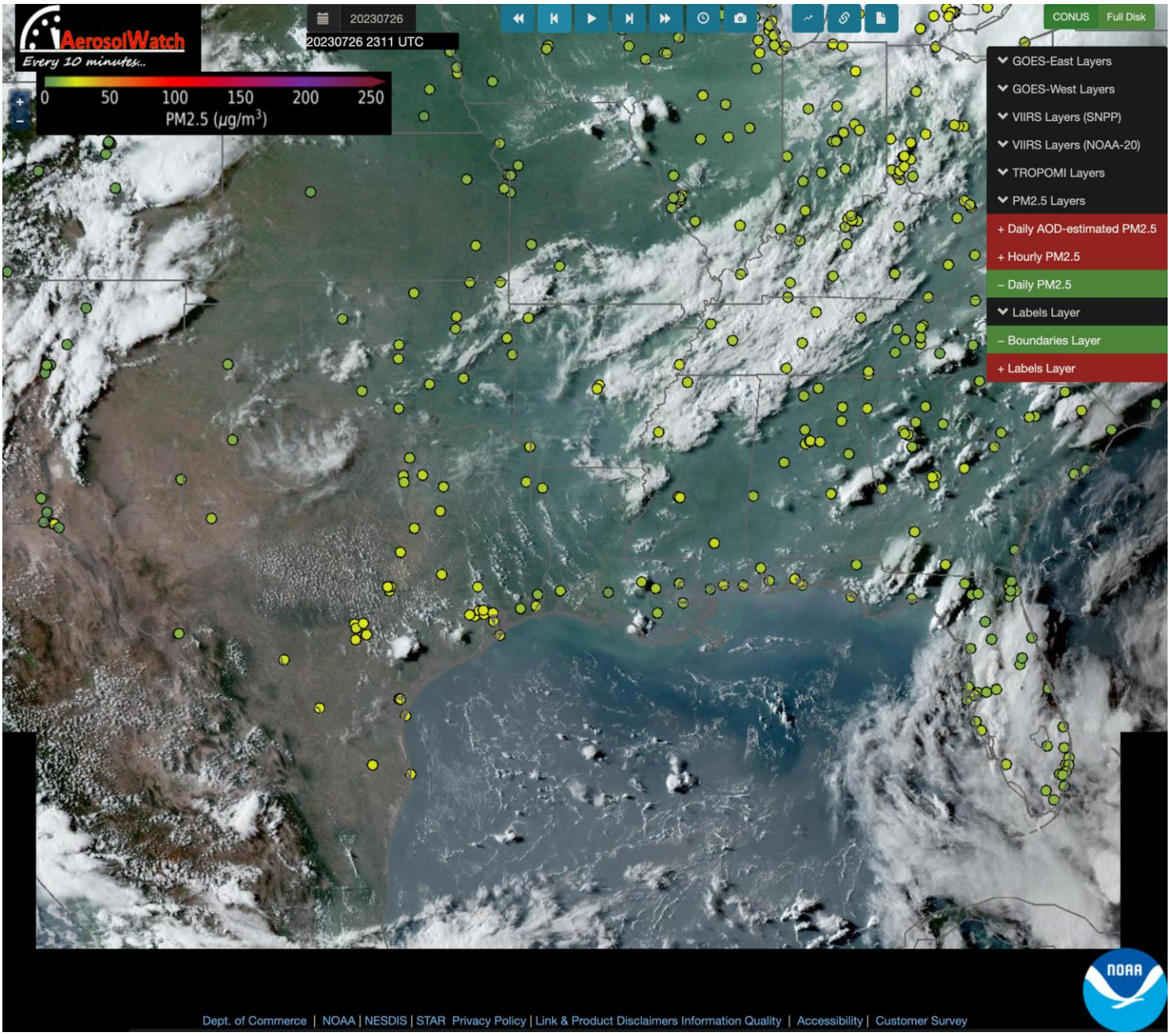
June 26th: High pressure continued to dominate over the southeast bringing stable/stagnant conditions, allowing smoke that was transported from previous days to linger over the area, keeping PM2.5 values elevated at the Hattiesburg monitor.



The 00z surface analysis (July 26th, 2023, at 7 PM CDT) shows surface High pressure over the southeastern United States, helping lead to stable/stagnant conditions, allowing PM2.5 values to remain elevated from wildfire smoke from Canada that was transported over the area from previous days frontal boundary.



The AirNowTech Navigator image taken on, June 26th, 2023, above shows the large batch of residual Canadian wildfire smoke over the southeastern United States, keeping PM2.5 values elevated. 24-hour back trajectories at the lowest 10m and 50m levels, show very little movement of the parcels, indicating stagnant, stable conditions at the surface.

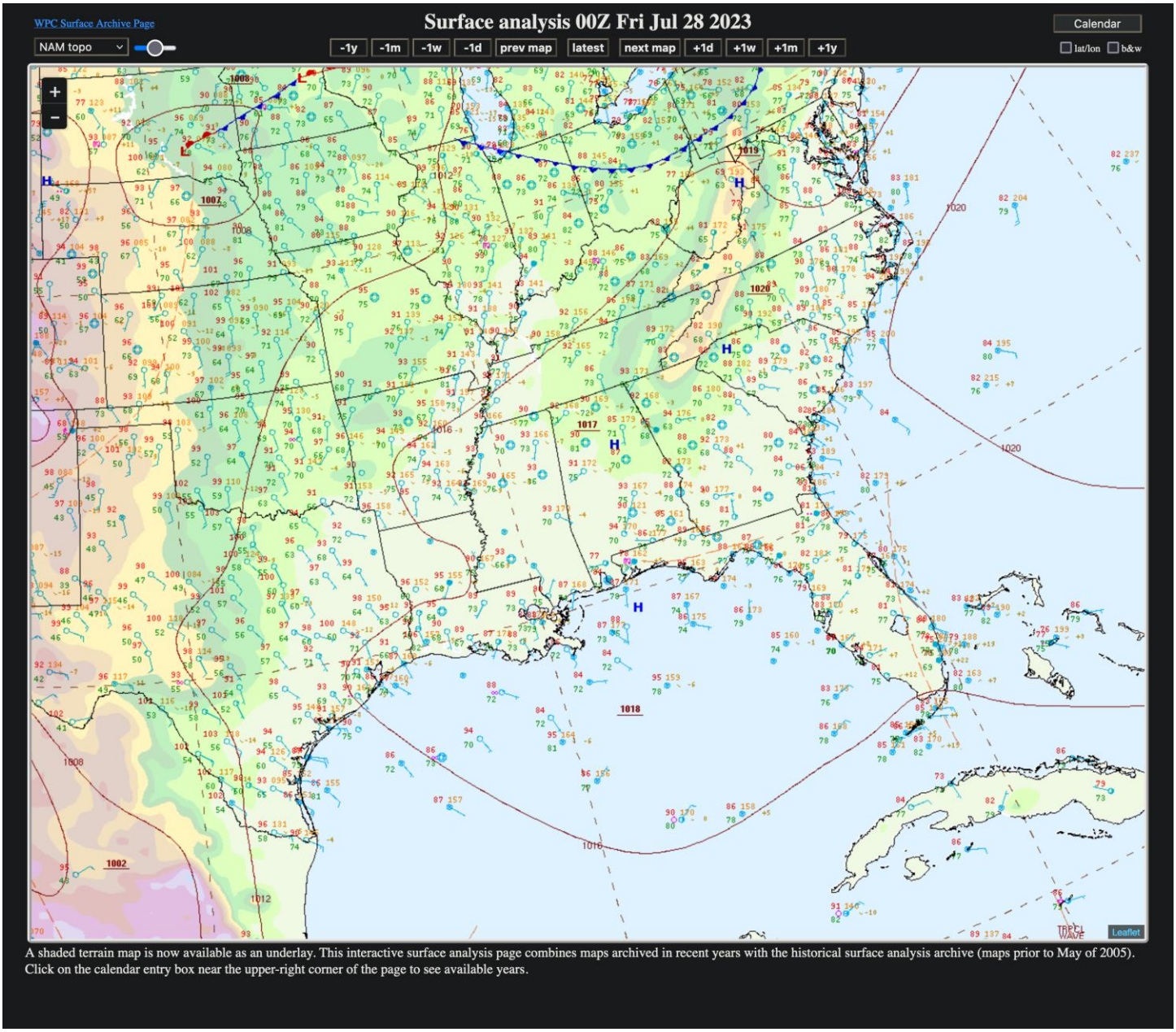


GOES East True Color image taken on July 26th, 2023, at 2311UTC, showing expansive smoke shield from Canadian wildfires over the southeastern United States, extending well into the Gulf of Mexico.

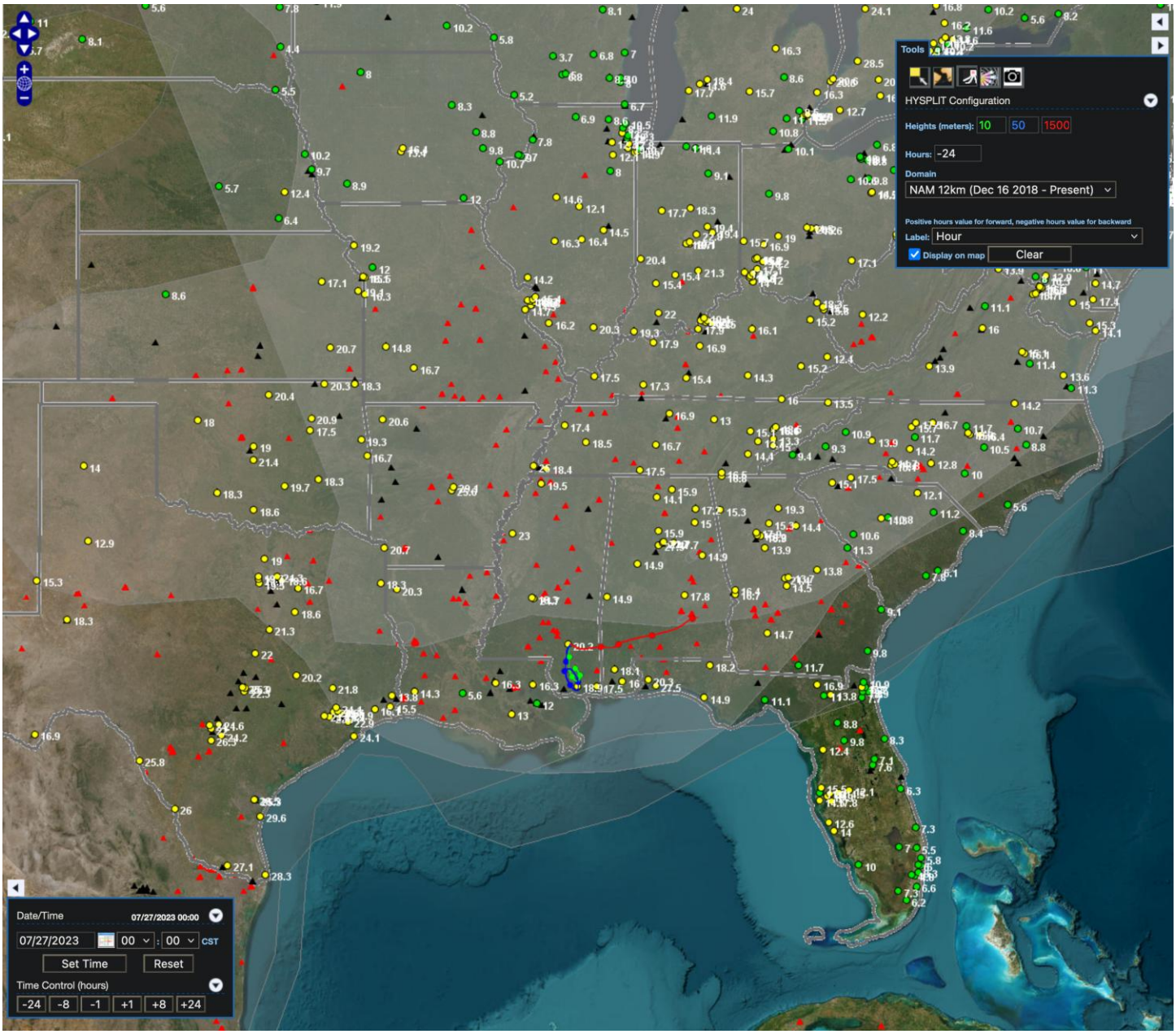
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/26/23	21.3	21.6	21.7	21.8	23.3	22.8	21.7	20.5	16.7	16.5	18	19.7	20.4	20.4	20.3	19.4	19.1	18.9	18	18.5	19.3	21.8	21.8	21.4	20.2	23.3

The hourly values at the Hattiesburg monitor on July 26th in the image above show PM2.5 values in the teens and twenties as stagnated smoke from Canadian wildfires elevated PM2.5 concentrations at the Hattiesburg PM2.5 monitor.

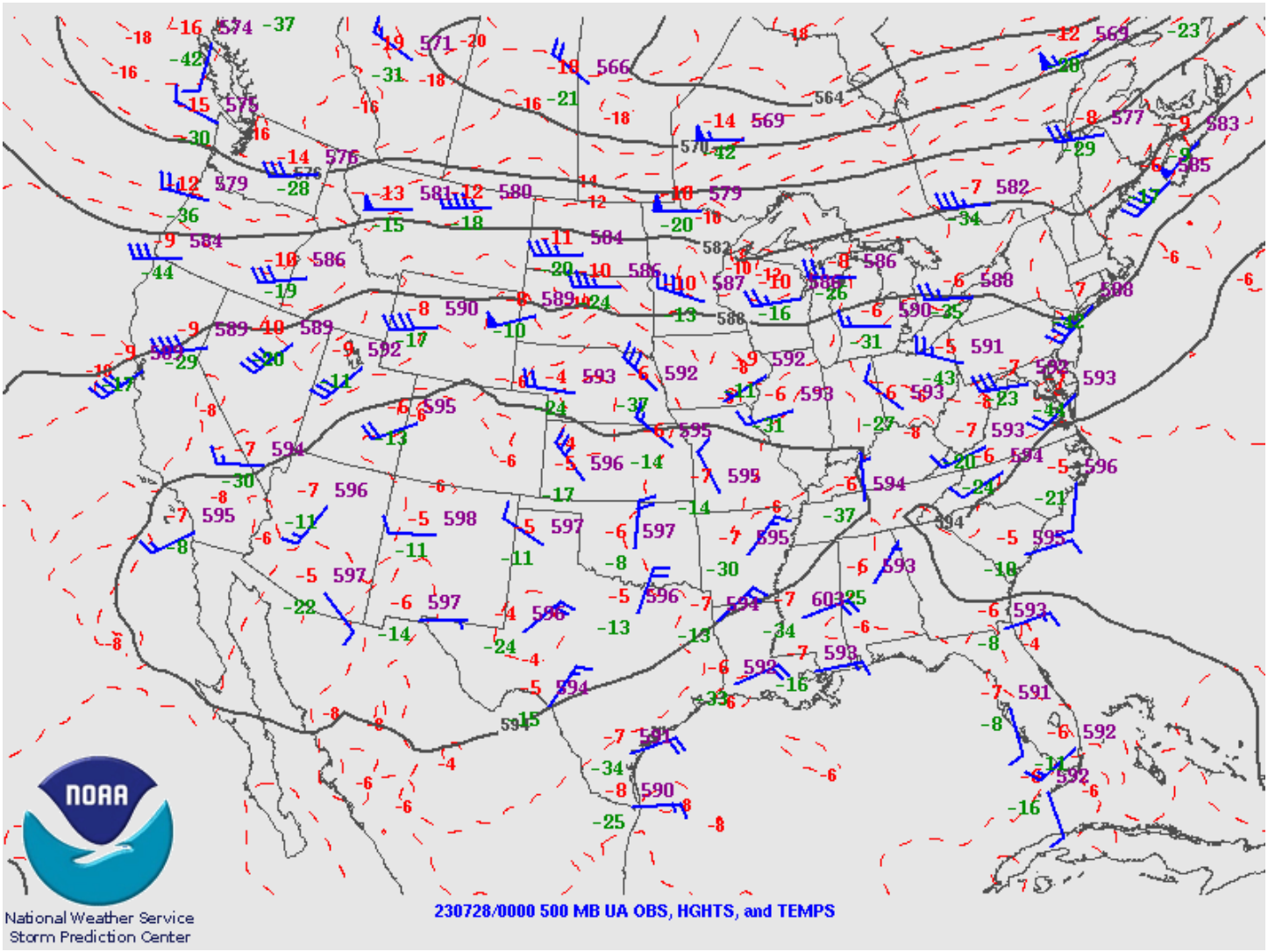
June 27th: June the 27th was a carbon copy day of June 26th, as High pressure remained in firm control over the southeastern United States, holding the Canadian smoke in place, continuing to elevate PM2.5 values across the southeast. The position of the High pressure and the upper-level pattern, issued in a re-enforcing shot of Canadian smoke into the southeastern United States on the 27th.



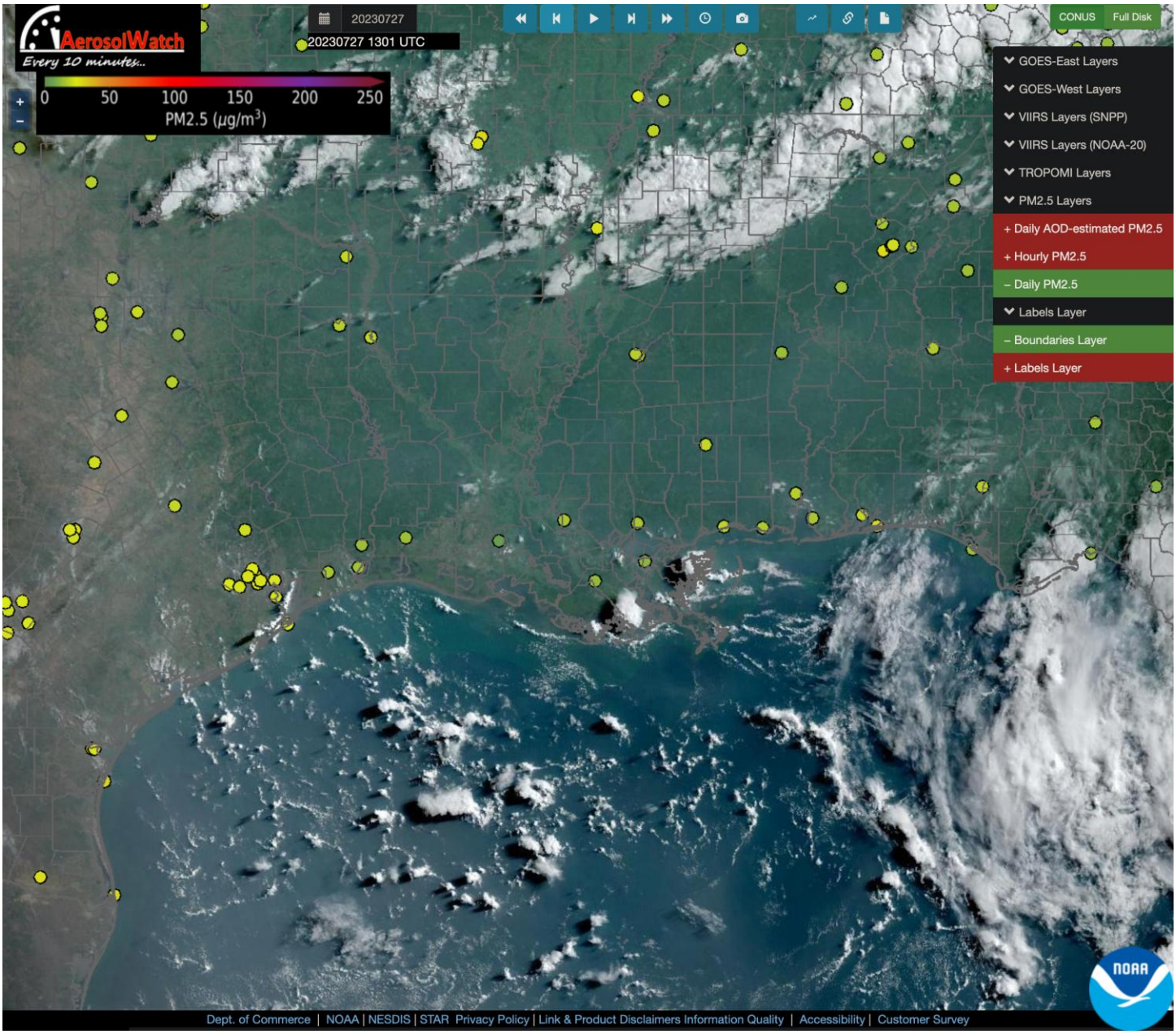
The 00z surface analysis (July 27th, 2023, at 7 PM CDT) shows surface High pressure over the southeastern United States, helping lead to stable/stagnant conditions, allowing PM2.5 values to remain elevated from wildfire smoke from Canada that was transported over the area from previous days frontal boundary.



The AirNowTech Navigator image taken on, June 27th, 2023, above shows the large reinforcing batch of Canadian wildfire smoke over the southeastern United States that is moving in from the north, keeping PM2.5 values elevated. 24-hour back trajectories at the lowest 10m and 50m levels, show very little movement of the parcels, indicating stagnant, stable conditions at the surface.



The 00z upper-level analysis at 500 mb (July 27, 2023, at 7 PM CDT) shows an expansive ridge centered over the western United States. On the eastern flank of the ridge, anticyclonic flow is transporting smoke from Canadian wildfires down into the eastern and southeastern United States.

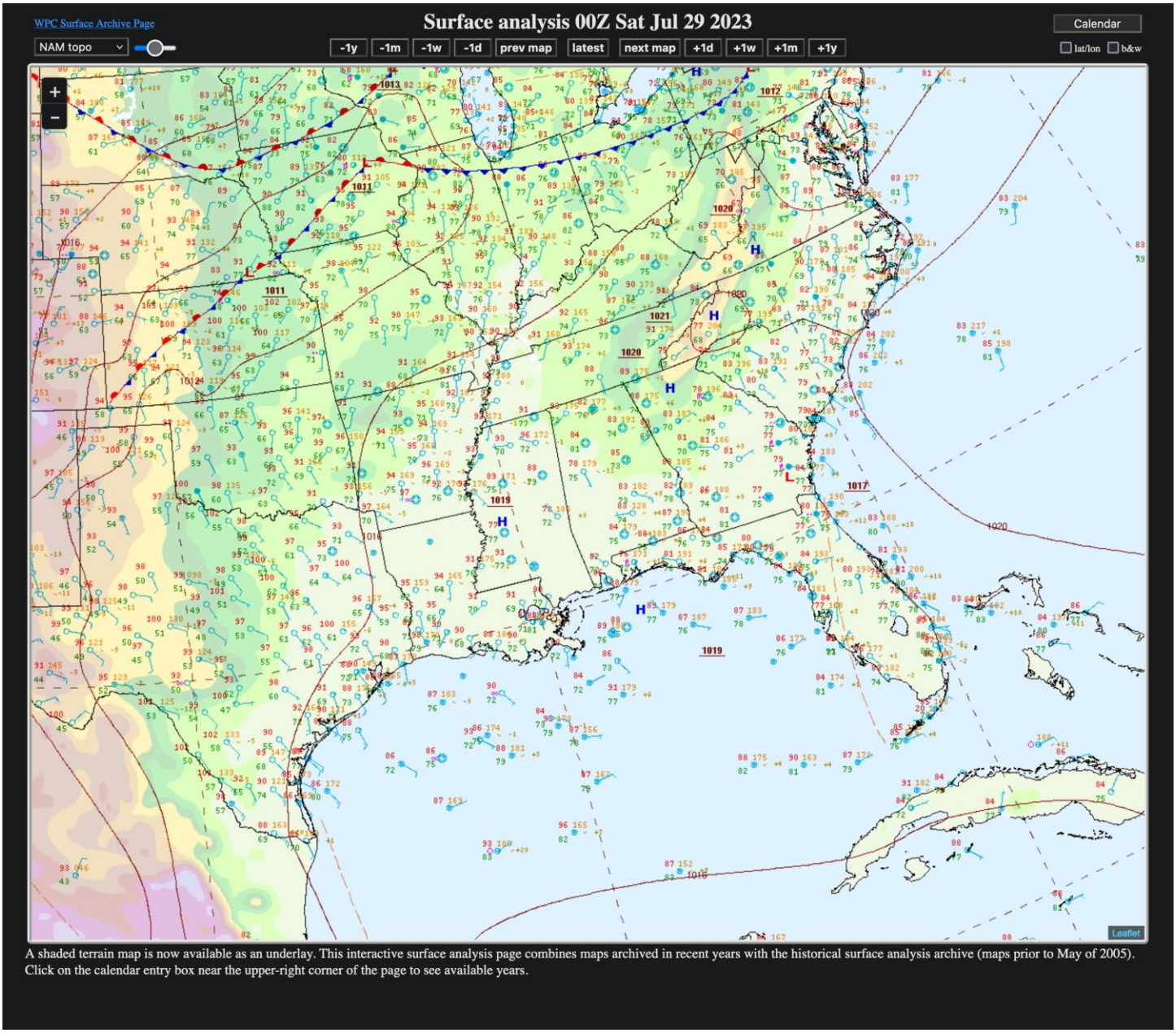


GOES East True Color image taken on July 27th, 2023, at 1301UTC, showing expansive smoke shield from Canadian wildfires over the southeastern United States.

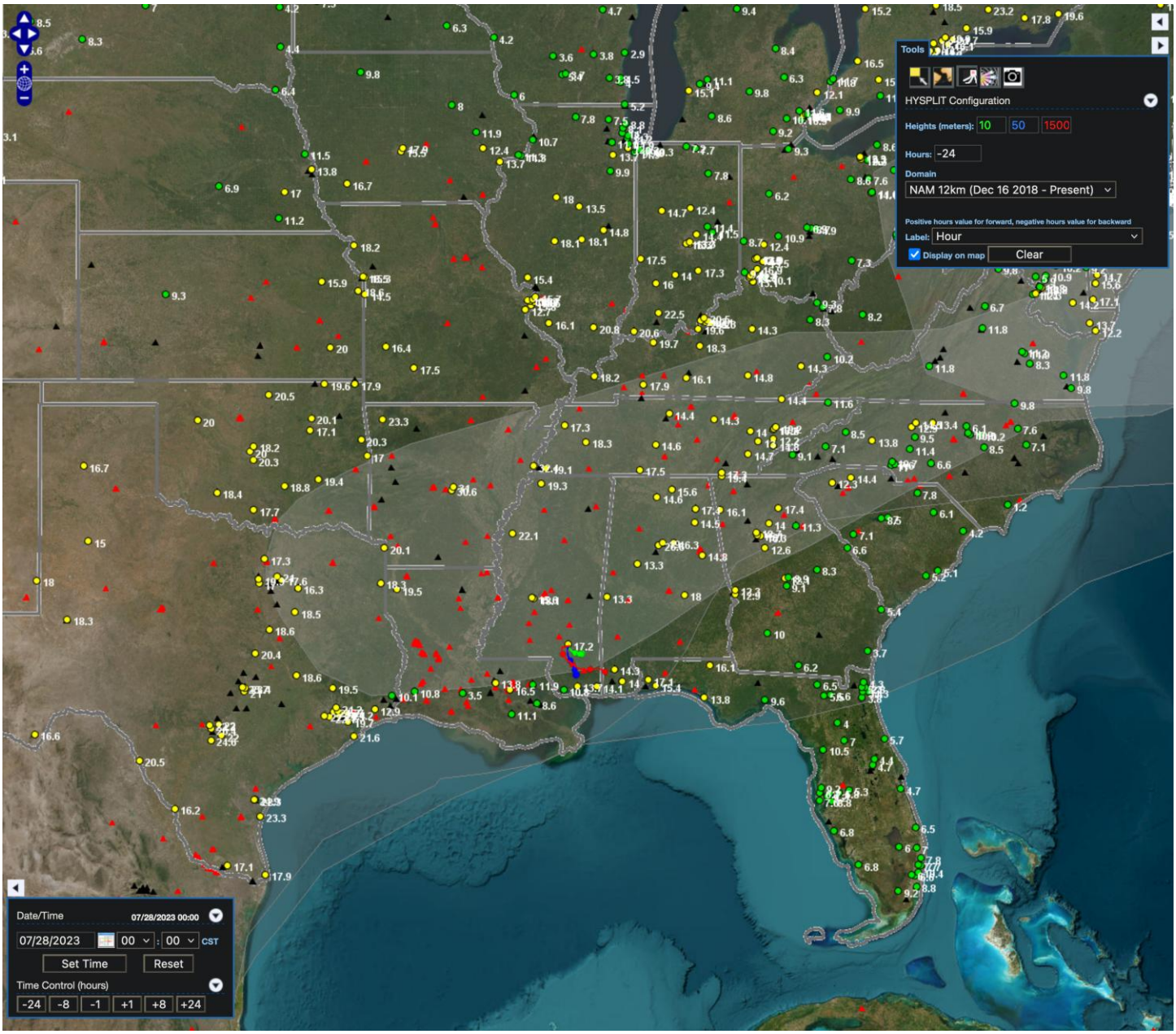
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/27/23	21.8	23	22.2	25.7	30.1	26.1	25.1	22.2	18.6	18	19	18.7	17.6	17.4	18	18.3	18.1	18.1	17.4	18.6	17.8	17.6	19	18.3	20.28	30.1

As shown in the image above, hourly PM2.5 concentrations at the Hattiesburg monitor on July 27th ranged from the teens to twenties (µg/m^3), as stagnant smoke from Canadian wildfires elevated particulate matter levels.

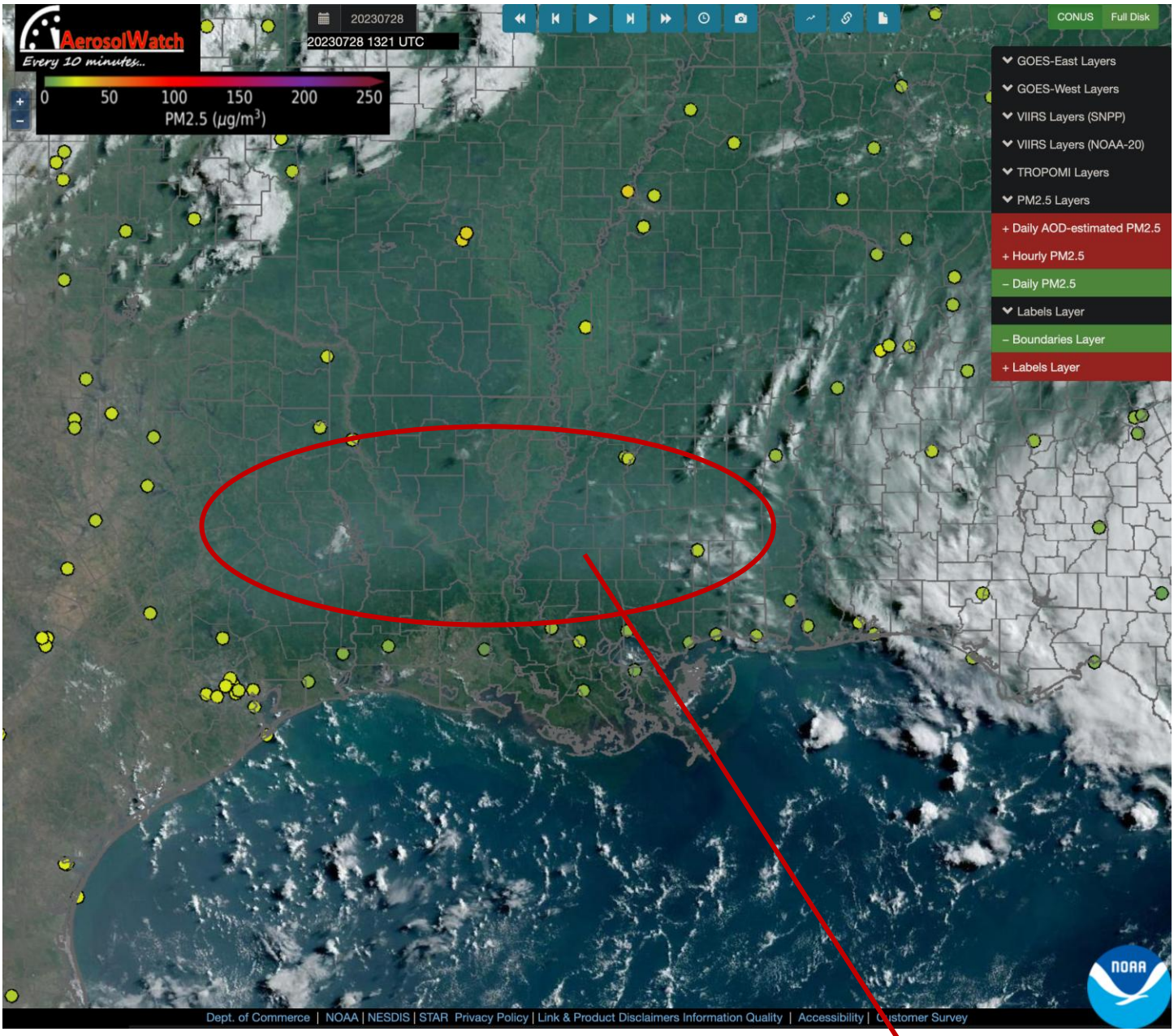
June 28th: Surface High pressure continued to dominate over the southeast bringing stable/stagnant conditions, allowing smoke that was transported from previous days to linger over the area, keeping PM2.5 values elevated at the Hattiesburg monitor.



The 00z surface analysis (July 28th, 2023, at 7 PM CDT) shows expansive surface High pressure over the southeastern United States, helping lead to stable/stagnant conditions, allowing PM2.5 values to remain elevated from wildfire smoke from Canada that was transported over the area from previous days.



The AirNowTech Navigator image taken on, June 28th, 2023, above shows batch of Canadian wildfire smoke that was transported in from previous days, remaining over the southeastern United States, keeping PM2.5 values elevated. 24-hour back trajectories at the10m, 50m, and 1500m levels, show very little movement of the parcels, indicating stagnant, stable conditions at the surface.

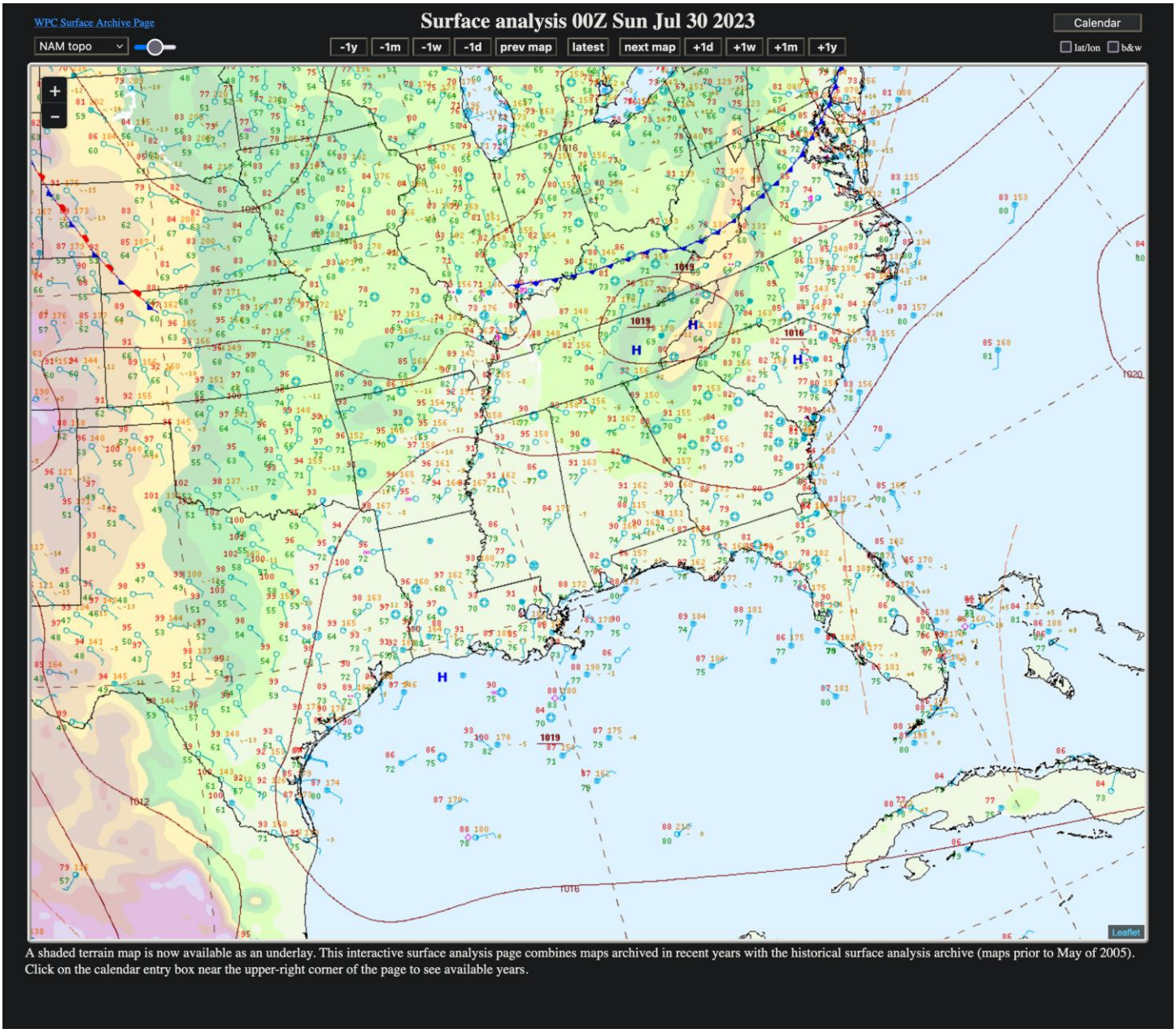


GOES East True Color image taken on July 28th, 2023, at 1321UTC, showing smoke shield from Canadian wildfires over the southeastern United States with a band of thicker smoke across central Louisiana and south-central Mississippi.

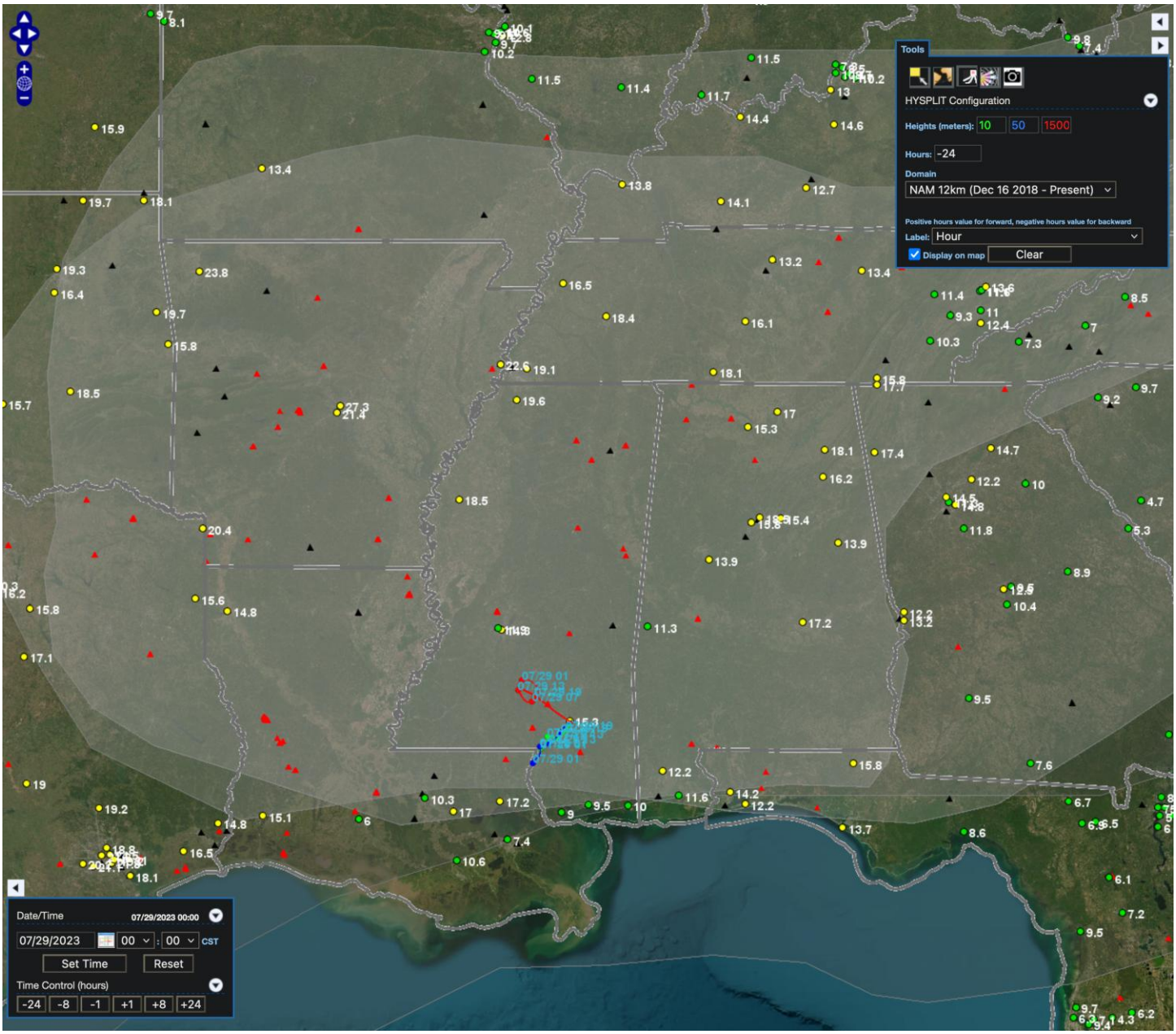
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/28/23	18.3	18.2	18.4	18.7	17.6	19	19.9	17.5	17	16.9	16.3	16.9	17.3	18.1	18.5	17.5	15.4	15.9	13.3	13.8	16	17.8	16.9	18.2	17.22	19.9

The hourly values at the Hattiesburg monitor on July 28th, shown in the image above, indicate PM2.5 levels in the teens. Stagnant smoke from Canadian wildfires elevated PM2.5 concentrations at the Hattiesburg monitor.

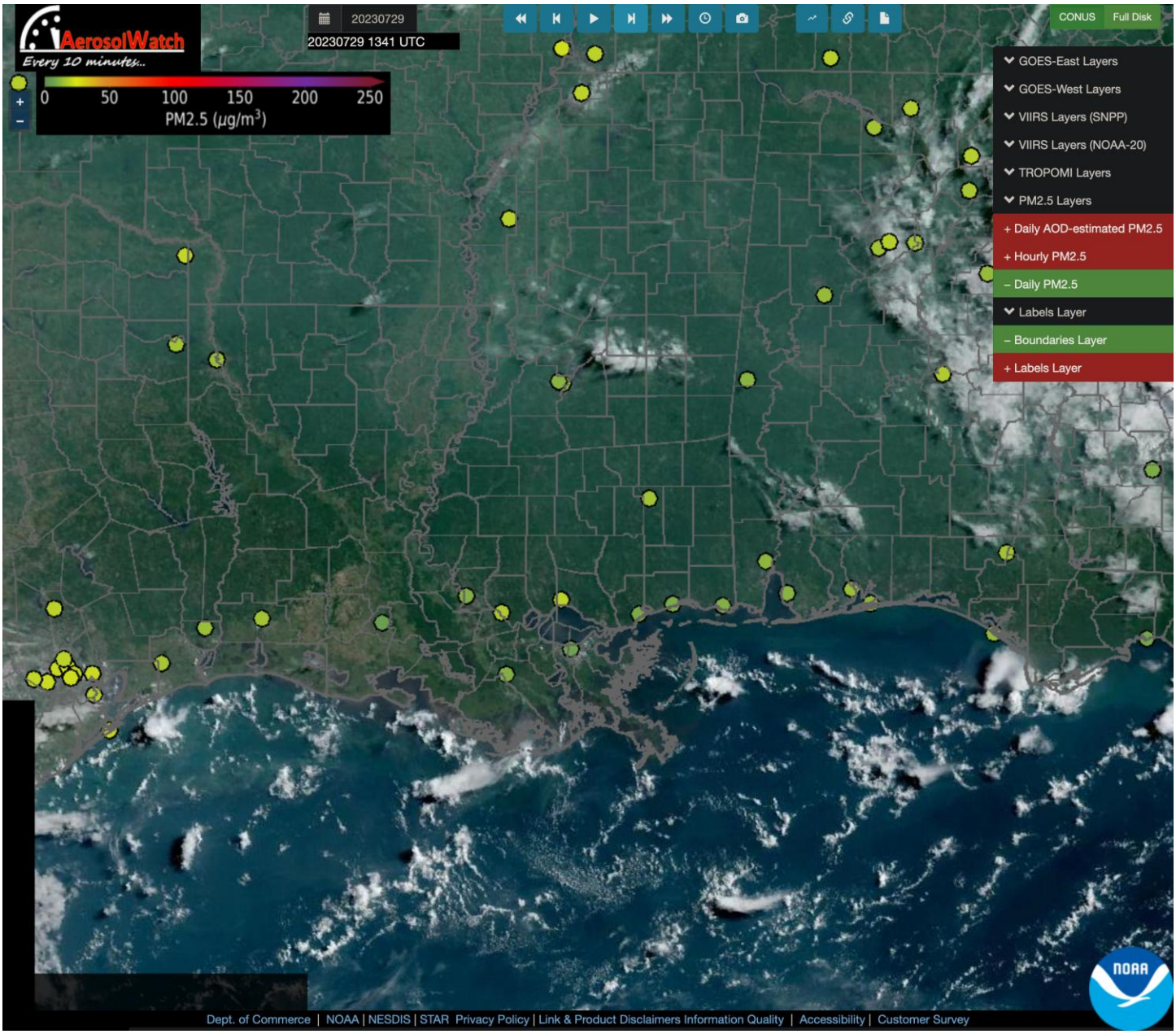
July 29th: Surface High pressure continued to dominate over the southeast bringing stable/stagnant conditions, allowing smoke that was transported from previous days to linger over the area, keeping PM2.5 values elevated at the Hattiesburg monitor.



The 00z surface analysis (July 29th, 2023, at 7 PM CDT) shows persistent surface High pressure over the southeastern United States, helping lead to stable/stagnant conditions, allowing PM2.5 values to remain elevated from wildfire smoke from Canada that was transported over the area from previous days.



The AirNowTech Navigator image taken on, July 29th, 2023, above shows batch of Canadian wildfire smoke that was transported in from previous days, remaining over the southeastern United States, keeping PM2.5 values elevated. 24-hour back trajectories at the10m, 50m, and 1500m levels, show very little movement of the parcels, indicating stagnant, stable conditions both at the surface and aloft.



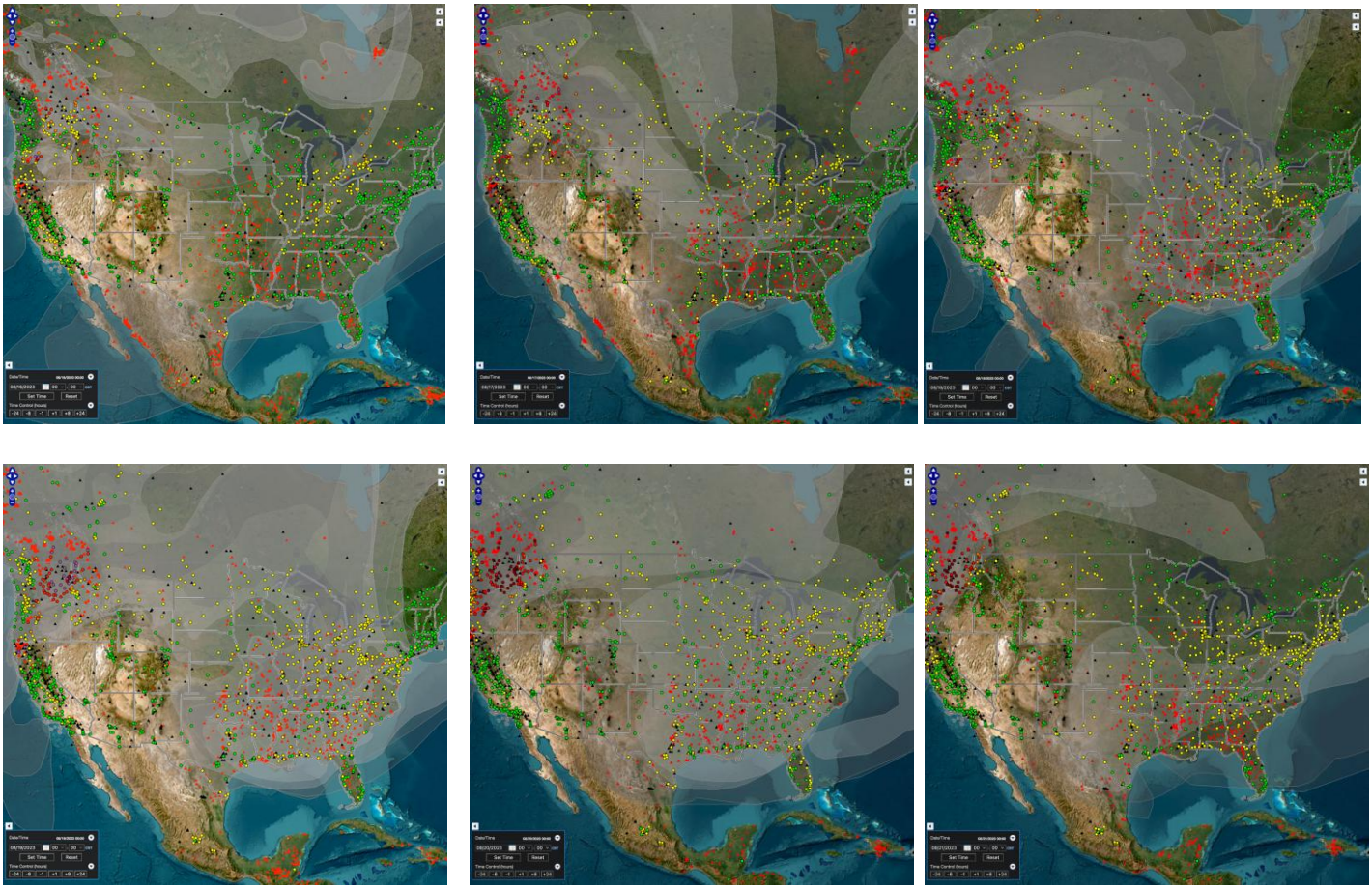
GOES East True Color image taken on July 29th, 2023, at 1341UTC, showing smoke shield from Canadian wildfires over the southeastern United States.

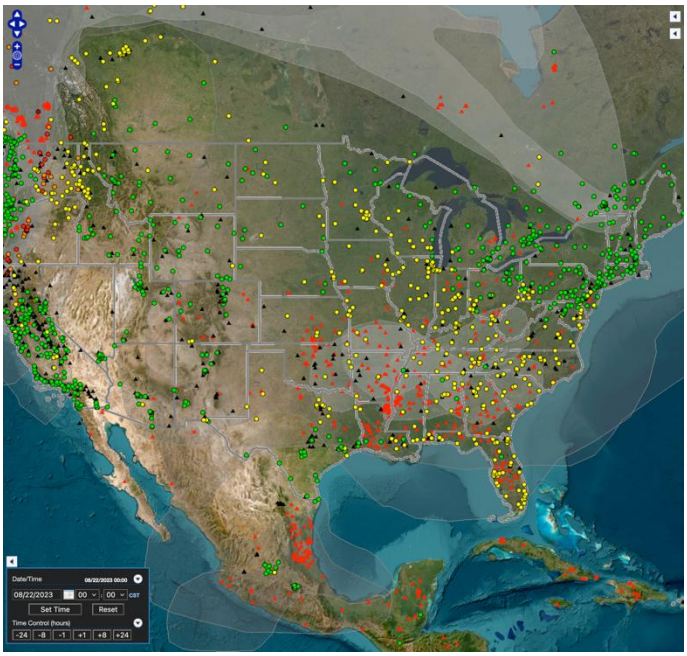
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	07/29/23	19.5	20.2	20.1	20.5	18.5	18.1	17.1	12.2	11.5	11.6	12.1	13.2	14.1	14.4	14.5	14.8	14.1	13.3	13.8	14.2	14.3	15.1	15.7	14.9	15.33	20.5

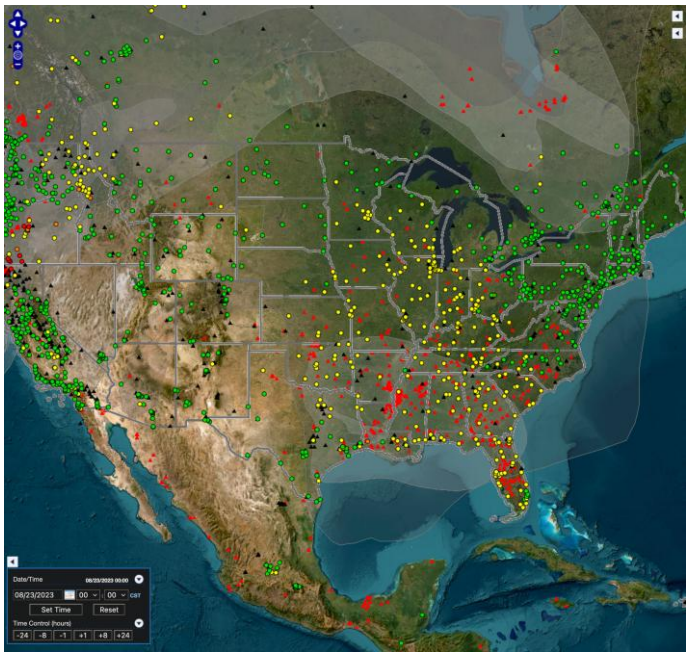
The hourly values at the Hattiesburg monitor on July 29th, shown in the image above, indicate PM2.5 levels in the teens. Stagnant smoke from Canadian wildfires elevated PM2.5 concentrations at the Hattiesburg monitor.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
Aug 18 – Aug 23, 2023	Canadian WF	RF	28-035-0004	Hattiesburg	14.9, 19.0, 17.5, 17.6, 17.9, 18.3	2, 3	Canadian Wildfire C Exceptional Event Demonstration: August 18 - 23, 2023

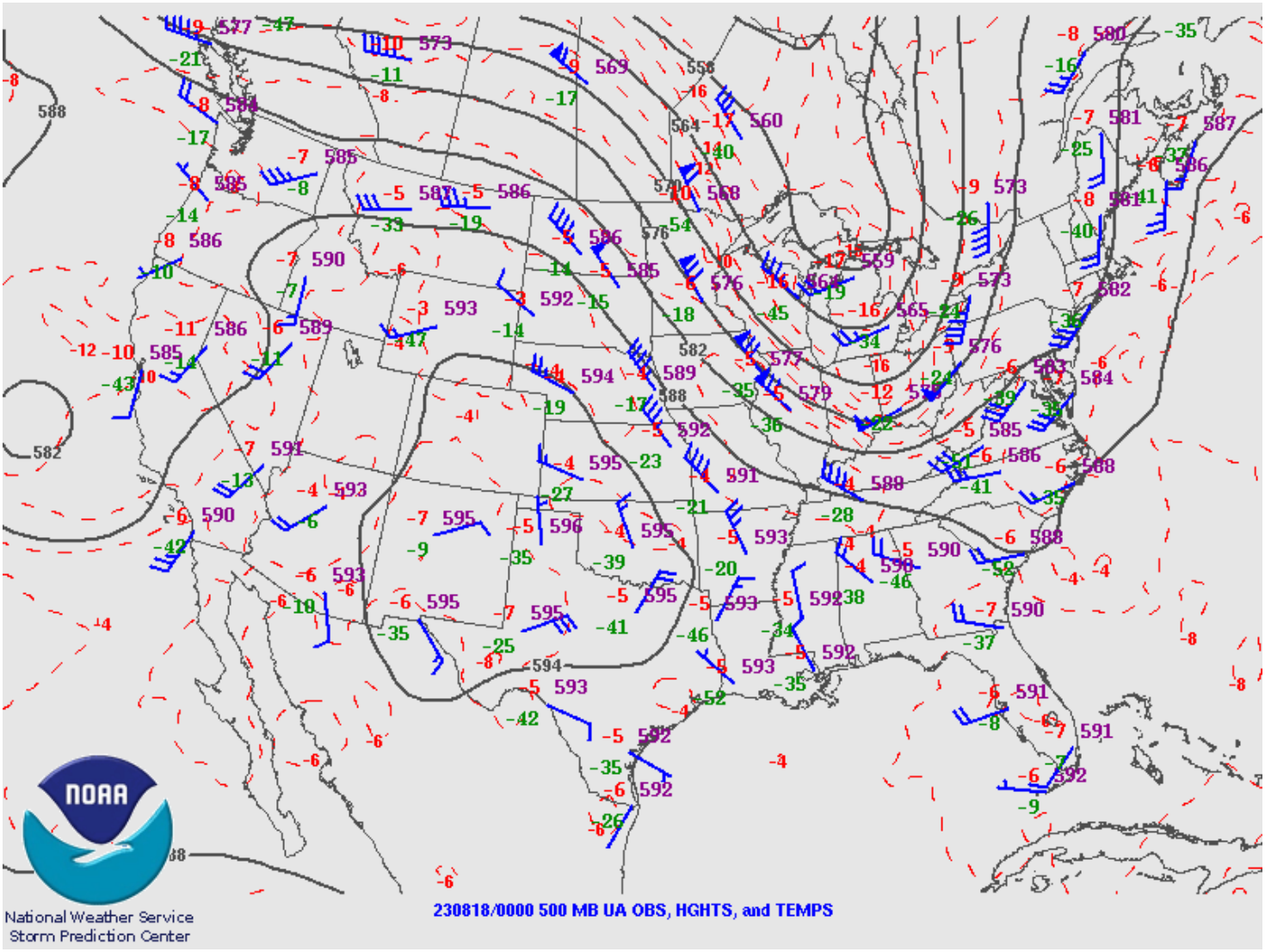
Synopsis: Numerous wildfires were ongoing in western and northwestern Canada, as well as in the province of Quebec, north of the Great Lakes, in the days leading up to the exceptional event demonstration. These fires generated a substantial shield of moderate to heavy smoke that spread across the northern tier of the United States, eventually reaching the Midwestern states. Due to upper level troughing over the eastern half of the United States, surface fronts extended down to the Gulf States, transporting smoke from the fires across the southeastern United States and Gulf States over several days.



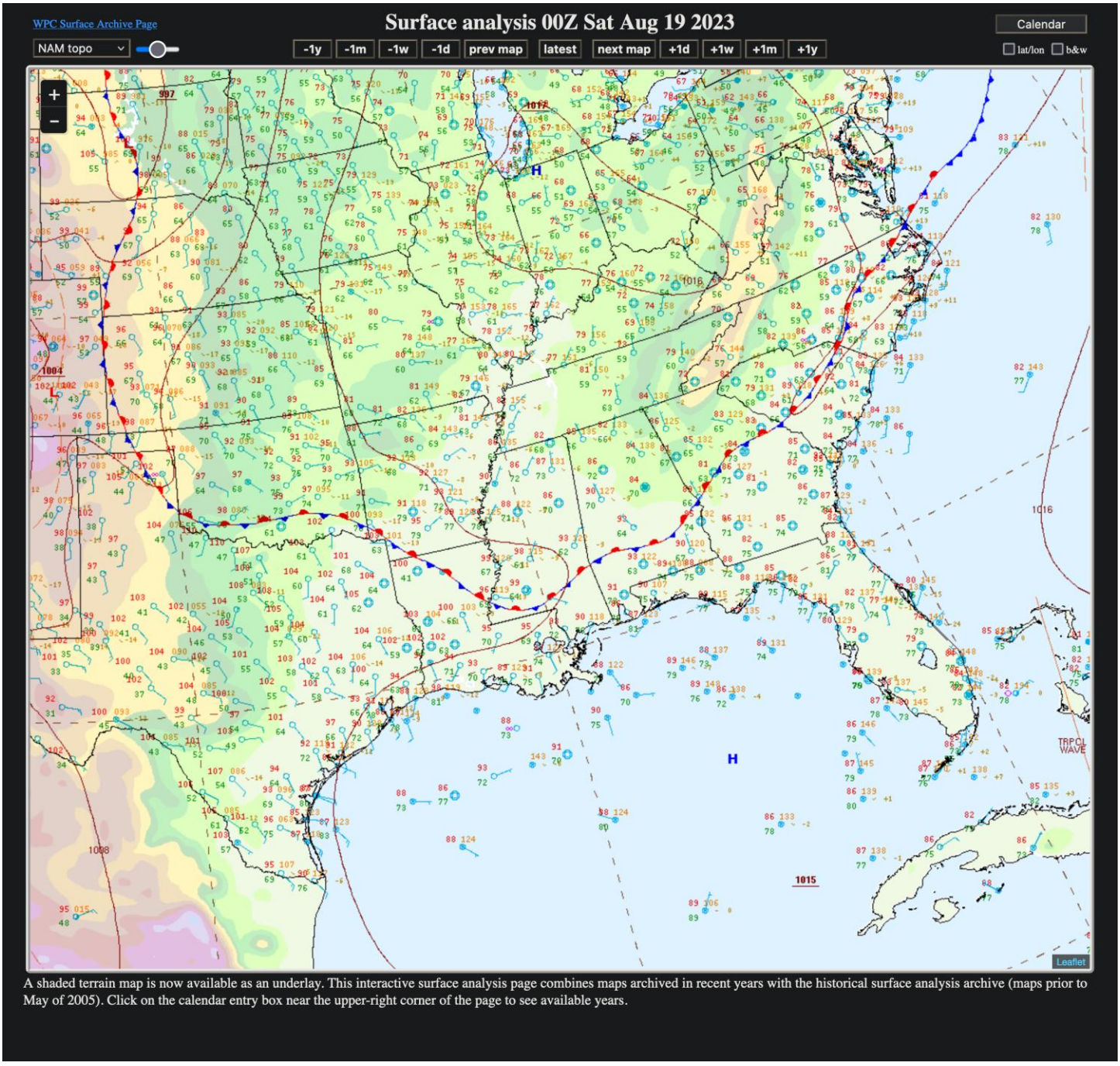




Series of AirNowTech Navigator image taken from August 16th, 2023, through August 23rd, 2023, show the progression of smoke from the Canadian wildfires, transporting into the northeastern United States, Midwest, the Ohio River Valley, and eventually into the Mid-South, and southeastern portions of the United States. Transport of the smoke into the United States was aided by frontal boundaries dropping down from Canada, helping transport smoke from the Canadian wildfires, deep into the southeastern United States, increasing PM2.5 values.



The 00Z upper-level analysis at 500 mb (August 17th, 2023, at 7 PM CDT) shows developing upper-level troughing over the eastern United States, which was amplified by a building ridge over the Four Corners region, further strengthening the pattern. This upper level troughing helped distribute smoke from the Canadian fires down to the Gulf States.



The 00z surface analysis (August 18th, 2023, at 7 PM CDT) shows stationary boundary, which was previously a cold front, that made its way all the way down deep into the Gulf States. Behind this frontal boundary was smoke filled air-mass from the Canadian wildfires.

The AirNowTech Navigator image from August 18th, 2023, shows a batch of smoke from Canadian wildfires that was transported down to the Gulf States. This movement was facilitated by a deep trough over the eastern United States, which helped surface frontal boundaries carry the smoke deep into the southeastern United States, elevating PM2.5 levels. Notice how the smoke follows the trough pattern seen in previous upper-level maps. An overlay of 48-hour back trajectories show air parcels moving from north to south behind the surface frontal boundary, providing further evidence of smoke transport from Canadian wildfires.

Friday, August 18, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0145Z August 19, 2023

SMOKE:
United States/Canada/Northern Mexico/Atlantic Ocean/Far Eastern Pacific
Ocean...
Rather widespread cloud cover was noted across portions of Alaska
and northwestern Canada which also limited information on some of the
recent wildfires and smoke impacting those regions. A large area of
smoke attributed primarily to the numerous wildfires in western and
northwestern Canada was seen this afternoon and evening covering much
of Canada and the U.S. including far eastern Alaska, a portion of the
Atlantic just off the U.S. east coast, the Labrador Sea, some of the
north Atlantic, the northern Gulf of Mexico, northern Mexico, and a
small part of the east Pacific off the Baja coast. Areas of moderate to
high density smoke was seen across parts of northwestern and far north
central Canada through breaks in the clouds. Higher density smoke was
present over southwestern Canada along with the far northern parts of
northeastern Washington, northern Idaho, and northwestern Montana, and
extending to the east from there to south central Canada. Patches of
thicker smoke had also spread to the south and southeast over some of
the central U.S. A relatively narrow band of moderately dense smoke was
visible across the Mississippi Valley, southeastern U.S. and along/off
the the Mid-Atlantic coast and along the northeast US coast.

Northwestern California/Central and Southern Oregon/Central and Southern
Idaho/Western Montana/Northern Central Washington…
Wildfires seen across northern California and west central Oregon were
responsible for areas of moderate to thick density smoke which extended
from off the southwest Oregon, northern California coast, west-central
Oregon, southern Oregon, and northern California and into central/southern
Idaho and west central Montana. Thinner density smoke extended a bit
farther off the Oregon and California coast linked mainly to these
fires. In Washington State, wildfires in the north central part of the
state and east central parts can be seen producing moderate density to
some high density smoke moving east.

DUST:
Southern Gulf of Mexico/Central America/Yucatan Peninsula/Southern
Florida/Bahamas/Caribbean Region/Atlantic Ocean…
A sprawling area of generally thin density Saharan dust was visible
this afternoon and early evening extending from the Bay of Campeche, the
Yucatan Peninsula, and some of Central America to the east and northeast
over virtually all of the Caribbean region, the southern Gulf of Mexico,
southern Florida, and the Bahamas. A thicker area was seen over the
open Atlantic.

JK

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

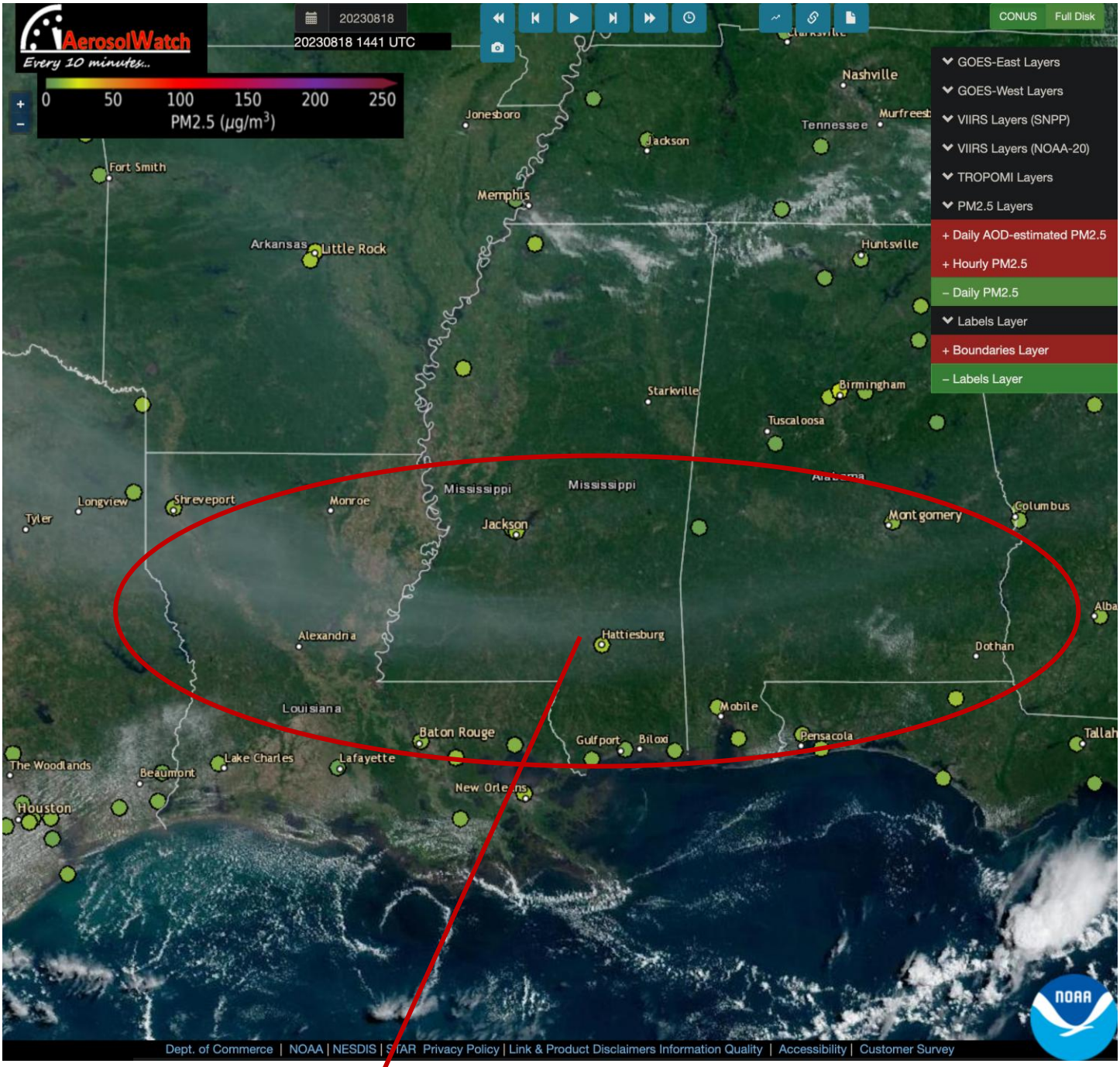
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

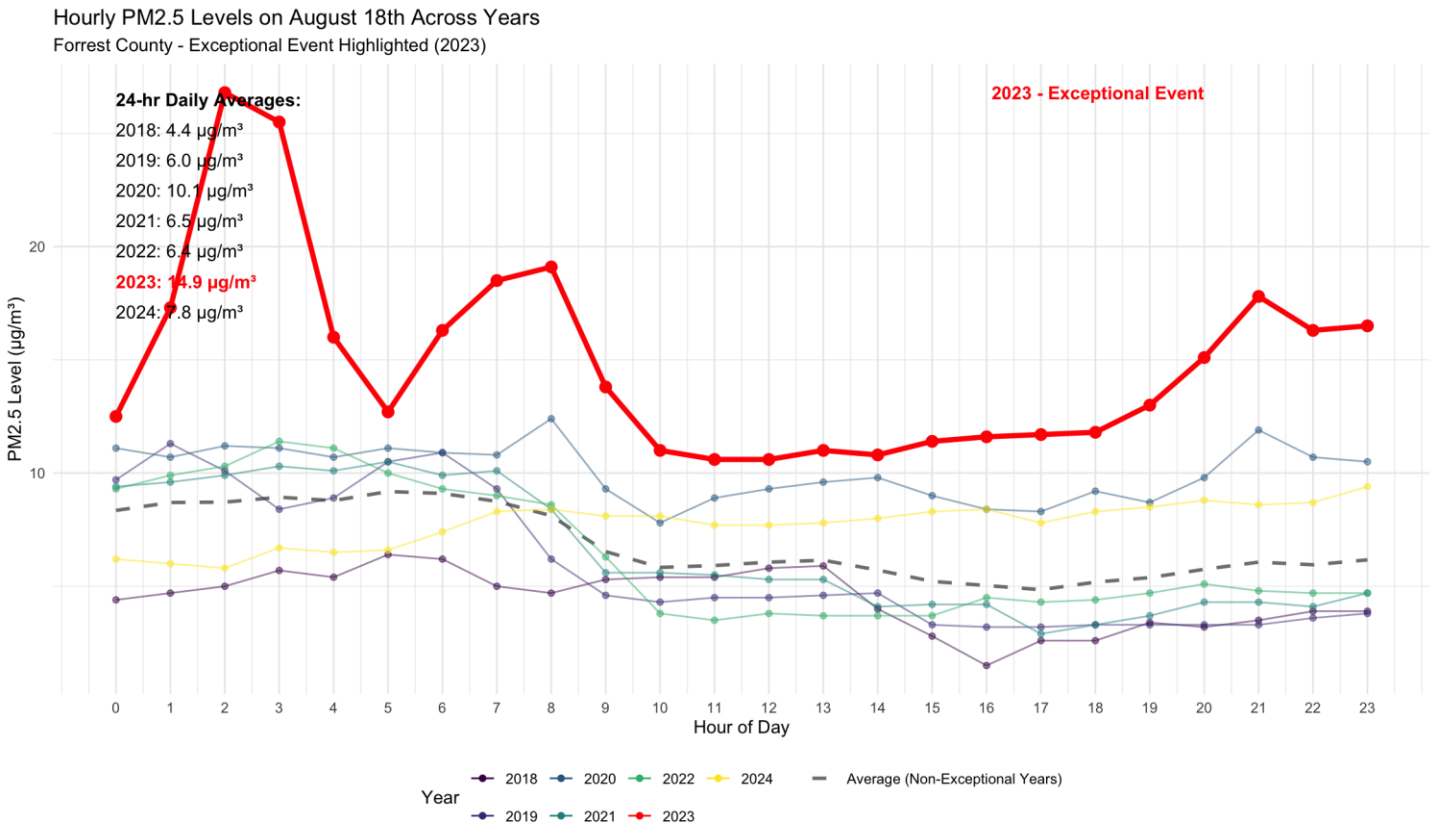
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H190215.html) narrative August 19th, 2023 at 0145Z (August 18th, 2023 at 08:45PM CDT), describing the smoke situation and how Canadian transport smoke has been transported down to the southeastern United States.



GOES East True Color image taken on August 18th, 2023, at 1441UTC, showing leading edge of smoke shield from Canadian wildfires beginning to move over the Hattiesburg monitor, elevating PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/18/23	13.4	18.2	27.7	26.4	16.9	13.6	17.2	19.4	20	14.7	11.9	11.5	11.5	11.9	11.7	12.3	12.5	12.6	12.7	13.9	16	18.7	17.2	17.4	15.8	27.7

The hourly values at the Hattiesburg monitor on August 18th, shown in the image above, indicate elevated PM2.5 levels in the morning hours as the leading edge of smoke from Canadian wildfires moved into the area. Diurnal heating allowed for mixing during the day, which helped disperse pollutants. However, PM2.5 levels spiked again overnight due to the development of a nocturnal inversion and stagnant conditions.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 14.9ug/m^3.

August 19th: Continental high pressure following the previous days' frontal passage continued to dominate the eastern two-thirds of the United States, steadily ushering in smoke from Canadian wildfires across the Mid-South and southeastern United States. Once the Canadian smoke spread across the southeast, the upper-level trough that had facilitated the smoke transport was replaced by strong upper-level ridging. This upper-level ridging, combined with high pressure at the surface, created a very stagnant air mass with little to no ventilation or mixing, trapping the smoke over the area.

Saturday, August 19, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0130Z August 20, 2023

SMOKE:
United States/Canada/Northern Mexico/Atlantic Ocean/Eastern Pacific Ocean...
Widespread cloud cover continued across portions of Alaska and northwestern Canada which also limited on some of the recent wildfires and smoke impacting those regions. Numerous wildfires were still seen over a portion of the Northwest Territories, northern Alberta, and scattered across British Columbia in Canada. Also wildfires continued to burn in parts of Washington, Idaho, western Montana, western Oregon, and northwestern California. For the smoke, western Canadian wildfires and northwestern U.S. wildfires were responsible for a very large area of moderate to thick density smoke which was seem from off the west coast of California/Oregon/Washington through the Pacific Northwest across the northern US and into the Great Lakes region then south through the Ohio Valley, Mississippi Valley, southeast, Mid Atlantic US and back into the Southern and Central Plains. In Canada the smoke extended from off the Pacific coast through most of western and central Canada and into parts of eastern Canada. The larger surrounding area of thinner density smoke was seen over much of Canada and the U.S., northern Mexico, the northern Gulf of Mexico, and a relatively small part of the far eastern Pacific off the U.S. west coast and portions of the western and northern Atlantic.

From Earlier Today:

DUST:
Southern Gulf of Mexico/Central America/Yucatan Peninsula/Southern Florida/Bahamas/Caribbean Region/Atlantic Ocean…
A sprawling area of generally thin density Saharan dust was visible this morning extending from the Bay of Campeche, the Yucatan Peninsula, and some of Central America to the east and northeast over virtually all of the Caribbean region, the southern Gulf of Mexico, southern Florida, and the Bahamas. A thicker area was seen to the north of the Caribbean region and east of the Bahamas along and ahead of a frontal boundary over the western Atlantic.

JK

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

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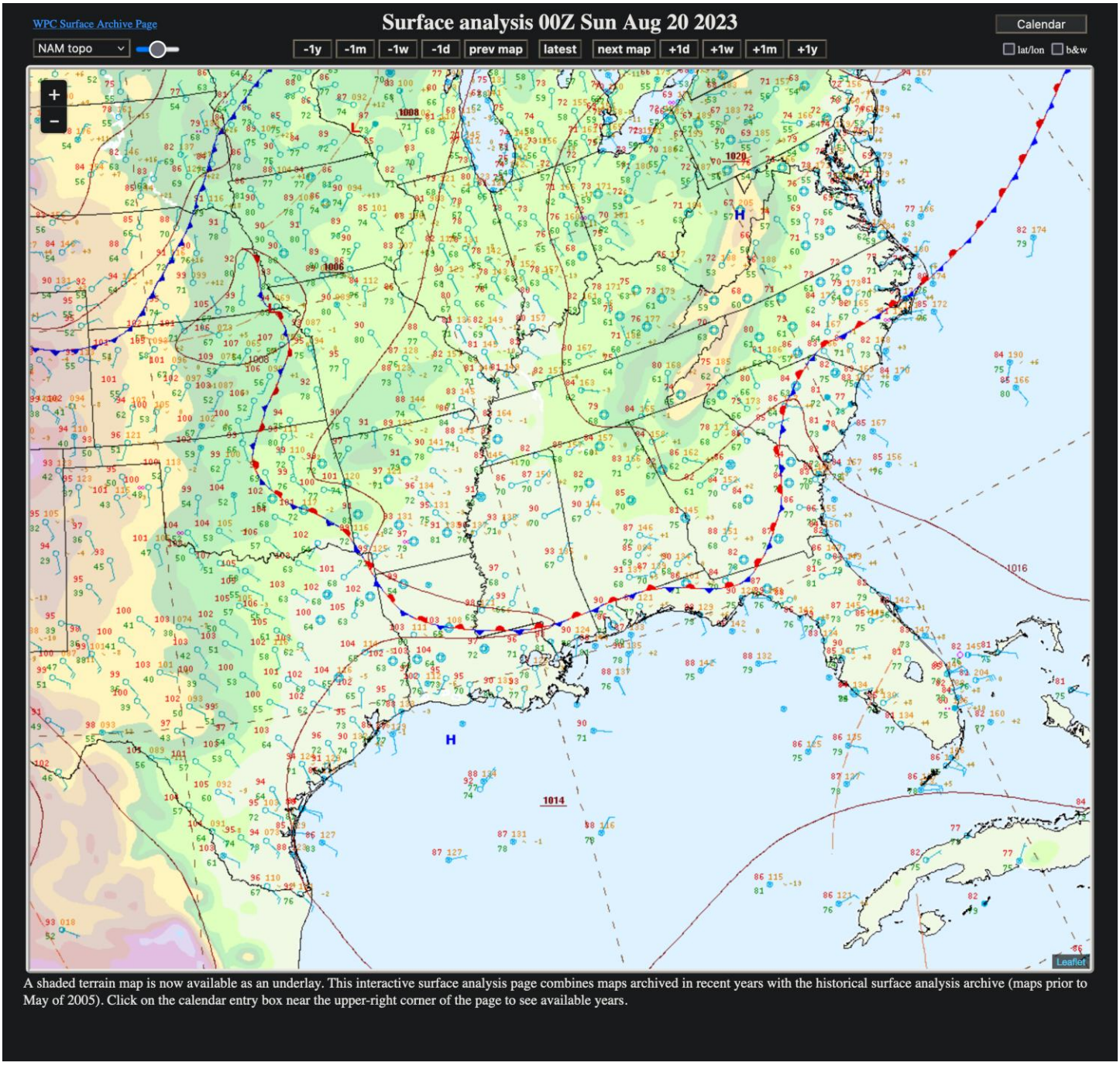
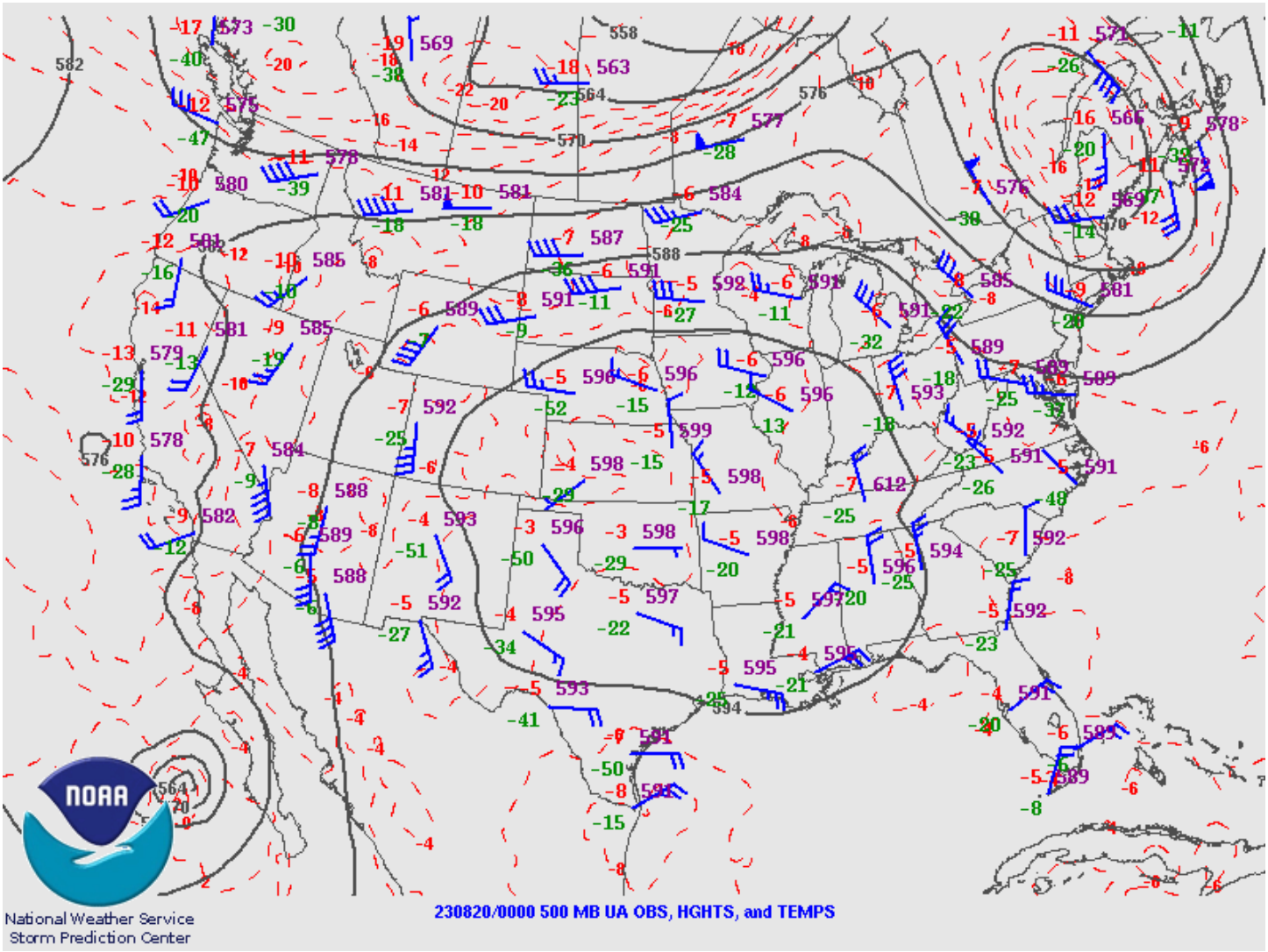
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

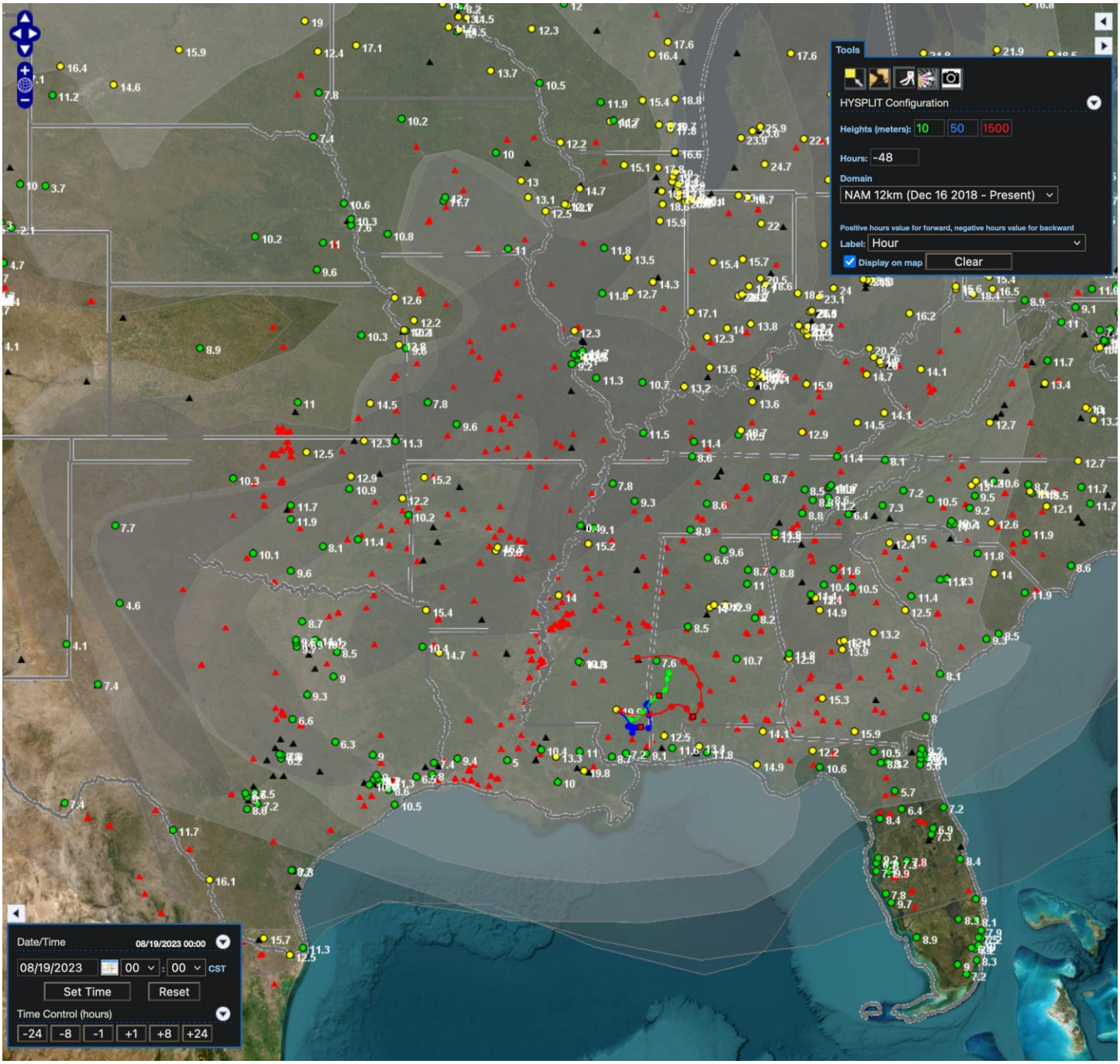
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H200150.html) narrative from August 20th, 0130Z (August 19th, 2023 at 8:30PM CDT), describing the smoke situation and how Canadian transport smoke has been transported and made its way down to the southeastern United States.



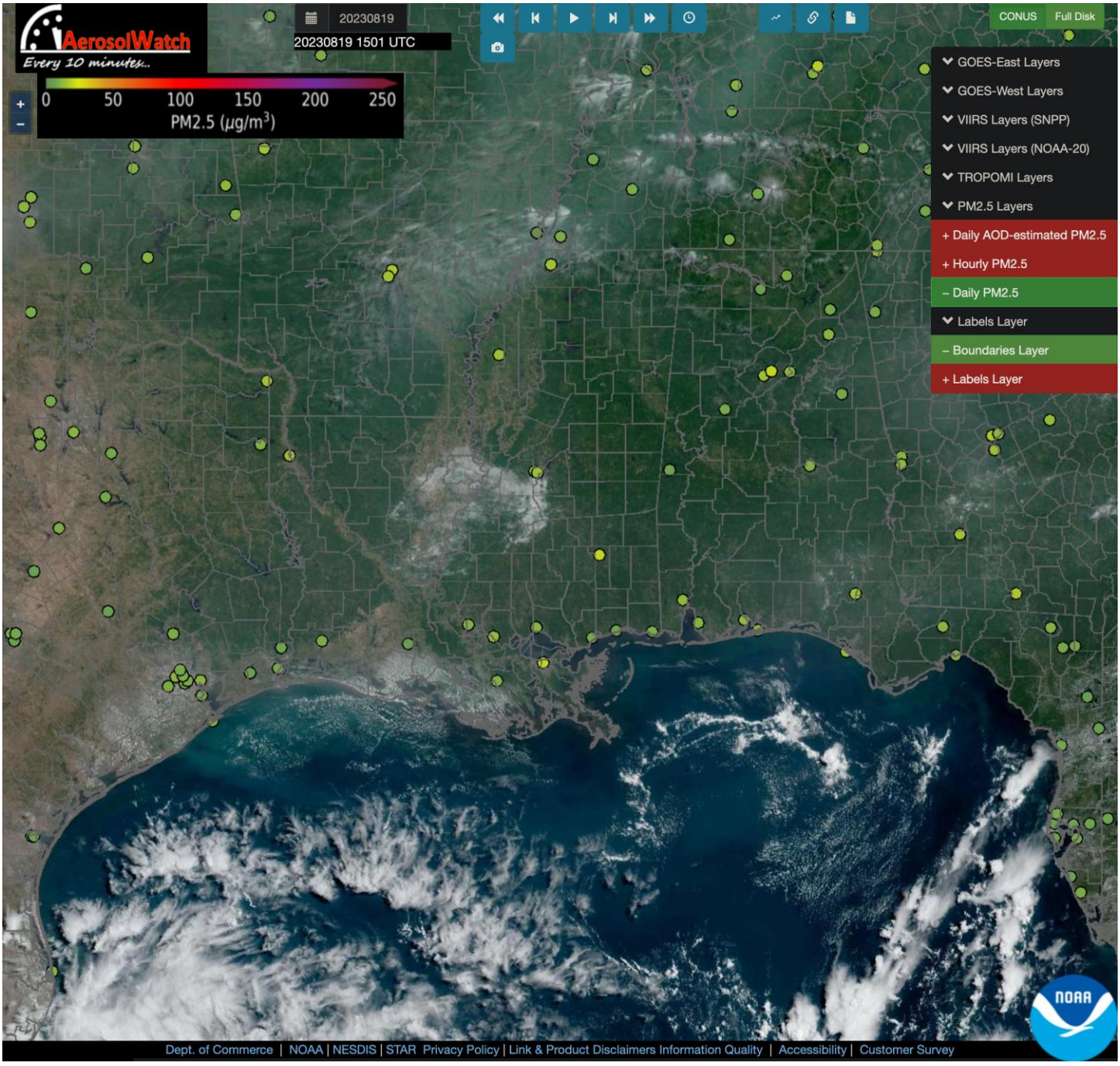
The 00z surface analysis (August 19th, 2023, at 7 PM CDT) shows previous days stationary boundary, which was previously a cold front, remains hung up across the lower Gulf South. Behind this frontal boundary surface High pressure is in firm control across the eastern 2/3rds of the United States, bringing with it very stable conditions, preventing mixing/ventilation of surface smoke in place.



The 00Z upper-level analysis at 500 mb (August 19th, 2023, at 7 PM CDT) shows expansive strong 594dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the surface smoke from the Canadian fires near the surface that was transported in from previous days surface frontal boundary.



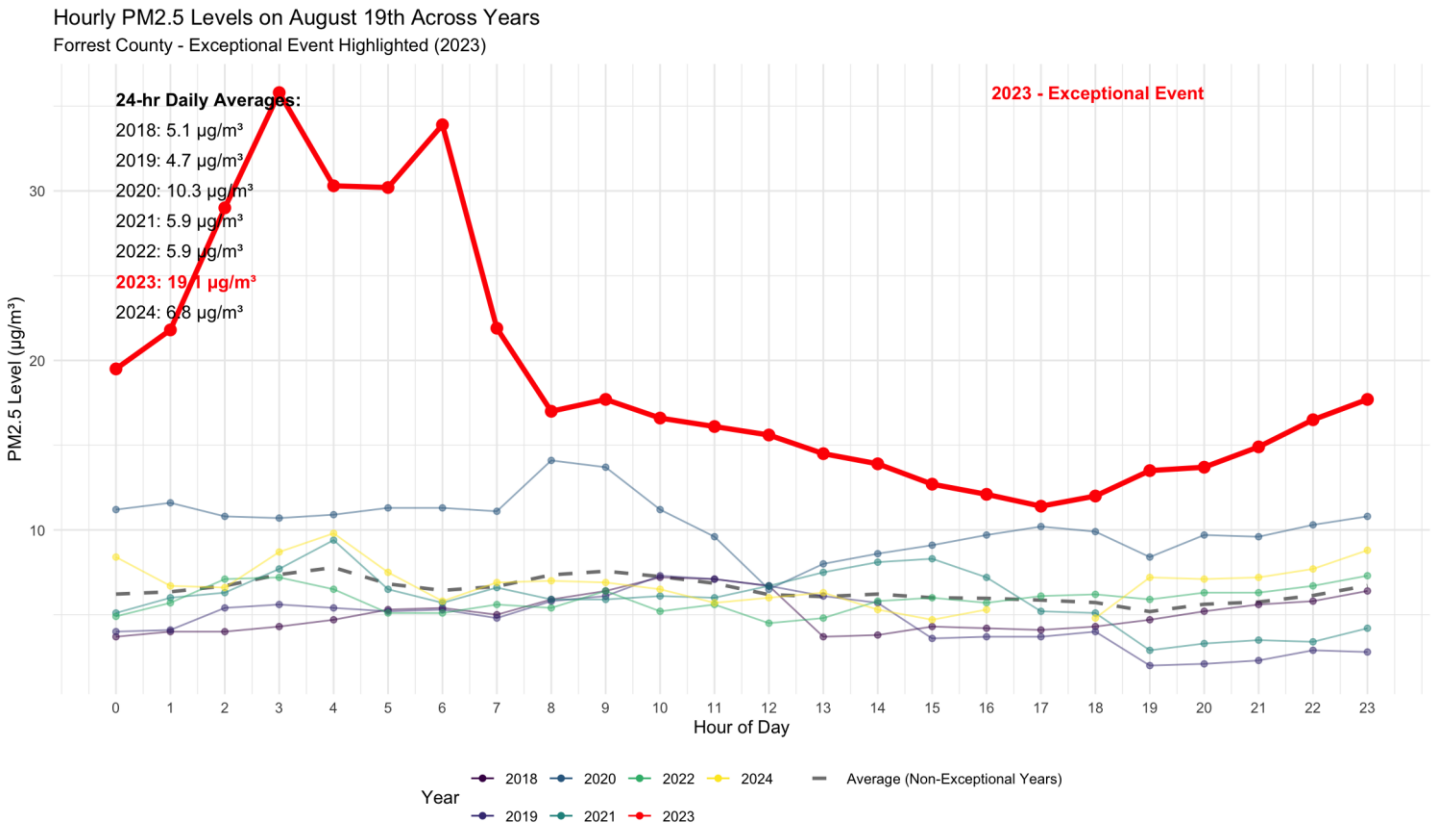
The AirNowTech Navigator image from August 19th, 2023, shows a batch of smoke from Canadian wildfires that was transported down encompasses all the Mid-South and southeastern United States. Overlaid are 48-hour back trajectories, showing very little movement at 10m, 50m, and 1500m, indicating very stagnant conditions.



GOES East True Color image taken on August 19th, 2023, at 1501UTC, showing smoke shield from Canadian wildfires encompassing most of the southeastern United States, elevating PM2.5 values.

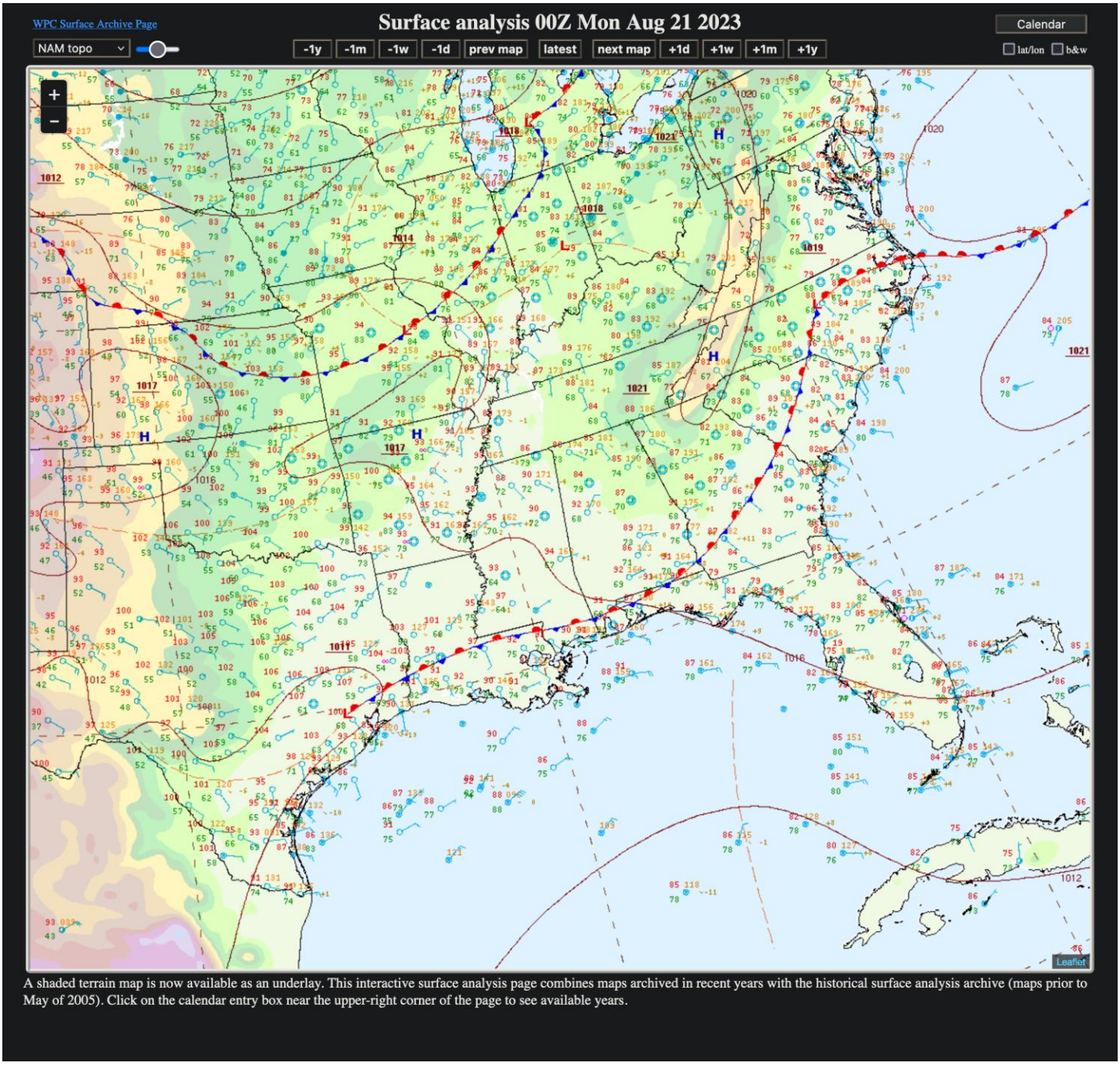
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/19/23	20.4	22.7	29.9	36.7	31.2	31.1	34.8	22.8	17.9	18.6	17.5	17	16.5	15.4	14.8	13.6	13	12.3	12.9	14.4	14.6	15.8	17.4	18.6	20	36.7

The hourly values at the Hattiesburg monitor on August 19th, shown in the image above, indicate elevated PM2.5 levels in the morning due to a strong nocturnal inversion, which trapped pollutants near the surface with PM2.5 values reaching into the thirties. Diurnal heating allowed for mixing during the day, helping to disperse pollutants. However, even with limited mixing, PM2.5 levels remained elevated in the teens due to strong ridging aloft and high pressure at the surface. As a nocturnal inversion developed again during the evening of the 19th, PM2.5 values began to increase once more, continuing overnight into the 20th.

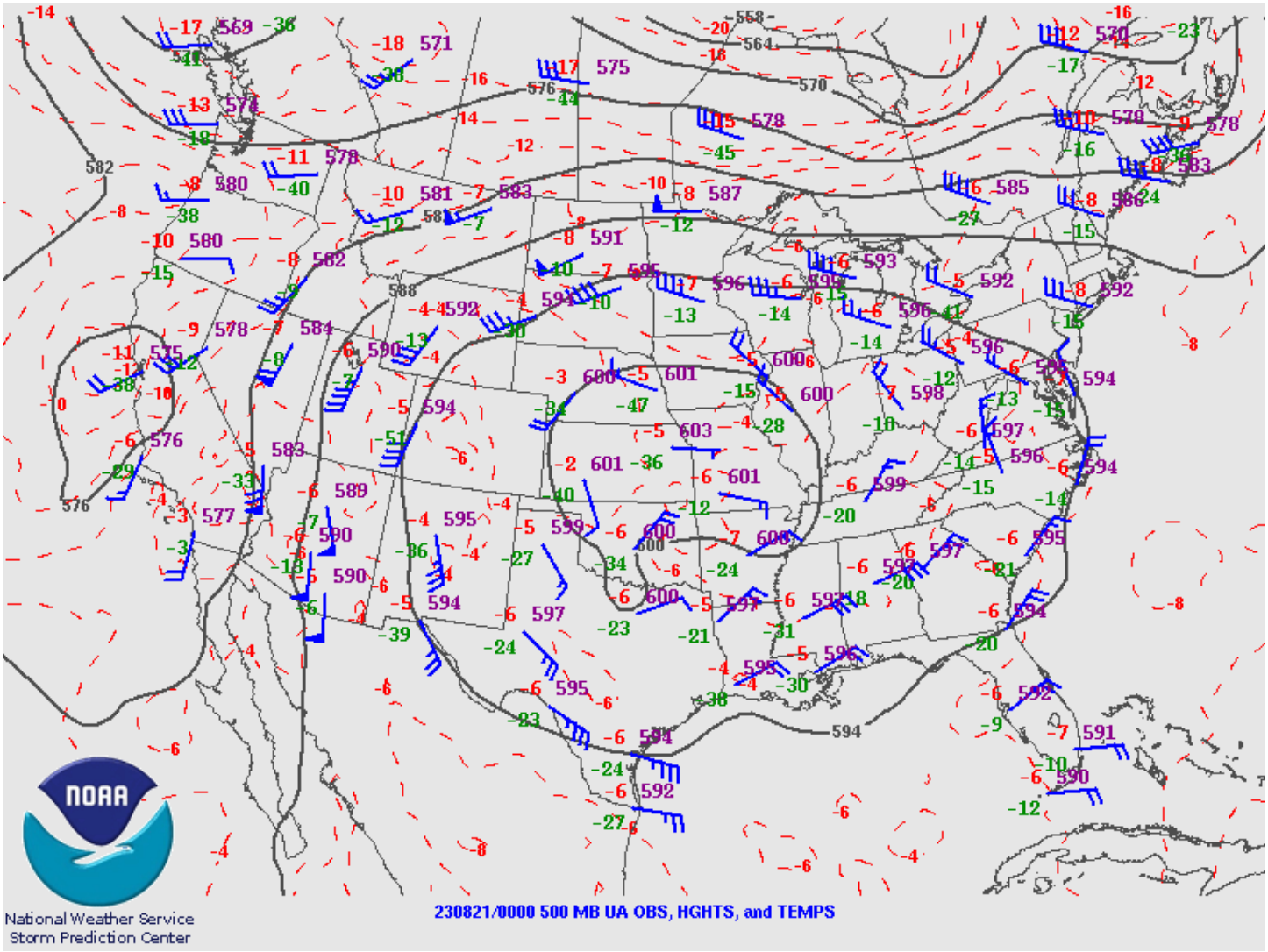


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 19.1ug/m^3.

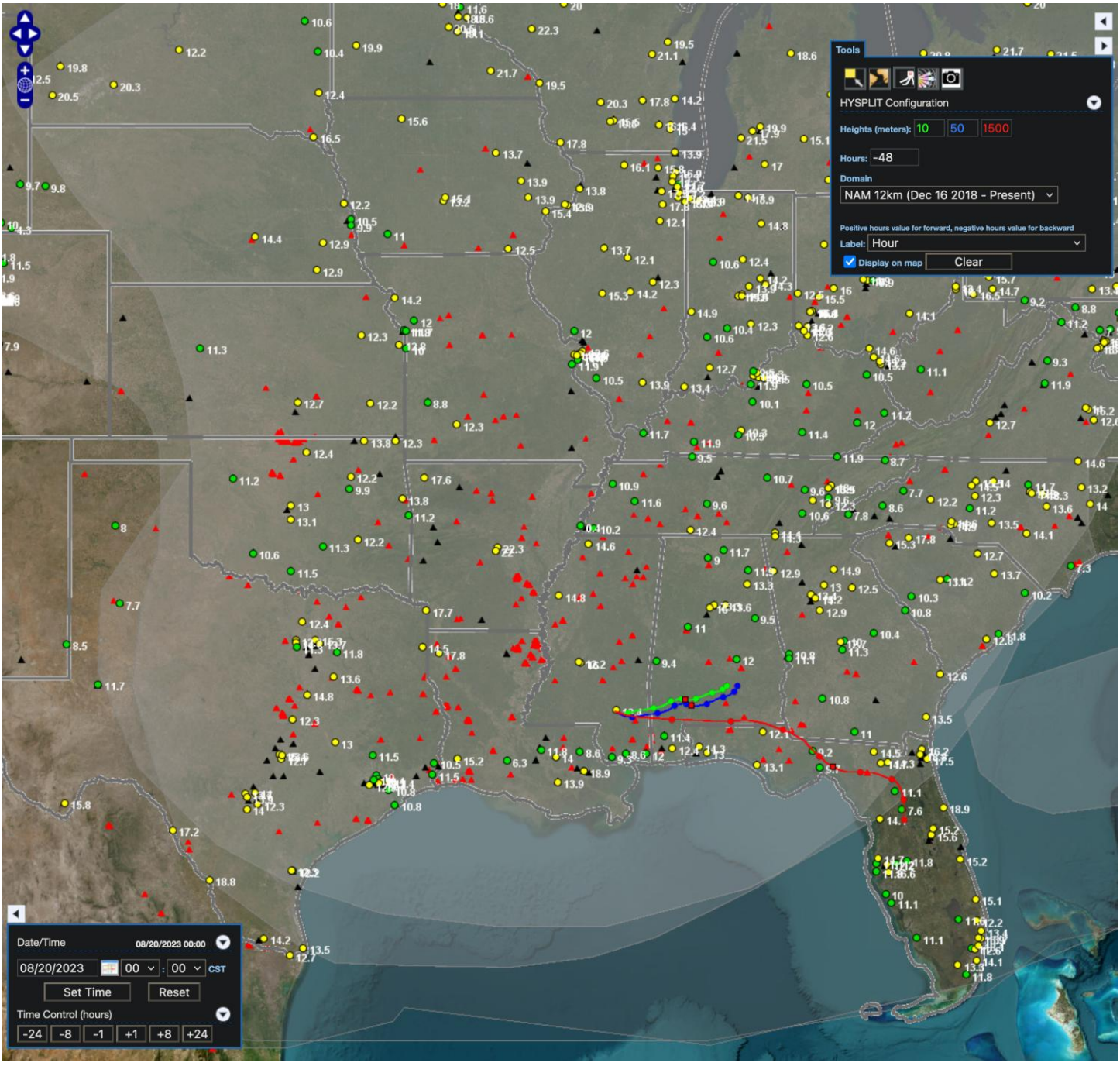
August 20th: August 20th was nearly a carbon copy of August 19th, with high pressure at the surface firmly controlling the southeastern United States. This was coupled with a large 594 dm upper-level ridge covering most of the country, creating stable and stagnant conditions with strong subsidence. These conditions trapped the smoke transported into the southeast in previous days, keeping PM2.5 values elevated.



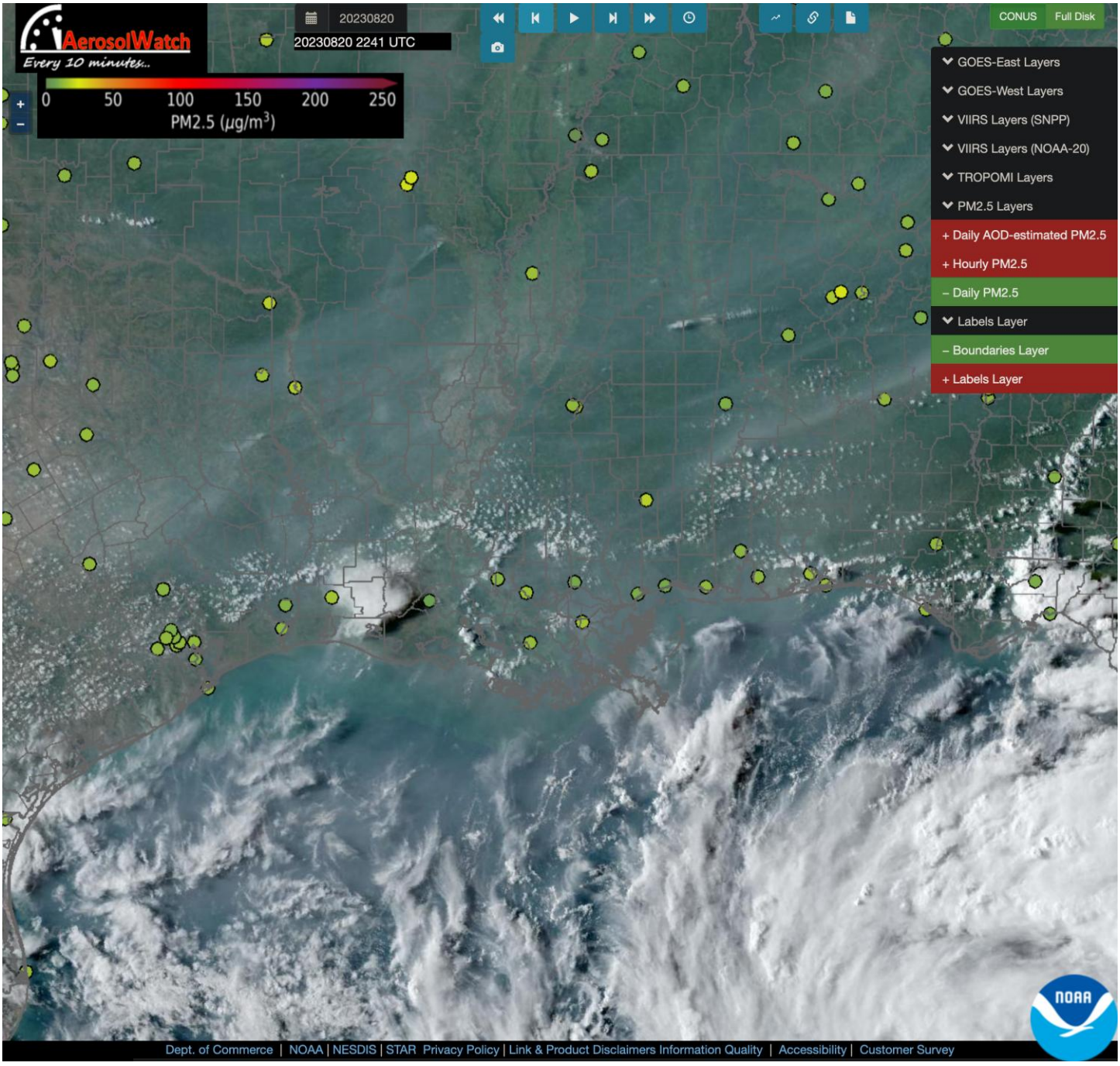
The 00z surface analysis (August 20th, 2023, at 7 PM CDT) shows previous days stationary boundary, which was previously a cold front, remains hung up across the lower Gulf South. Behind this frontal boundary surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of surface smoke in place.



The 00Z upper-level analysis at 500 mb (August 20th, 2023, at 7 PM CDT) shows a whopping 600dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the surface smoke from the Canadian fires near the surface that was transported in from previous days surface frontal boundary.



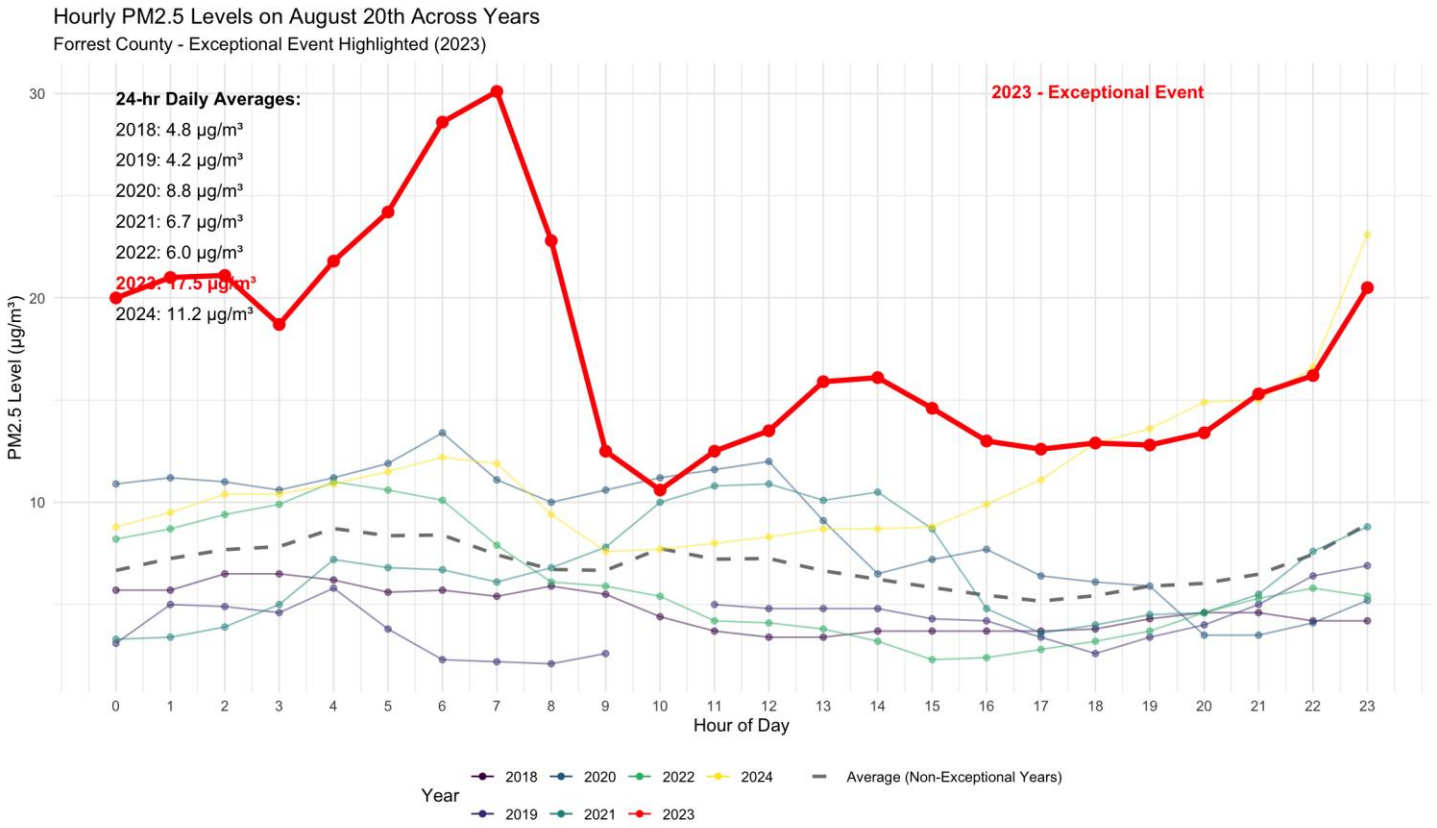
The AirNowTech Navigator image from August 20th, 2023, shows a large batch of smoke from Canadian wildfires that was transported down encompasses much of the eastern 2/3rds of the United States. Overlaid are 48-hour back trajectories, showing very little movement at 10m, 50m, indicating very stagnant conditions across the area.



GOES East True Color image taken on August 20th, 2023, at 2241UTC, showing smoke shield from Canadian wildfires encompassing most of the southeastern United States, elevating PM2.5 values.

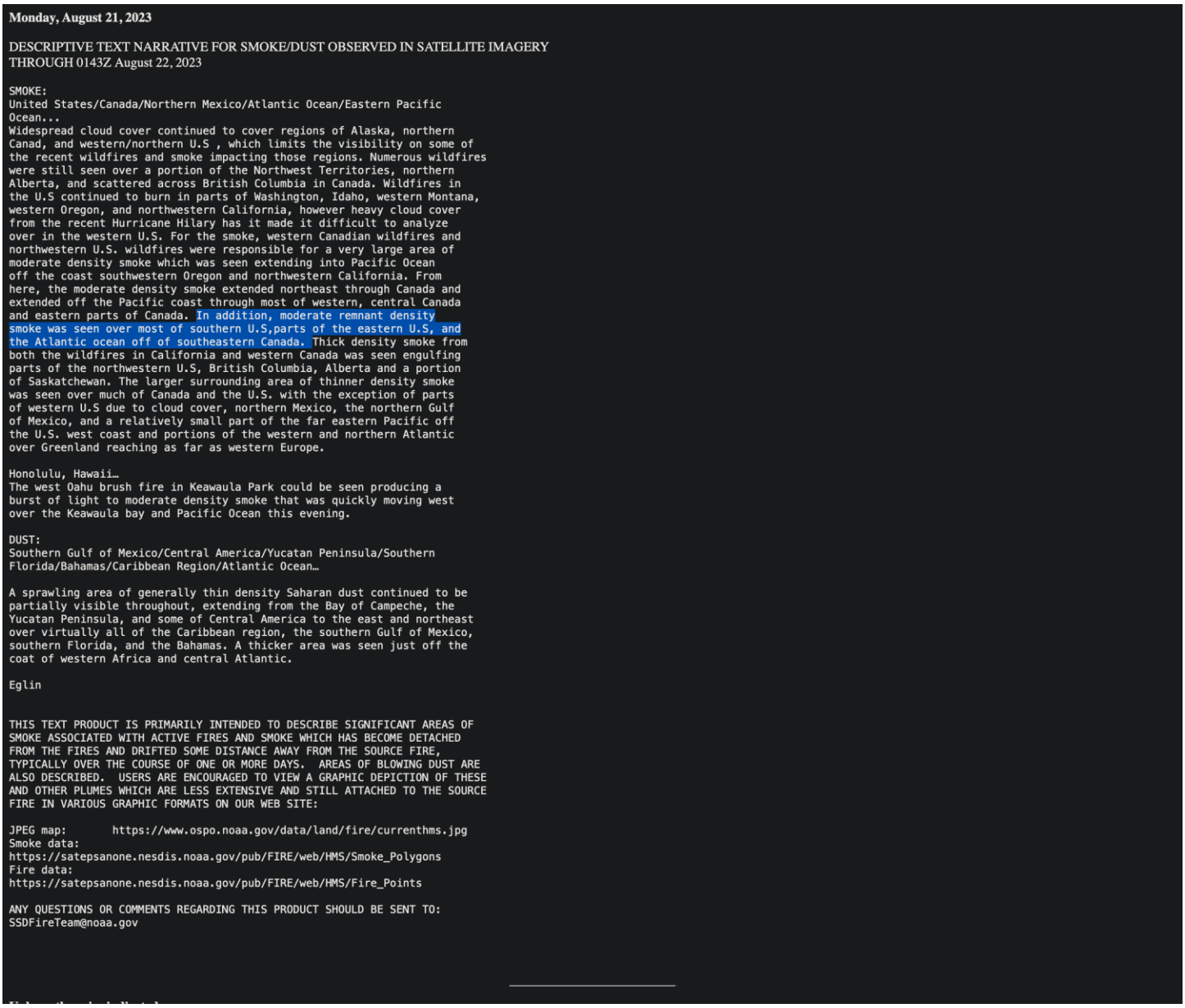
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/20/23	20.9	21.9	22	19.6	22.7	25.1	29.5	31	23.7	13.4	11.5	13.4	14.4	16.8	17	15.5	13.9	13.5	13.8	13.7	14.3	16.2	17.1	21.4	18.43	31

The hourly values at the Hattiesburg monitor on August 20th, shown in the image above, indicate elevated PM2.5 levels in the morning due to a strong nocturnal inversion, which trapped pollutants near the surface with PM2.5 values reaching into the thirties. Diurnal heating allowed for subtle mixing during the day, helping to disperse pollutants ever so slightly. However, even with limited mixing, PM2.5 levels remained elevated in the teens due to strong ridging aloft and high pressure at the surface. As a nocturnal inversion developed again during the evening of the 20th, PM2.5 values began to increase once more, continuing overnight, into the 21st.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian air-mass kept PM2.5 values elevated at the Hattiesburg monitor, allowing the 24-hour average to be 17.5ug/m^3.

August 21st: Carbon copy of previous days weather set up with not much day-to-day change as 1020mb surface High pressure remains in firm control of the southeastern United States coupled with large 600+ dm ridge at 500mb centered across the Midwest, leading to very stable/stagnant conditions, continuing to lock in the residual smoke from the Canadian wildfires in the south and southeastern United States, keeping PM2.5 values elevated.



Monday, August 21, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0143Z August 22, 2023

SMOKE:
United States/Canada/Northern Mexico/Atlantic Ocean/Eastern Pacific
Ocean...
Widespread cloud cover continued to cover regions of Alaska, northern
Canad, and western/northern U.S , which limits the visibility on some of
the recent wildfires and smoke impacting those regions. Numerous wildfires
were still seen over a portion of the Northwest Territories, northern
Alberta, and scattered across British Columbia in Canada. Wildfires in
the U.S continued to burn in parts of Washington, Idaho, western Montana,
western Oregon, and northwestern California, however heavy cloud cover
from the recent Hurricane Hilary has it made it difficult to analyze
over in the western U.S. For the smoke, western Canadian wildfires and
northwestern U.S. wildfires were responsible for a very large area of
moderate density smoke which was seen extending into Pacific Ocean
off the coast southwestern Oregon and northwestern California. From
here, the moderate density smoke extended northeast through Canada and
extended off the Pacific coast through most of western, central Canada
and eastern parts of Canada. In addition, moderate remnant density
smoke was seen over most of southern U.S,parts of the eastern U.S, and
the Atlantic ocean off of southeastern Canada. Thick density smoke from
both the wildfires in California and western Canada was seen engulfing
parts of the northwestern U.S, British Columbia, Alberta and a portion
of Saskatchewan. The larger surrounding area of thinner density smoke
was seen over much of Canada and the U.S. with the exception of parts
of western U.S due to cloud cover, northern Mexico, the northern Gulf
of Mexico, and a relatively small part of the far eastern Pacific off
the U.S. west coast and portions of the western and northern Atlantic
over Greenland reaching as far as western Europe.

Honolulu, Hawaii…
The west Oahu brush fire in Keawaula Park could be seen producing a
burst of light to moderate density smoke that was quickly moving west
over the Keawaula bay and Pacific Ocean this evening.

DUST:
Southern Gulf of Mexico/Central America/Yucatan Peninsula/Southern
Florida/Bahamas/Caribbean Region/Atlantic Ocean…

A sprawling area of generally thin density Saharan dust continued to be
partially visible throughout, extending from the Bay of Campeche, the
Yucatan Peninsula, and some of Central America to the east and northeast
over virtually all of the Caribbean region, the southern Gulf of Mexico,
southern Florida, and the Bahamas. A thicker area was seen just off the
coat of western Africa and central Atlantic.

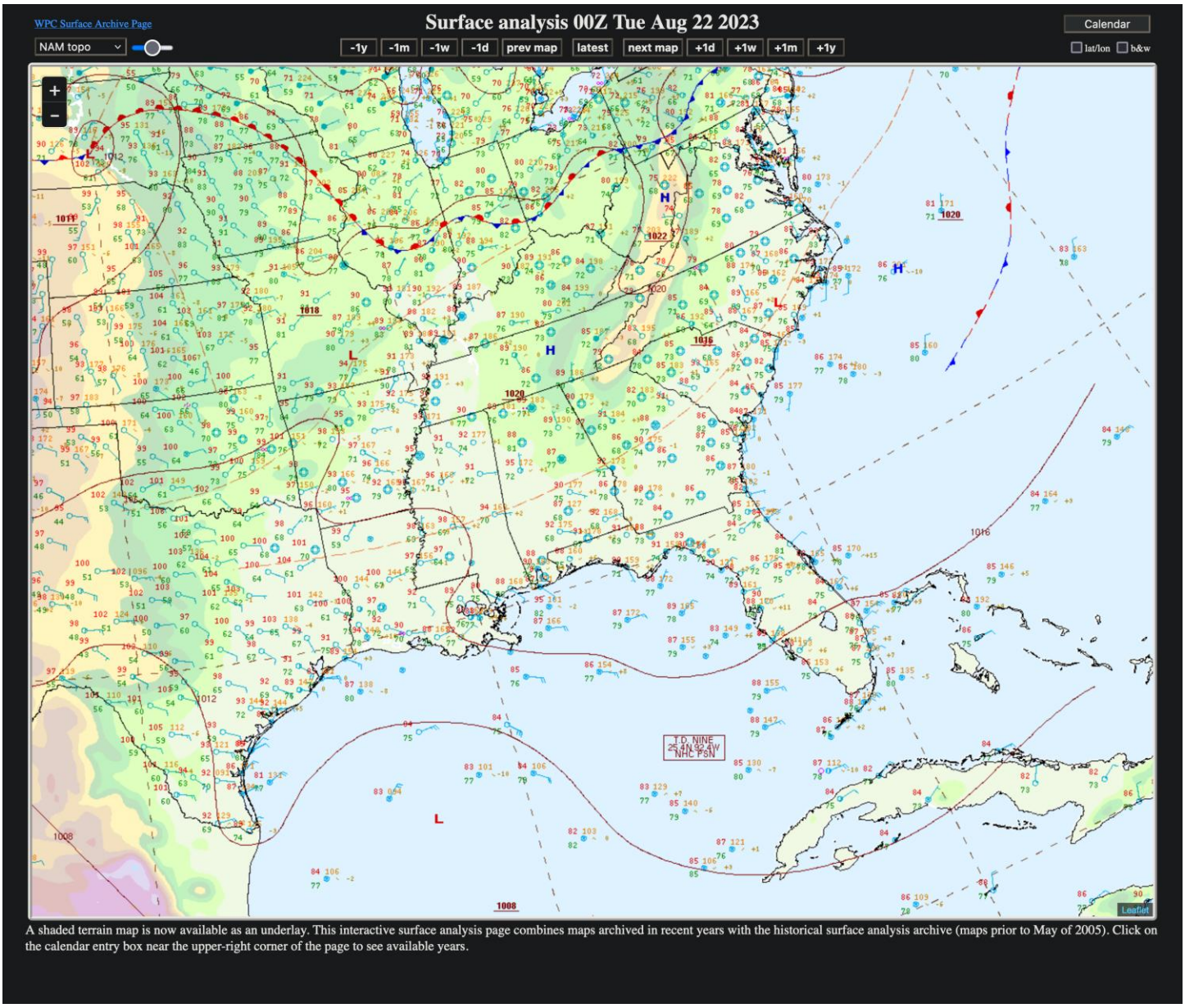
Eglin

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

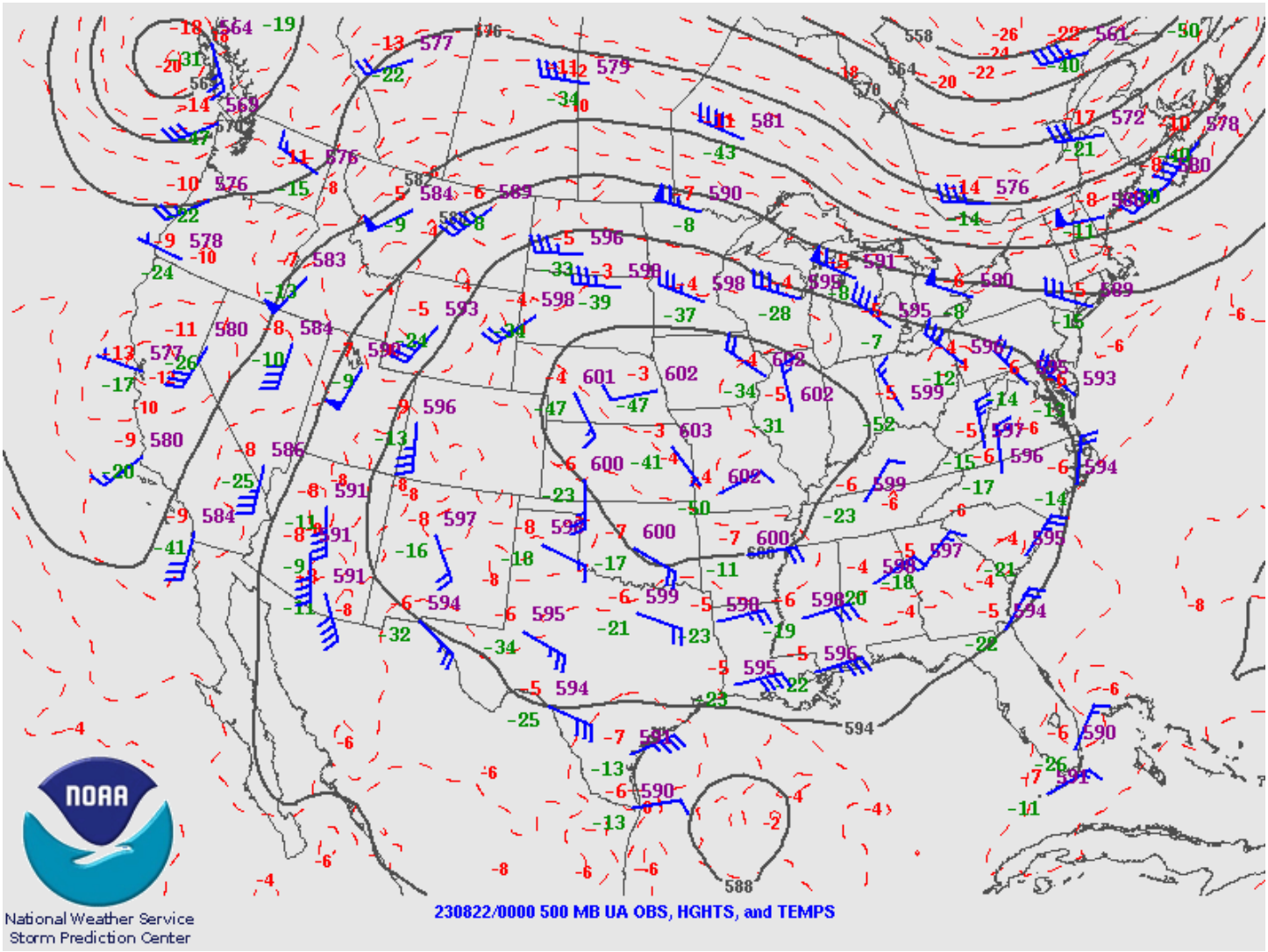
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

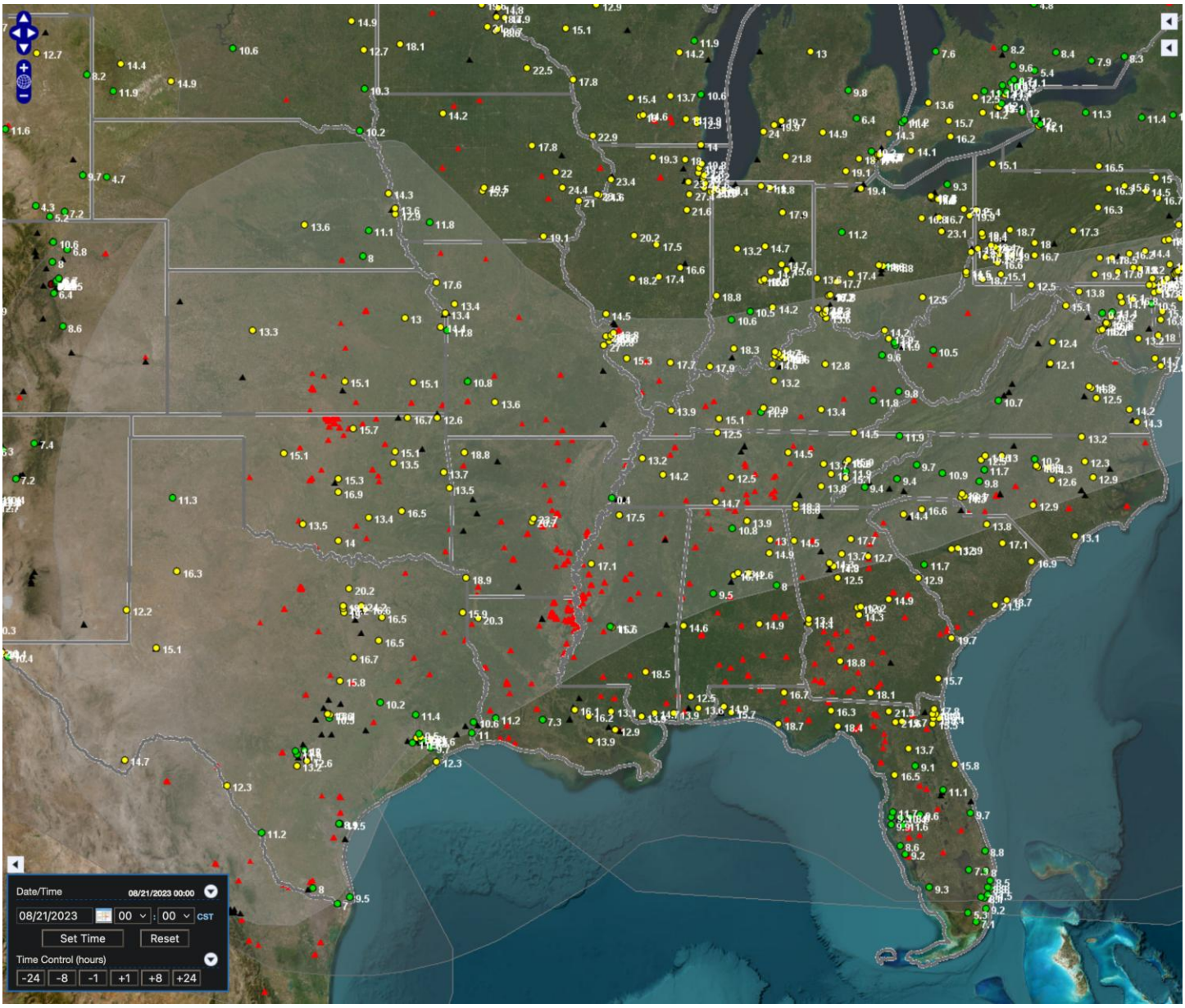
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H220143.html) narrative dated August 22, 2023, at 0140Z (corresponding to August 21, 2023, at 8:43 PM CDT). The narrative describes the smoke situation, highlighting how moderate remnant smoke transported from Canadian wildfires has moved into the southeastern United States and is currently stagnating over the region.



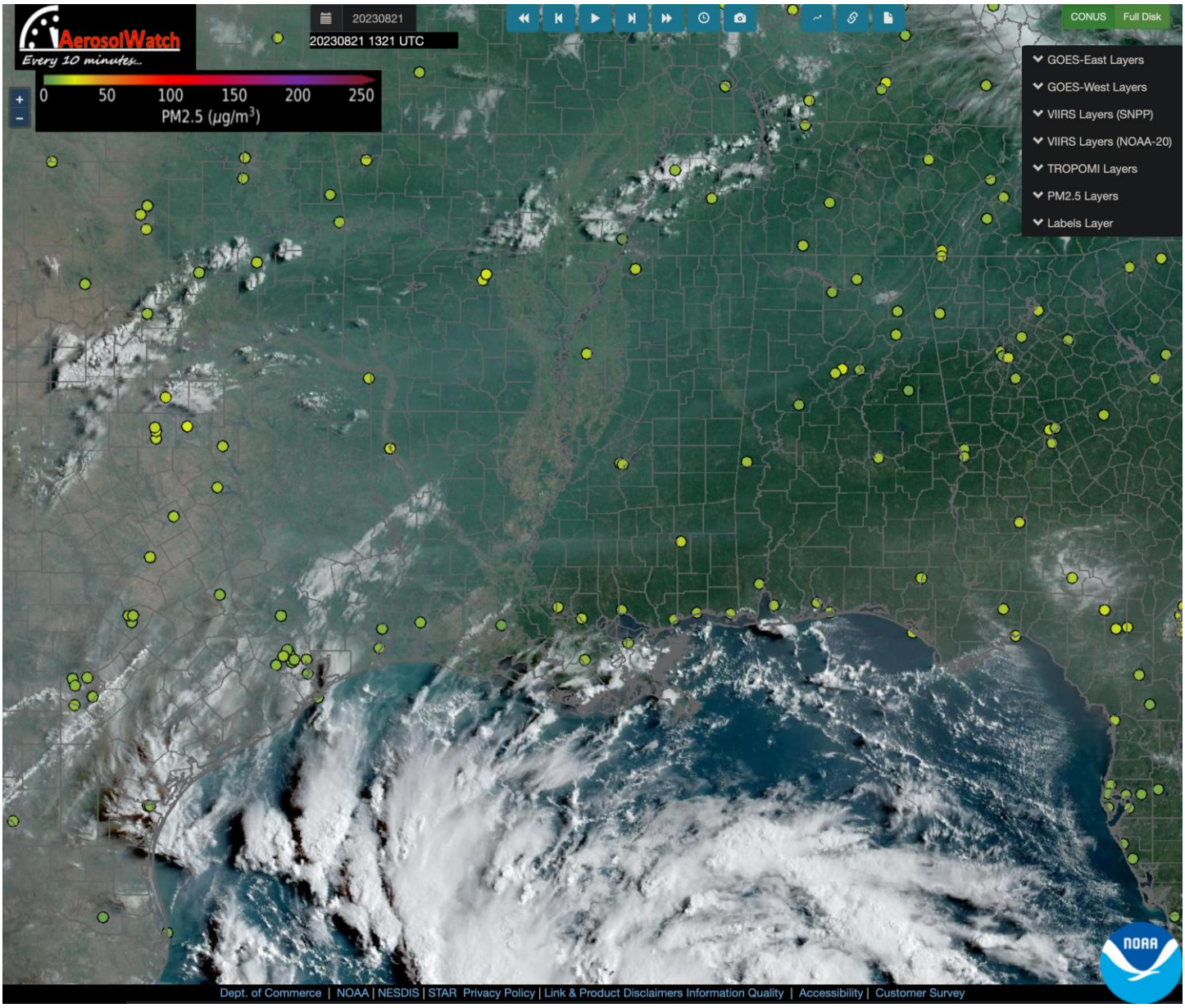
The 00z surface analysis (August 21st, 2023, at 7 PM CDT) shows surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of surface smoke in place from the Canadian wildfires that was transported down in previous days with aid of surface frontal boundary.



The 00Z upper-level analysis at 500 mb (August 21st, 2023, at 7 PM CDT) shows a 600+ dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the surface smoke from the Canadian fires near the surface that was transported in from previous days surface frontal boundary.



The AirNowTech Navigator image from August 21st, 2023, shows a large batch of smoke from Canadian wildfires that was transported down encompassing the Mid-Atlantic states, southeast, and midwestern states.

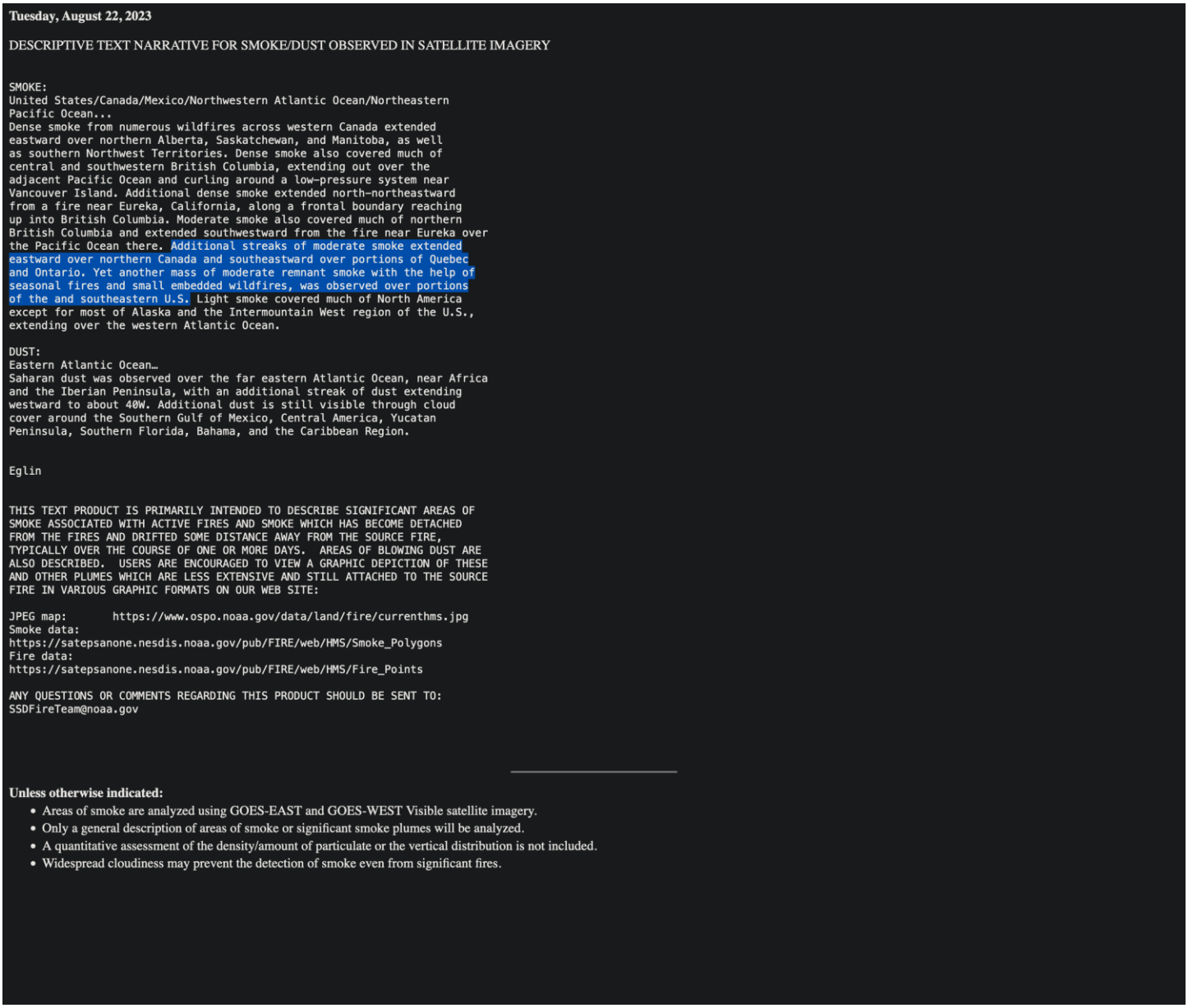


GOES East True Color image taken on August 21st, 2023, at 1321UTC, showing smoke shield from Canadian wildfires encompassing the southeastern and southern United States, elevating PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/21/23	23.5	21.8	22.6	23.4	22.1	19.9	20.3	17.8	11.7	10.8	10.9	12.6	15.1	15.4	15.4	16.3	17.1	19.2	20.9	23	21.8	20.9	20.7	22.2	18.56	23.5

The hourly values at the Hattiesburg monitor on August 21st, shown in the image above, indicate elevated PM2.5 levels in the morning due to a strong nocturnal inversion, which trapped pollutants near the surface with PM2.5 values reaching into the twenties. Diurnal heating allowed for mixing during the day, helping to disperse pollutants. However, even with limited mixing, PM2.5 levels remained elevated in the teens for the majority of peak heating during the day due to strong ridging aloft and high pressure at the surface. As a nocturnal inversion developed again during the evening of the 21st, PM2.5 values began to increase once more, continuing overnight, into the 22nd.

Augst 22nd: Pattern from previous days is locked in place as both High pressure at the surface coupled with expansive upper-level ridge that is centered over the Midwest, continue to provide stagnant/stable conditions, allowing remnant smoke from Canadian fires to hang around the Mid-South and southeastern, United States, keeping PM2.5 values elevated. Also contributing to elevated PM2.5 levels are local wildfires around the region adding to the smoke that is already in the area.



Tuesday, August 22, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY

SMOKE:
United States/Canada/Mexico/Northwestern Atlantic Ocean/Northeastern Pacific Ocean...
Dense smoke from numerous wildfires across western Canada extended eastward over northern Alberta, Saskatchewan, and Manitoba, as well as southern Northwest Territories. Dense smoke also covered much of central and southwestern British Columbia, extending out over the adjacent Pacific Ocean and curling around a low-pressure system near Vancouver Island. Additional dense smoke extended north-northeastward from a fire near Eureka, California, along a frontal boundary reaching up into British Columbia. Moderate smoke also covered much of northern British Columbia and extended southwestward from the fire near Eureka over the Pacific Ocean there. Additional streaks of moderate smoke extended eastward over northern Canada and southeastward over portions of Quebec and Ontario. Yet another mass of moderate remnant smoke with the help of seasonal fires and small embedded wildfires, was observed over portions of the and southeastern U.S. Light smoke covered much of North America except for most of Alaska and the Intermountain West region of the U.S., extending over the western Atlantic Ocean.

DUST:
Eastern Atlantic Ocean…
Saharan dust was observed over the far eastern Atlantic Ocean, near Africa and the Iberian Peninsula, with an additional streak of dust extending westward to about 40W. Additional dust is still visible through cloud cover around the Southern Gulf of Mexico, Central America, Yucatan Peninsula, Southern Florida, Bahama, and the Caribbean Region.

Eglin

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

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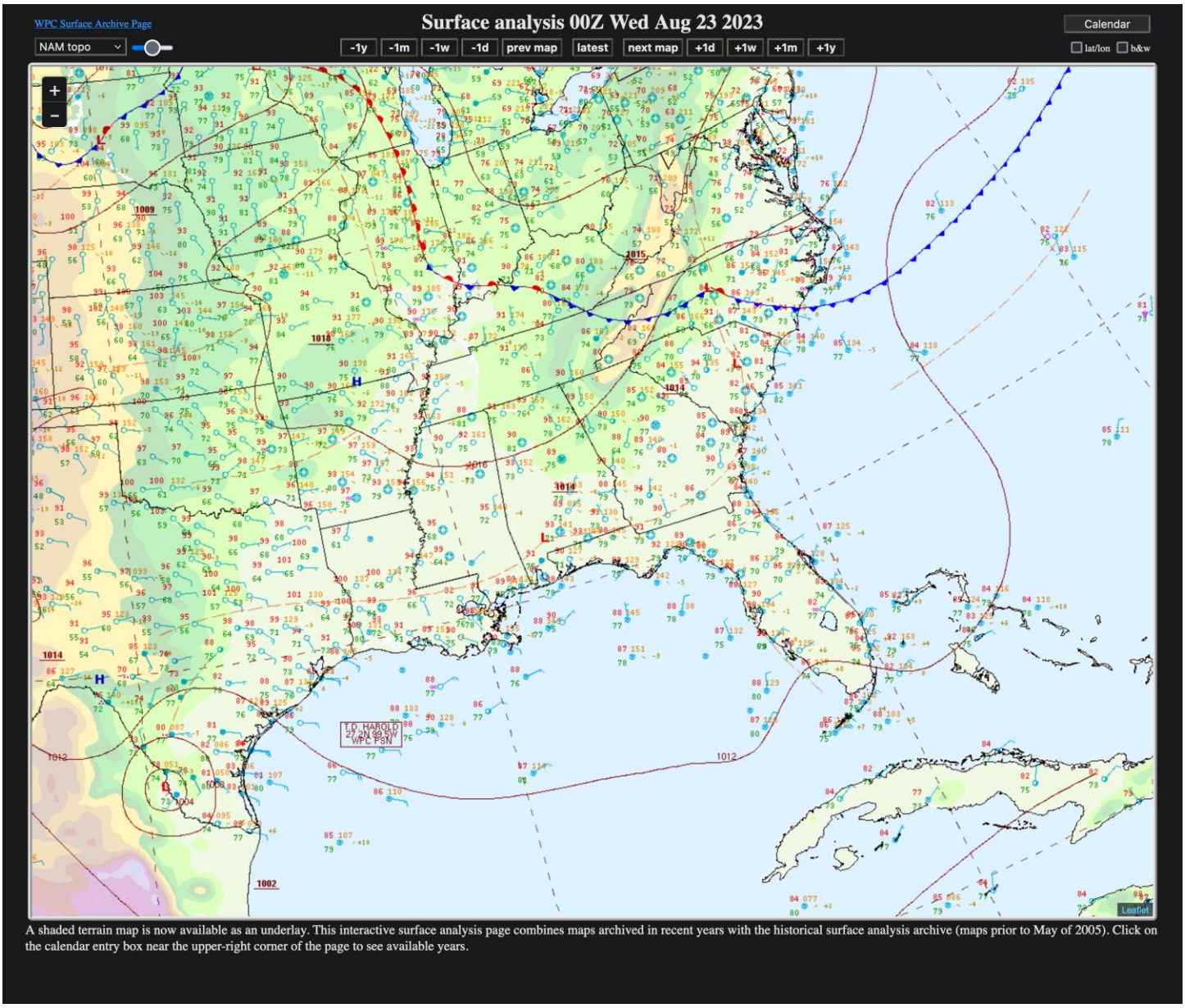
SSDFireTeam@noaa.gov

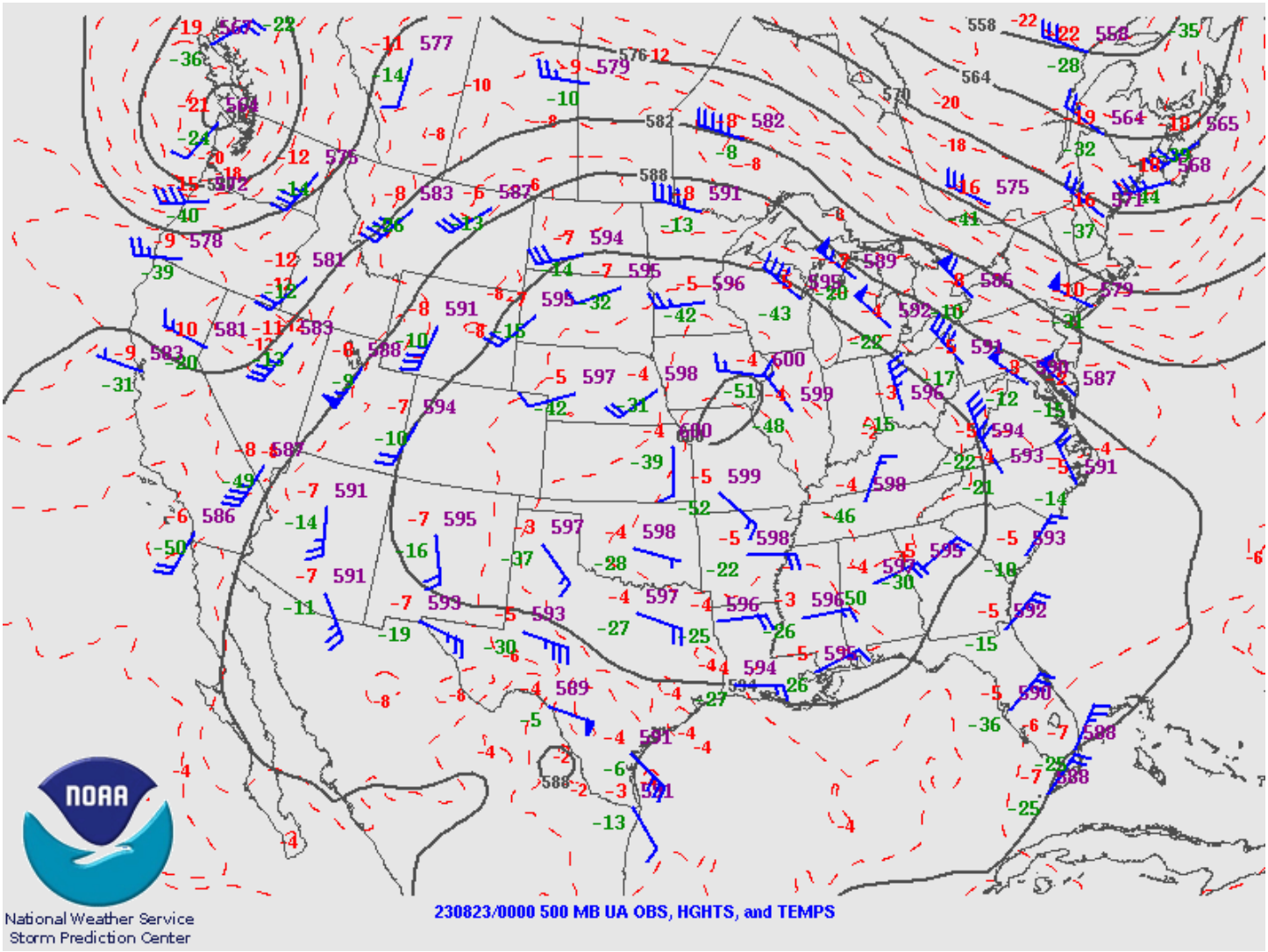
Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

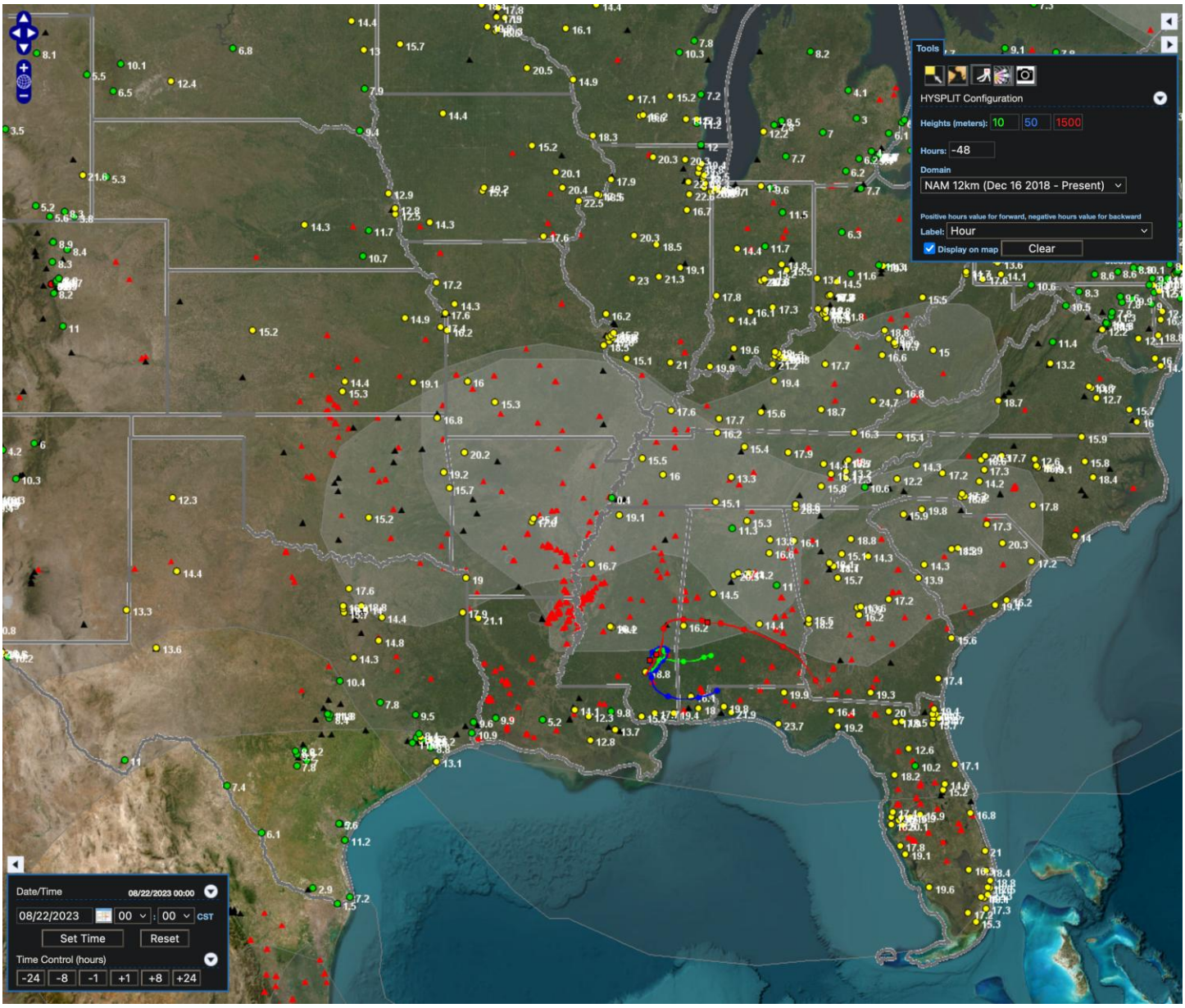
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H230202.html) narrative dated August 23rd, 2023, at 0202Z (corresponding to August 22nd, 2023, at 9:02 PM CDT). The narrative describes the smoke situation, highlighting how moderate remnant smoke transported from Canadian wildfires has moved into the southeastern United States and is currently stagnating over the region, accompanied from smoke by small, embedded wildfires observed in portions of the southeastern U.S, elevating PM2.5 values.



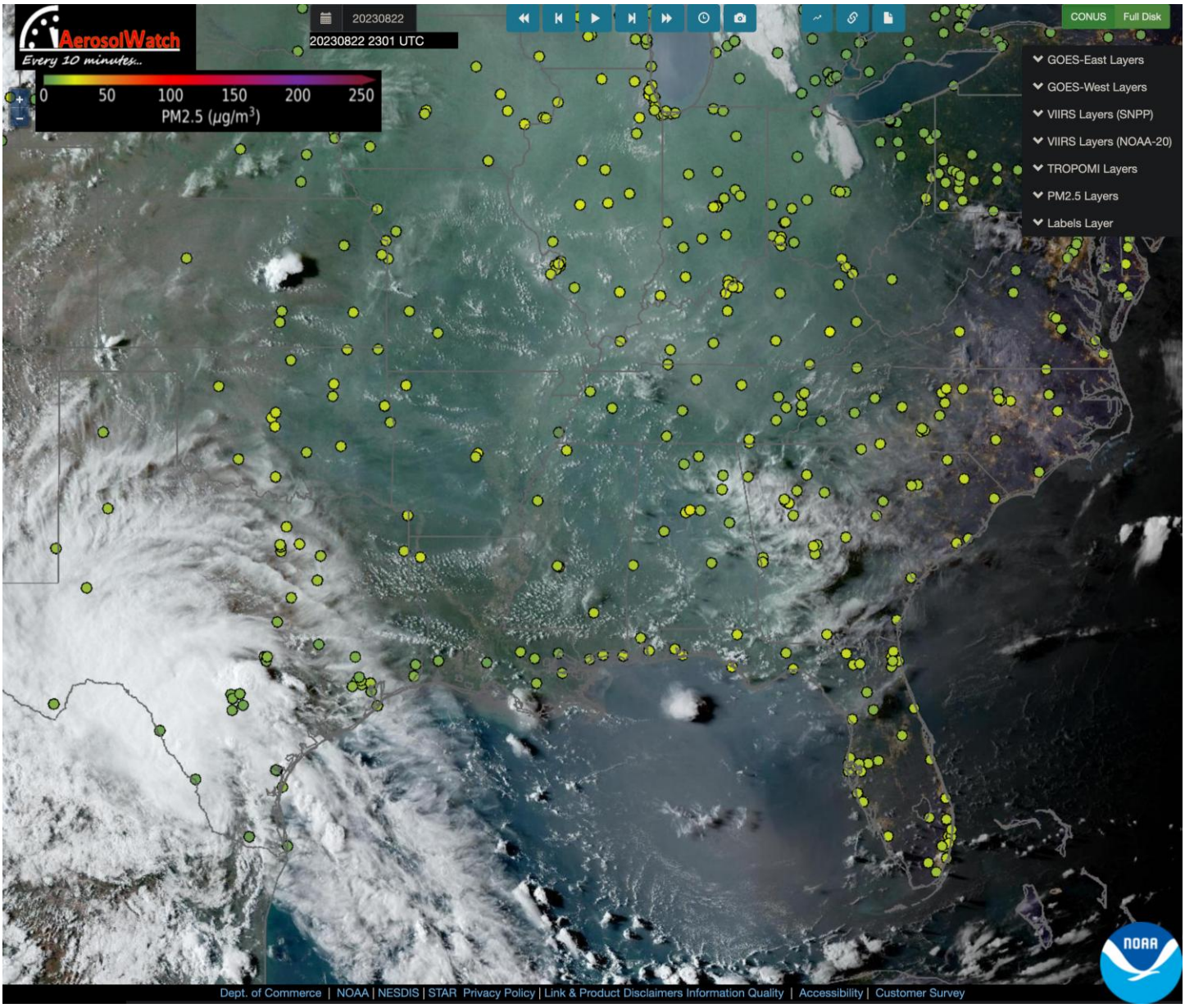
The 00z surface analysis (August 22nd, 2023, at 7 PM CDT) shows surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of surface smoke in place from the Canadian wildfires that was transported down in previous days with aid of surface frontal boundary coupled with smoke from small, embedded wildfires, that was occurring over the southeastern United States.



The 00Z upper-level analysis at 500 mb (August 22nd, 2023, at 7 PM CDT) shows a 600 dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the surface smoke from the Canadian fires near the surface that was transported in from previous days surface frontal boundary coupled with smoke from small, embedded wildfires, that was occurring over the southeastern United States.



The AirNowTech Navigator image from August 22nd, 2023, shows a large batch of smoke from Canadian wildfires transported into the region, combined with smoke from small, embedded wildfires occurring over the Mid-South and southeastern United States, which elevated PM2.5 values. Overlaid on the image is a 48-hour back trajectory analysis, showing minimal movement of the lowest 10m and 50m parcels, indicating a very stagnant air mass in place.

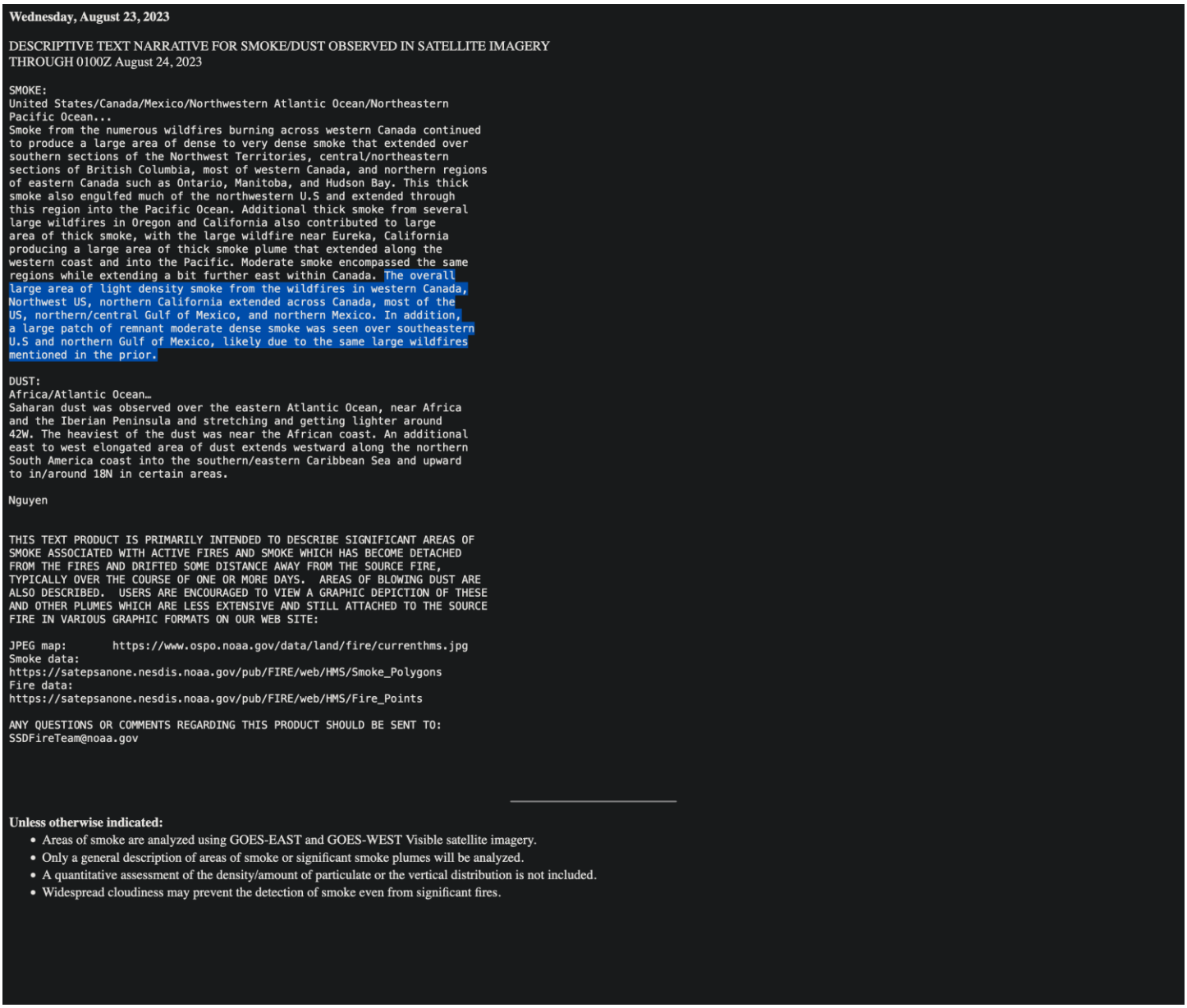


GOES East True Color image taken on August 22nd, 2023, at 2301UTC, showing smoke shield from Canadian wildfires encompassing the Mid-South and southeastern United States, elevating PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/22/23	20.1	20	21.1	20.1	19.6	19.7	20.1	20.7	17.9	18.5	20.6	20.4	19.6	19.5	18.3	17.5	18.8	18.8	17.3	16.5	16.6	18	16.8	15.5	18.83	21.1

The hourly PM2.5 values at the Hattiesburg monitor on August 22nd, as shown in the image above, indicate elevated levels in the teens and twenties throughout the day, largely due to remnant smoke from Canadian wildfires trapped beneath a broad area of surface high pressure and upper-level ridging, along with smoke from small, embedded wildfires over the southeastern United States. This strong ridging and surface high pressure limited ventilation and prevented the dispersion of smoke in the area.

August 23rd: Pattern from previous days is continues to be locked in place as both High pressure at the surface coupled with expansive upper-level ridge that is centered over the Midwest, continue to provide stagnant/stable conditions, allowing remnant smoke from Canadian fires to hang around the southeastern, United States, coupled with additive smoke from wildfires in and around the area, keeping PM2.5 values elevated well into the moderate category for a daily average.



Wednesday, August 23, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0100Z August 24, 2023

SMOKE:
United States/Canada/Mexico/Northwestern Atlantic Ocean/Northeastern Pacific Ocean...
Smoke from the numerous wildfires burning across western Canada continued to produce a large area of dense to very dense smoke that extended over southern sections of the Northwest Territories, central/northeastern sections of British Columbia, most of western Canada, and northern regions of eastern Canada such as Ontario, Manitoba, and Hudson Bay. This thick smoke also engulfed much of the northwestern U.S and extended through this region into the Pacific Ocean. Additional thick smoke from several large wildfires in Oregon and California also contributed to large area of thick smoke, with the large wildfire near Eureka, California producing a large area of thick smoke plume that extended along the western coast and into the Pacific. Moderate smoke encompassed the same regions while extending a bit further east within Canada. The overall large area of light density smoke from the wildfires in western Canada, Northwest US, northern California extended across Canada, most of the US, northern/central Gulf of Mexico, and northern Mexico. In addition, a large patch of remnant moderate dense smoke was seen over southeastern U.S and northern Gulf of Mexico, likely due to the same large wildfires mentioned in the prior.

DUST:
Africa/Atlantic Ocean…
Saharan dust was observed over the eastern Atlantic Ocean, near Africa and the Iberian Peninsula and stretching and getting lighter around 42W. The heaviest of the dust was near the African coast. An additional east to west elongated area of dust extends westward along the northern South America coast into the southern/eastern Caribbean Sea and upward to in/around 18N in certain areas.

Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

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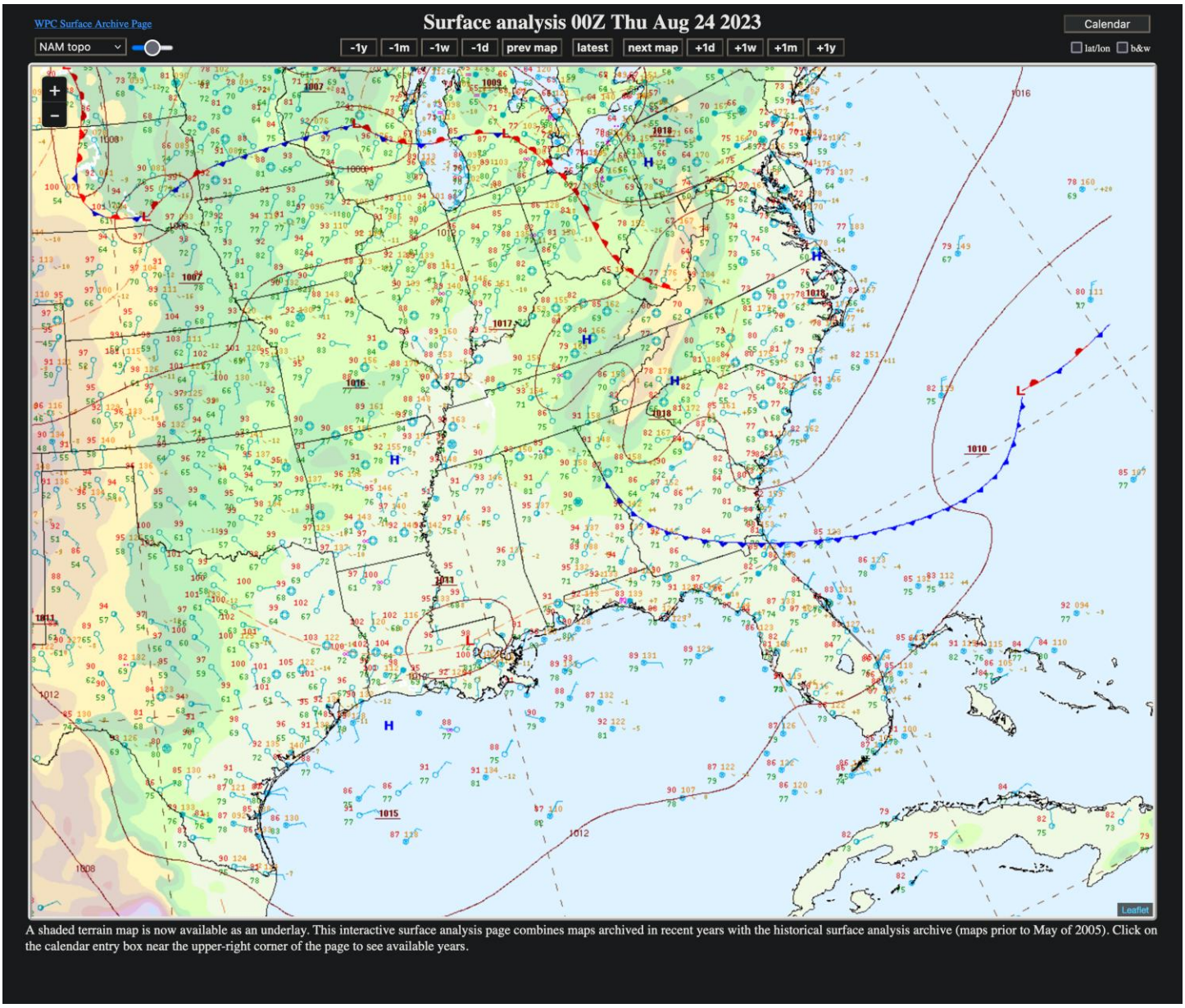
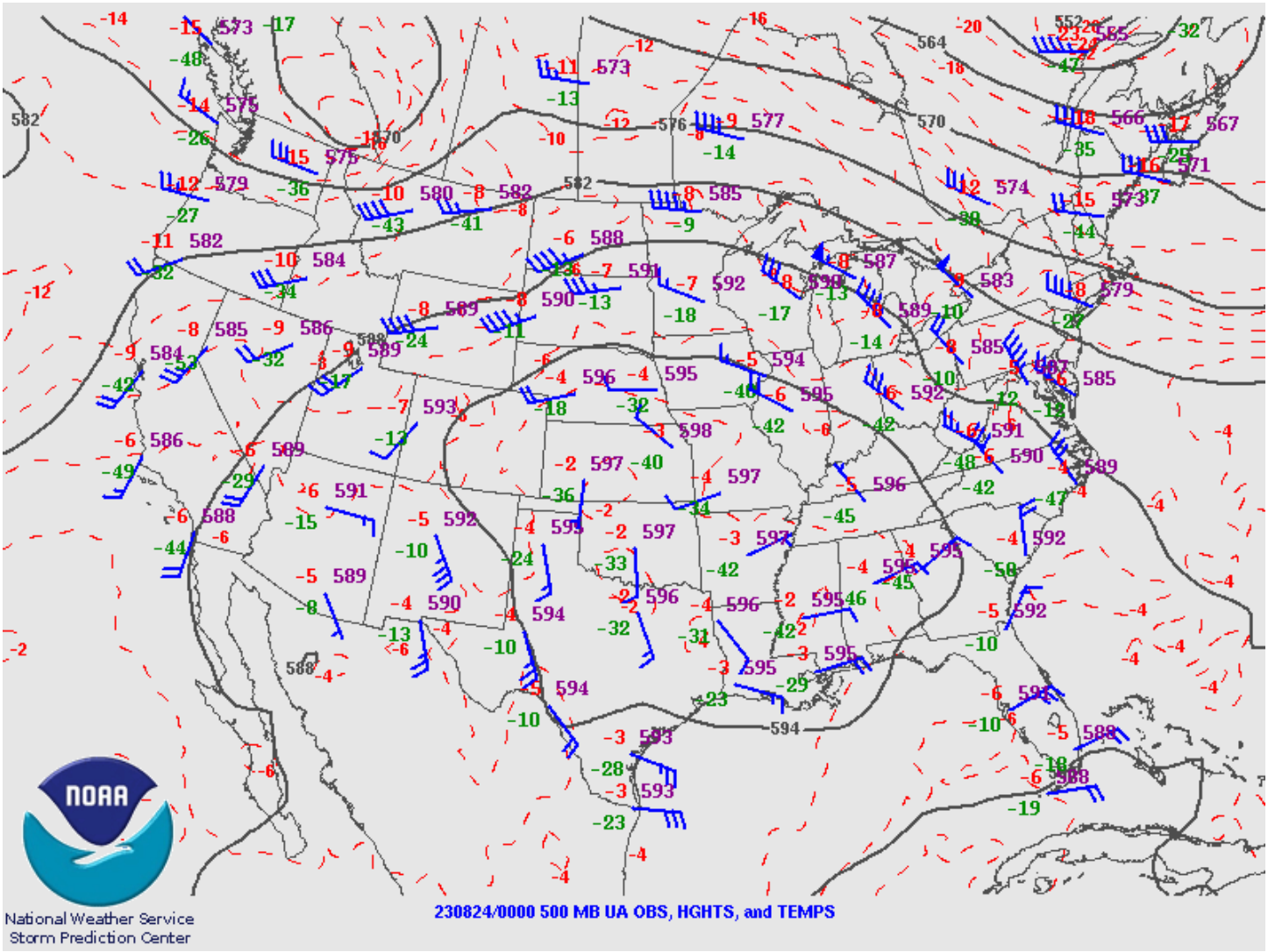
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

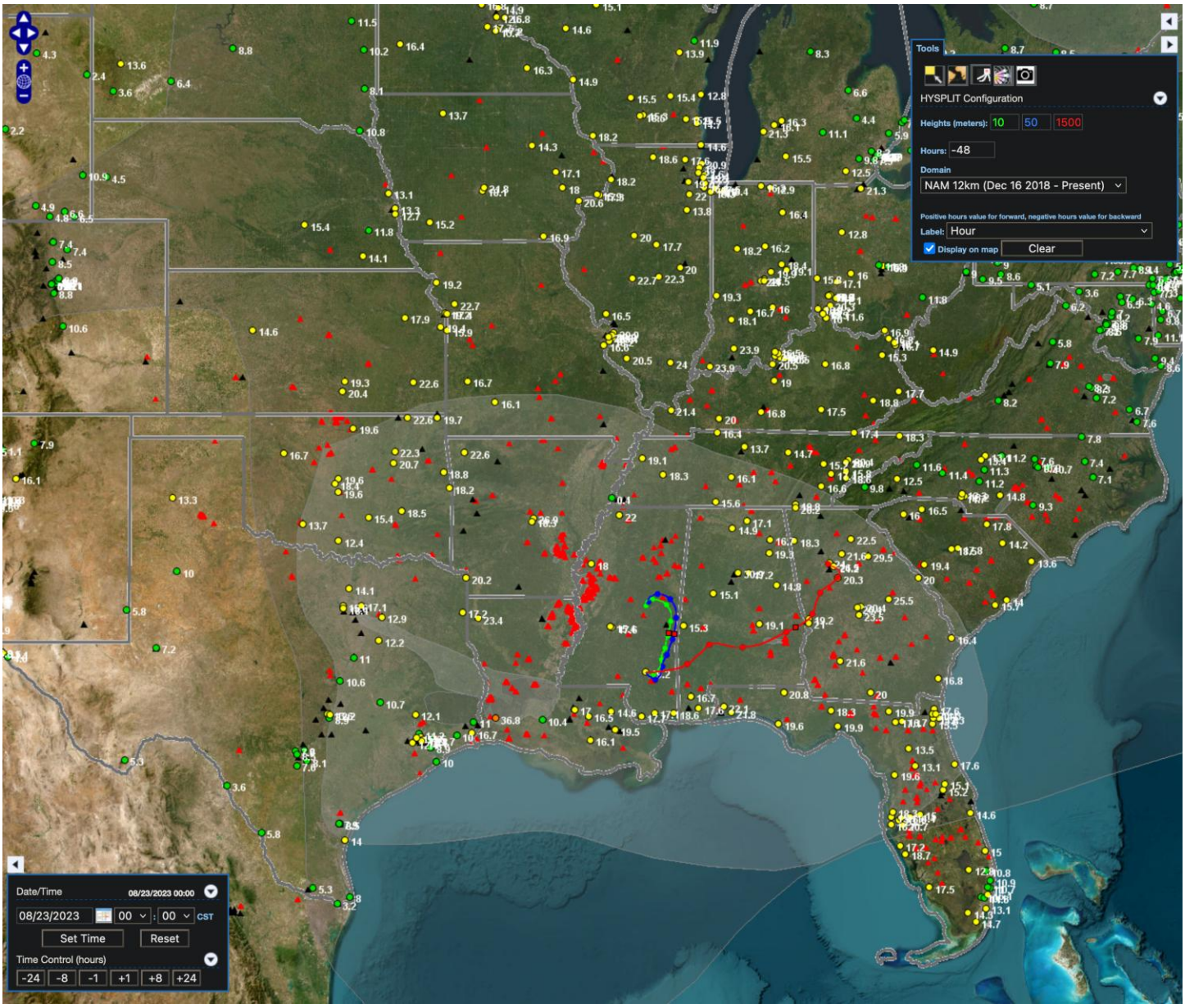
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H240059.html) narrative dated August 24th, 2023, at 0100Z (corresponding to August 23rd, 2023, at 8:00 PM CDT). The narrative describes moderate remnant smoke from Canadian wildfires stagnating over the southeastern U.S resulting in elevated PM2.5 values. This large patch of smoke, also extending over the northern Gulf of Mexico, likely originated from the extensive wildfires across western Canada, contributing to widespread smoke across North America.



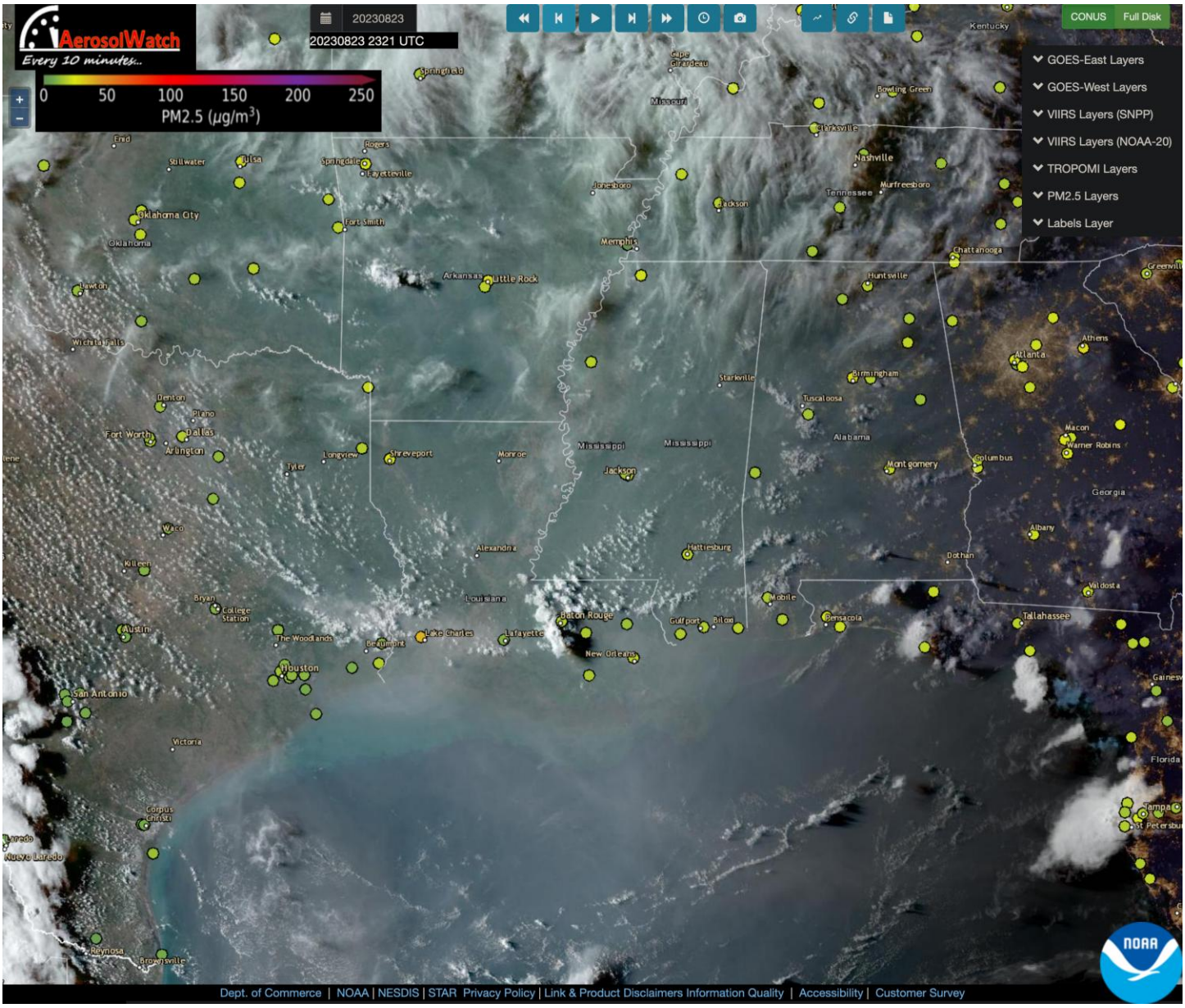
The 00z surface analysis (August 23rd, 2023, at 7 PM CDT) shows surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of surface smoke in place from the Canadian wildfires that was transported down in previous days with aid of surface frontal boundary coupled with smoke from small, embedded wildfires, that was occurring over the southeastern United States.



The 00Z upper-level analysis at 500 mb (August 23rd, 2023, at 7 PM CDT) shows a 594+ dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the surface smoke from the Canadian fires near the surface that was transported in from previous days surface frontal boundary coupled with smoke from small, embedded wildfires, that was occurring over the southeastern United States.



The AirNowTech Navigator image from August 23rd, 2023, shows a large batch of smoke from Canadian wildfires transported into the region, combined with smoke from small, embedded wildfires occurring over the Mid-South and southeastern United States, which elevated PM2.5 values. Overlaid on the image is a 48-hour back trajectory analysis, showing minimal movement of the lowest 10m and 50m parcels, indicating a very stagnant air mass in place.



GOES East True Color image taken on August 23rd, 2023, at 2321UTC, showing smoke shield from Canadian wildfires encompassing the Mid-South and southeastern United States, elevating PM2.5 values.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/23/23	14.8	14.9	15.1	15.8	16.7	17.7	19.1	19.9	19.4	18.9	19.4	19.6	20.2	20.1	19.5	20	20.6	20.7	20.5	20.4	20.7	21.7	22.6	23	19.22	23

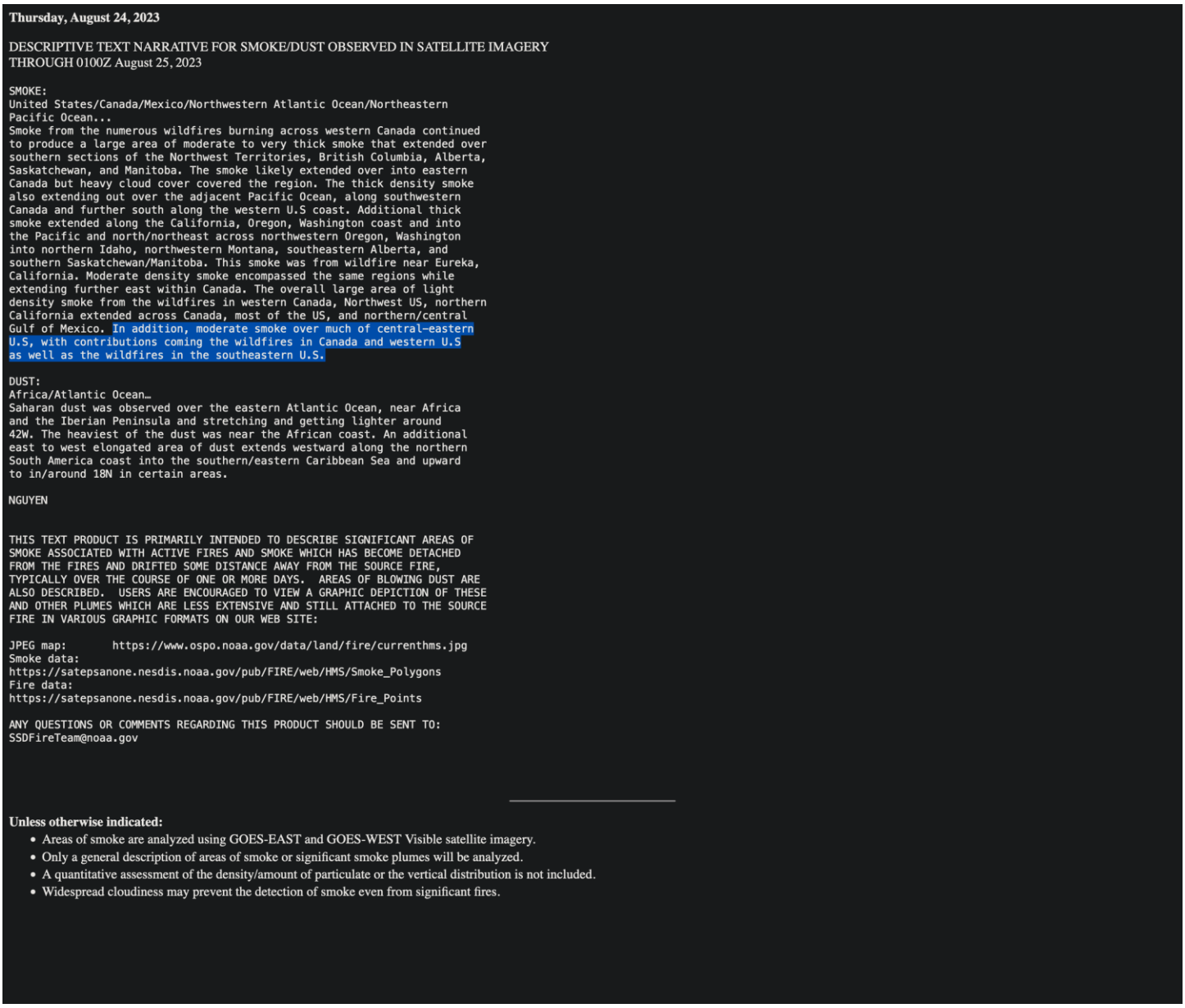
The hourly PM2.5 values at the Hattiesburg monitor on August 23rd, as shown in the image above, indicate elevated levels in the teens and twenties throughout the day, largely due to remnant smoke from Canadian wildfires trapped beneath a broad area of surface high pressure and upper-level ridging, along with smoke from small, embedded wildfires over the southeastern United States. This strong ridging and surface high pressure limited ventilation and prevented the dispersion of smoke in the area.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
Aug 24 – Aug 27, 2023	Wildfire	RT	28-035-0004	Hattiesburg	21.8, 18.1, 22.8, 23.2	2, 3	Wildfire C Exceptional Event Demonstration: August 24 - 27, 2023

Synopsis: Leading up to the exceptional event for August 24–27, the meteorological setup featured a persistent surface high-pressure system over the southeastern United States, combined with an expansive upper-level ridge, at times exceeding 600 dm, centered over the Midwest. Note, the period between August 17th and August 27th, surface High pressure and upper-level ridging was so strong, many ASOS stations across the southeastern United States saw a string of days where daytime highs exceeded 100F. This created very stagnant and stable conditions across the southeastern United States Under this ridge and surface high, smoke from Canadian wildfires was transported to the southeast by surface frontal boundaries and upper level troughing. After the front's passage, abundant smoke from Canadian wildfires remained in place, and strong surface high pressure along with upper-level ridging developed, locking the Canadian smoke over the southeast from August 18–23.

Although the Hattiesburg monitor recorded smoke from August 18–27, local wildfires in the southeast began to contribute additional smoke around August 22–24. As the days progressed, there was a transition, with local wildfire smoke gradually replacing the Canadian smoke at the surface. This transition culminated around August 24, leading to the separation of the smoke impact period into two exceptional events: August 18–23 for the Canadian wildfire smoke, and August 24–27 for local wildfire smoke.

Further evidence of local wildfire smoke becoming the dominant influence on air quality can be seen in the steadily increasing PM2.5 values, which correlate with the growing number of wildfires across the southeast. The Hattiesburg monitor recorded daily PM2.5 averages of 17.9 µg/m^3 on August 22nd, 18.3 µg/m^3 on August 23rd, and 21.8 µg/m^3 on August 24th. This upward trend in PM2.5 values, coupled with the increasing wildfire activity in the southeastern United States, indicates a stronger influence from local wildfires compared to the previously dominant Canadian wildfire smoke.



Thursday, August 24, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0100Z August 25, 2023

SMOKE:
United States/Canada/Mexico/Northwestern Atlantic Ocean/Northeastern
Pacific Ocean...
Smoke from the numerous wildfires burning across western Canada continued
to produce a large area of moderate to very thick smoke that extended over
southern sections of the Northwest Territories, British Columbia, Alberta,
Saskatchewan, and Manitoba. The smoke likely extended over into eastern
Canada but heavy cloud cover covered the region. The thick density smoke
also extending out over the adjacent Pacific Ocean, along southwestern
Canada and further south along the western U.S coast. Additional thick
smoke extended along the California, Oregon, Washington coast and into
the Pacific and north/northeast across northwestern Oregon, Washington
into northern Idaho, northwestern Montana, southeastern Alberta, and
southern Saskatchewan/Manitoba. This smoke was from wildfire near Eureka,
California. Moderate density smoke encompassed the same regions while
extending further east within Canada. The overall large area of light
density smoke from the wildfires in western Canada, Northwest US, northern
California extended across Canada, most of the US, and northern/central
Gulf of Mexico. In addition, moderate smoke over much of central-eastern
U.S, with contributions coming the wildfires in Canada and western U.S
as well as the wildfires in the southeastern U.S.

DUST:
Africa/Atlantic Ocean…
Saharan dust was observed over the eastern Atlantic Ocean, near Africa
and the Iberian Peninsula and stretching and getting lighter around
42W. The heaviest of the dust was near the African coast. An additional
east to west elongated area of dust extends westward along the northern
South America coast into the southern/eastern Caribbean Sea and upward
to in/around 18N in certain areas.

NGUYEN

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

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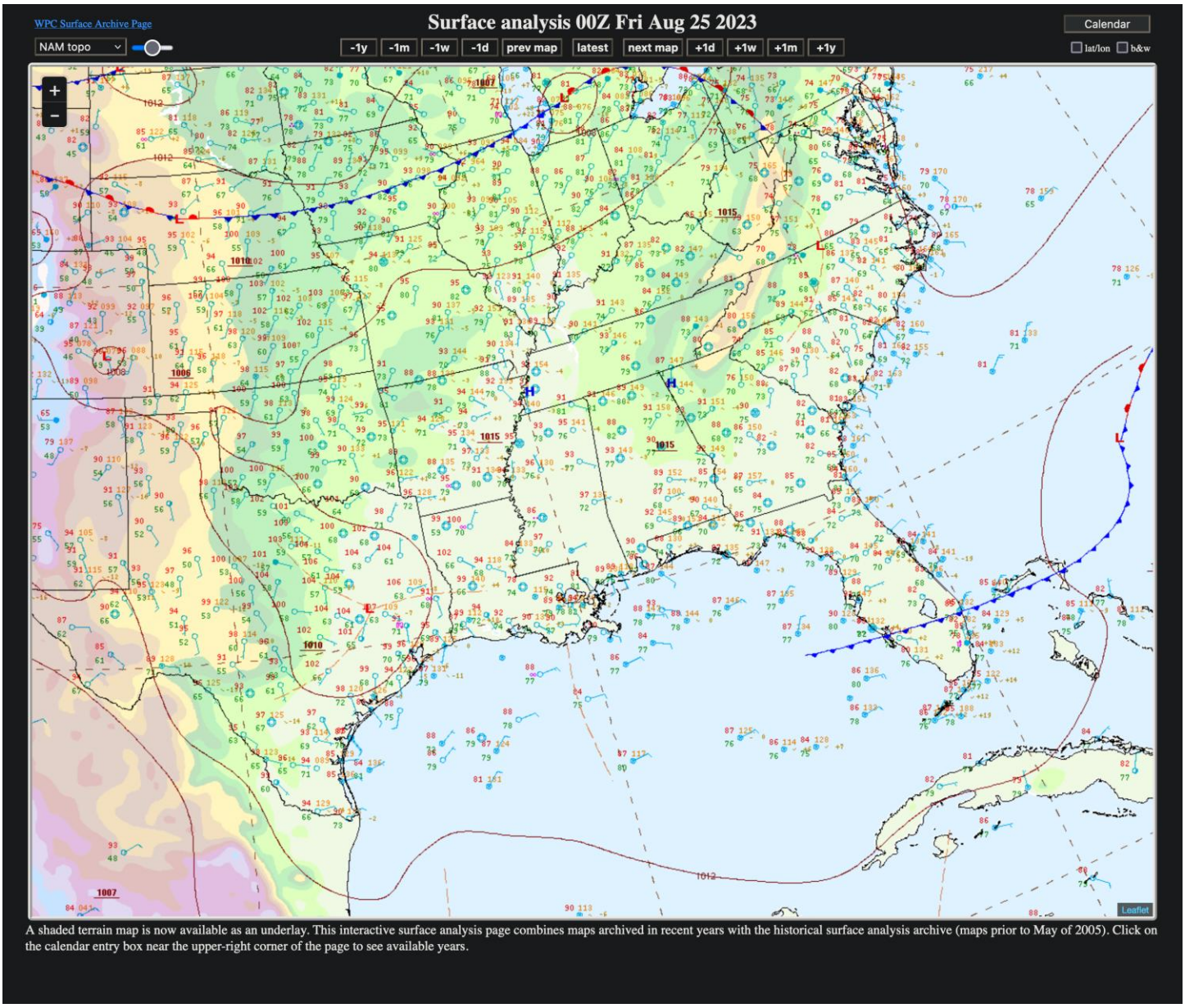
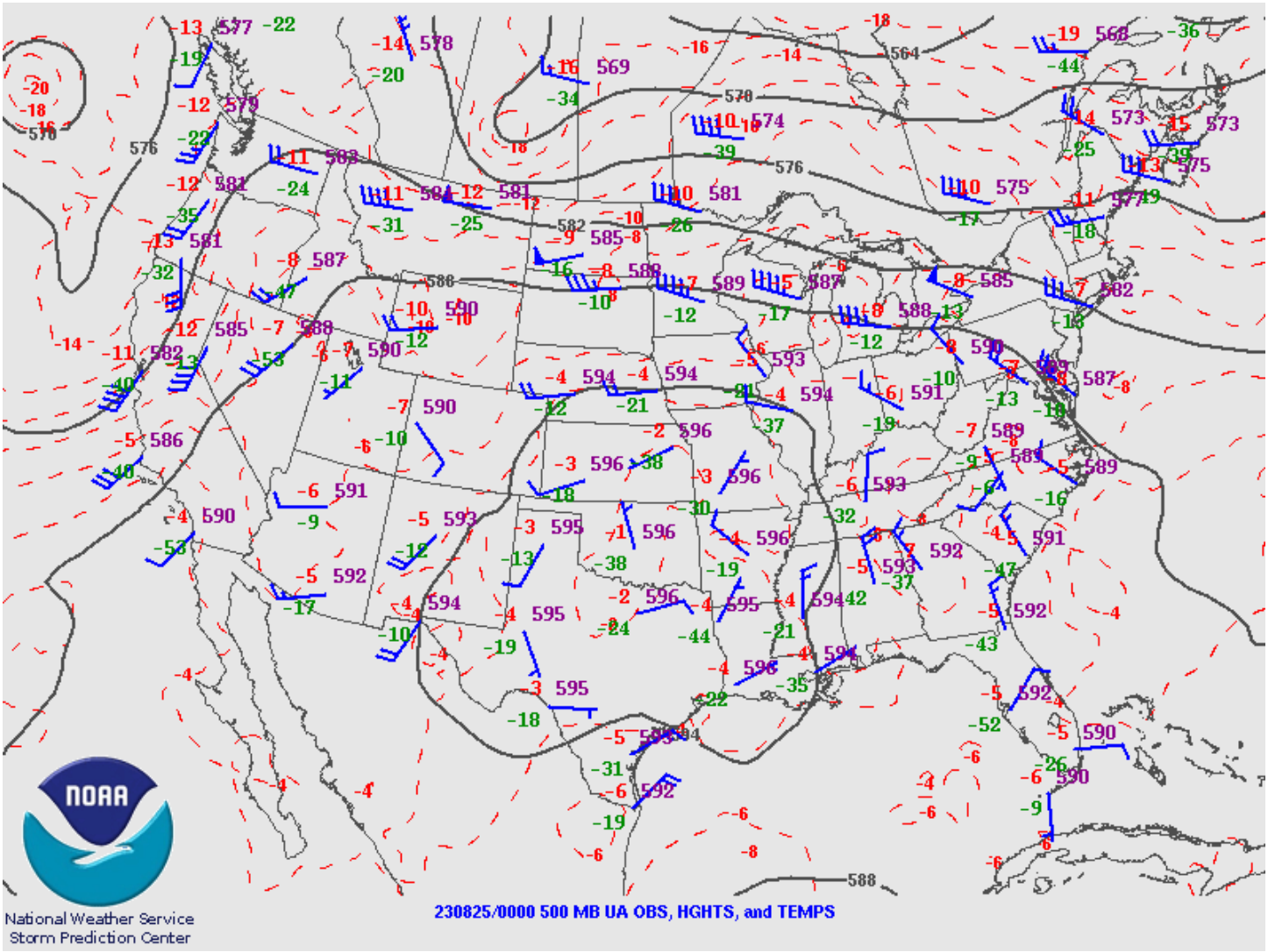
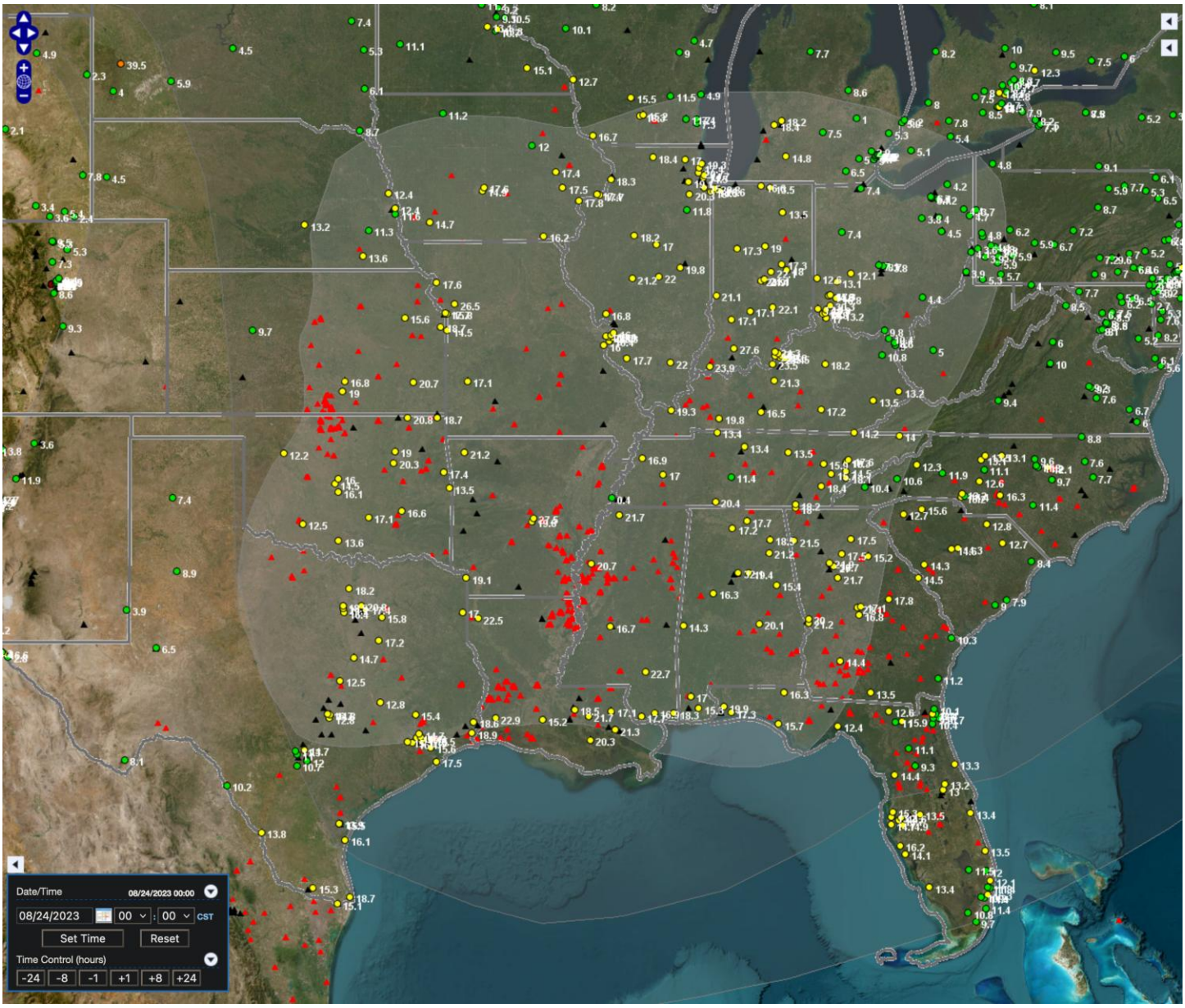
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023H250126.html) narrative dated August 25th, 2023, at 0100Z (corresponding to August 24th, 2023, at 8:00 PM CDT). The narrative describes how there is still residual Canadian smoke across much of the southeast and Gulf of Mexico yet wildfires in the southeastern United States is contributing to additional smoke in the area, keeping PM2.5 values elevated.



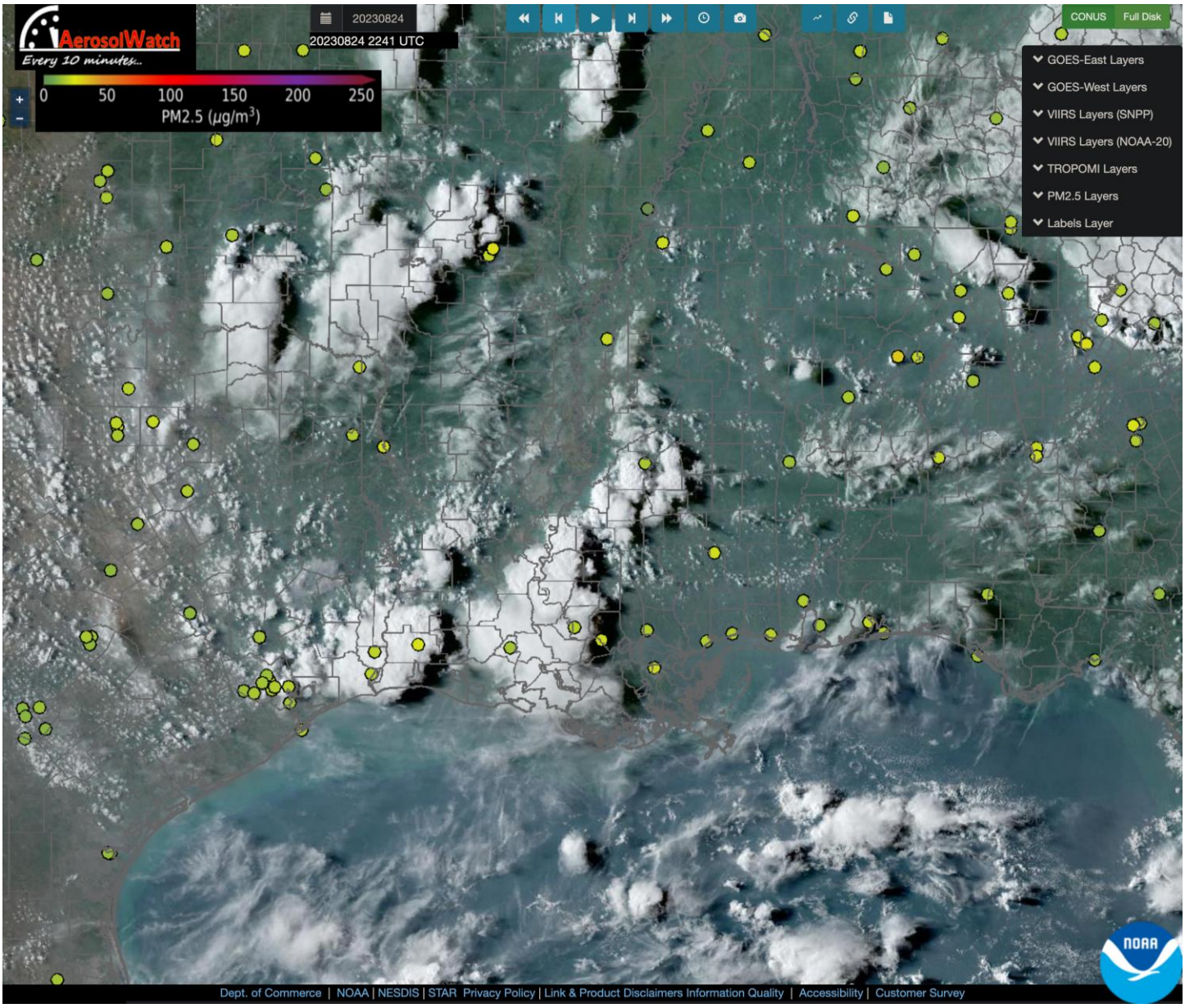
The 00z surface analysis (August 24th, 2023, at 7 PM CDT) shows surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of residual surface smoke in place from the Canadian wildfires coupled with newly acquired smoke from wildfires, that was occurring over the southeastern United States.



The 00Z upper-level analysis at 500 mb (August 24th, 2023, at 7 PM CDT) shows a 594+ dm upper-level ridging in place across the Midwest, extending into the southeastern United States, creating healthy subsidence, trapping the residual surface smoke from the Canadian fires coupled with smoke from wildfires, that was occurring over the southeastern United States.



The AirNowTech Navigator image from August 24th, 2023, shows a large batch of residual smoke from Canadian wildfires transported into the region, combined with smoke from wildfires occurring over the Mid-South and southeastern United States, elevating PM2.5 values.

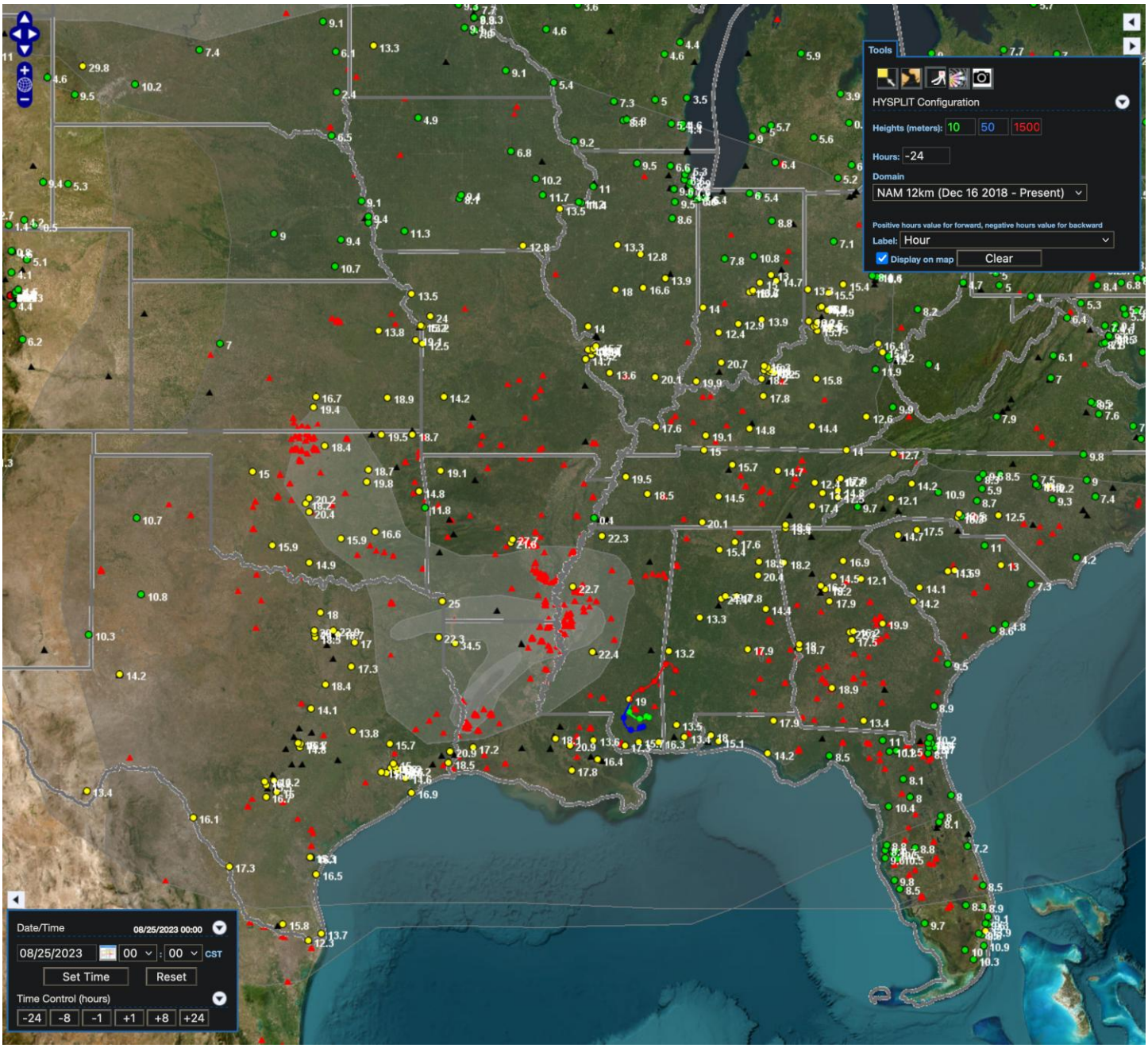


GOES East True Color image taken on August 24th, 2023, at 2241UTC, showing smoke shield encompassing southeastern United States, from both residual smoke from Canadian wildfires, coupled with smoke from local wildfires, elevating PM2.5 values.

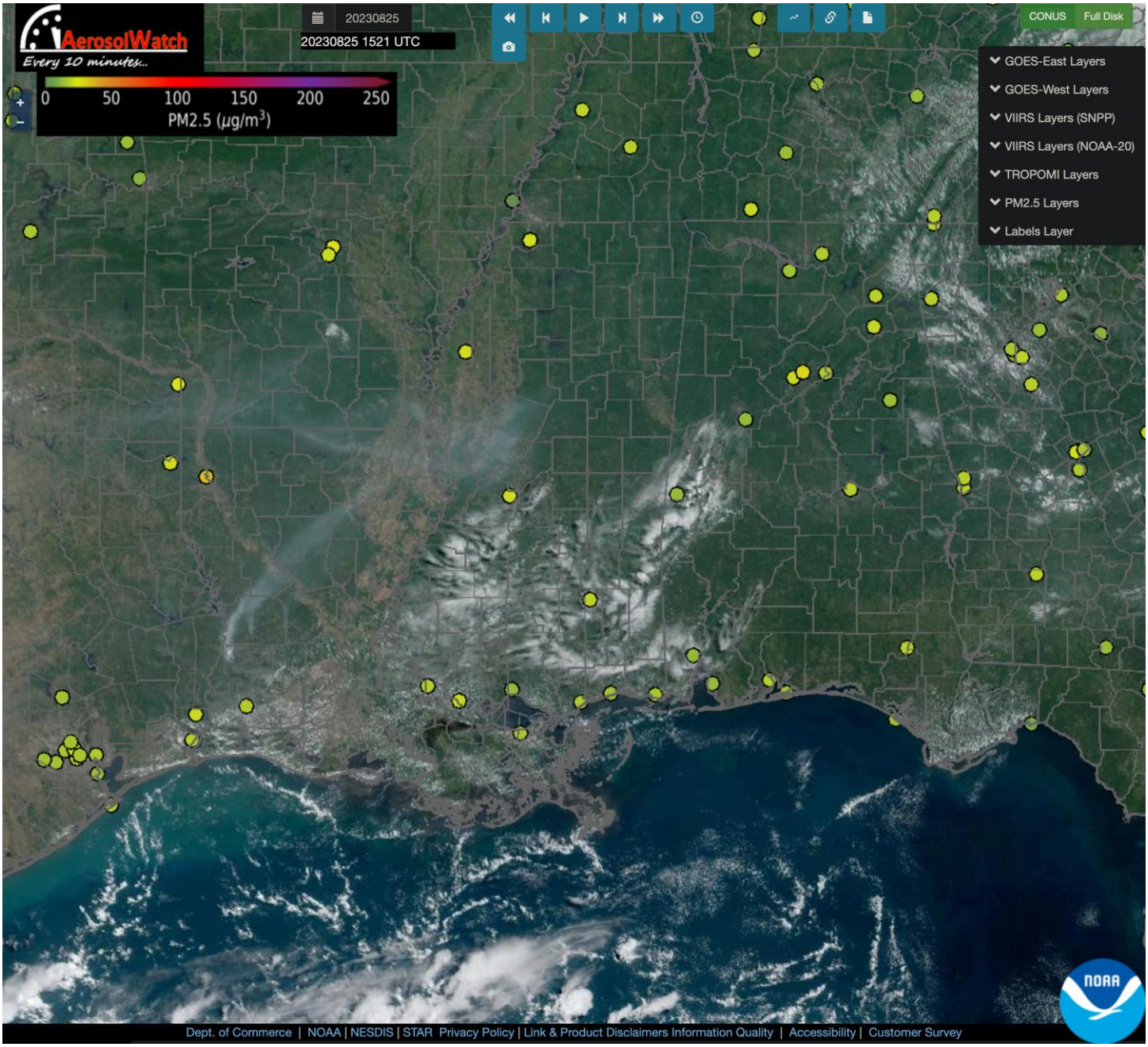
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/24/23	27.4	24.6	24	24.8	25.7	27.8	30	28.3	23.9	22.2	21.4	21.6	21.1	19.6	19.9	20.3	20.4	20.6	21.4	22.6	21.3	19	18.9	18.7	22.73	30

The hourly PM2.5 values at the Hattiesburg monitor on August 24th, as shown in the image above, remained elevated in the teens and twenties throughout the day. These elevated levels were attributable to two sources: remnant Canadian wildfire smoke trapped beneath a broad area of surface high pressure and upper-level ridging, and smoke from wildfires in the southeastern United States. The combination of strong ridging and surface high pressure limited ventilation and prevented smoke dispersion in the area.

August 25th: Surface high pressure continued to create a stagnant air mass, allowing both residual smoke from Canadian wildfires and fresh smoke from ongoing wildfires in the southeastern United States to keep PM2.5 values elevated. On August 25th, large wildfires in southwest Louisiana prompted evacuations in Beauregard Parish, including the significant Tiger Island fire (source: https://www.cbsnews.com/news/louisiana-wildfires-tiger-island-fire-merryville/). Smoke from these Louisiana wildfires drifted eastward into Mississippi, further impacting PM2.5 monitors and contributing to elevated particulate levels across the state



The AirNowTech Navigator image from August 25th, 2023, shows a large batch of residual light smoke from Canadian wildfires transported into the region, combined with medium to heavy smoke from wildfires occurring primarily over eastern Texas, large wildfires previously mentioned in southwest Louisiana, southern half of Arkansas, and western half of Mississippi, elevating PM2.5 values in the region. Overlaid are 24-hour back trajectories at the Hattiesburg monitor showing very little movement of the parcel at 10m, 50m, and 1500m, indicating very stagnant air-mass in place.



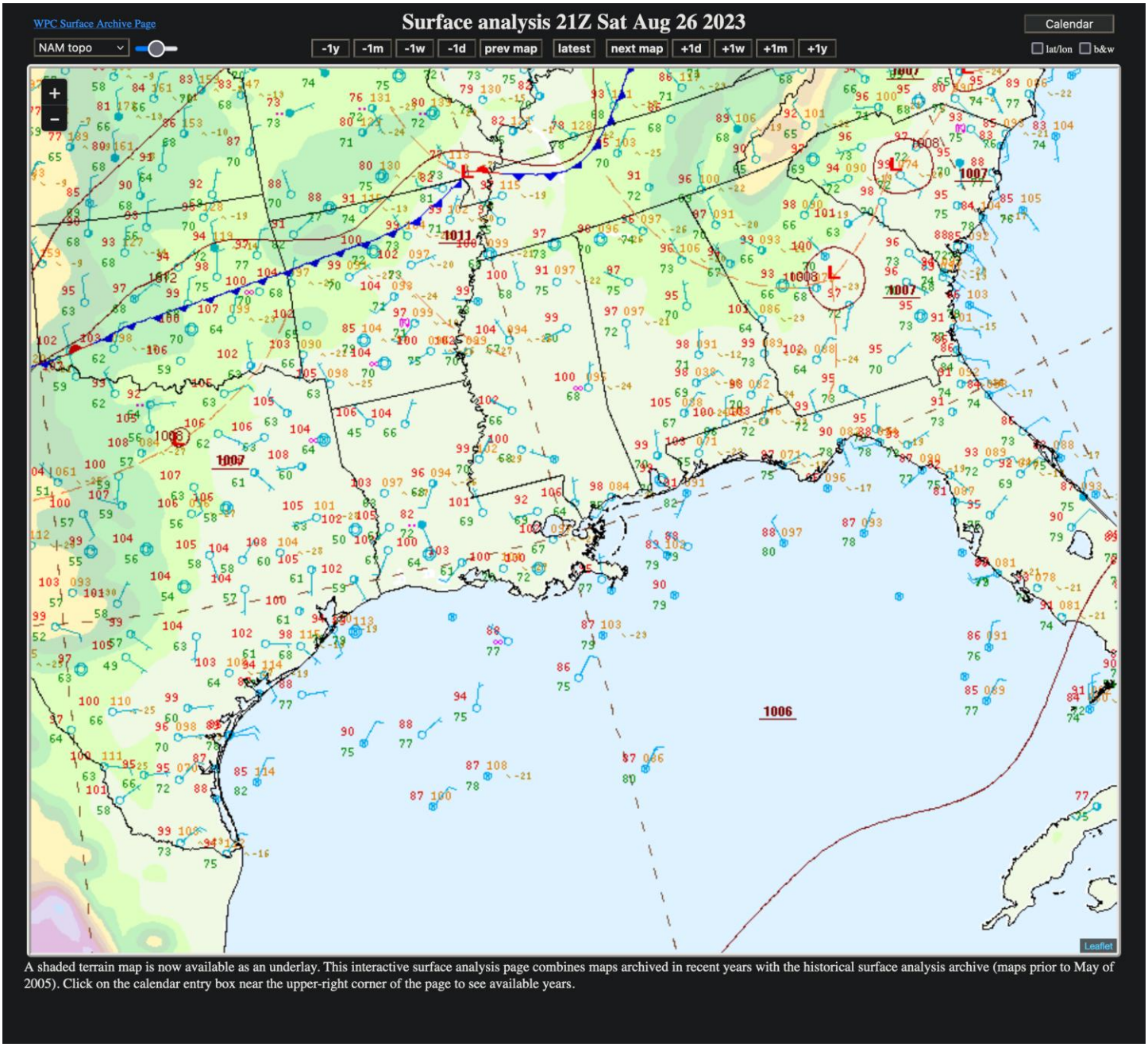
GOES East True Color image taken on August 25th, 2023, at 1521UTC, showing smoke shield encompassing southeastern United States, from both residual smoke from Canadian wildfires, coupled with smoke from local wildfires, elevating PM2.5 values. Image also shows large smoke plume from the large wildfire in southwest Louisiana, drifting north and then eastward crossing into Mississippi.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/25/23	18.7	18.8	19.5	20	19.8	20.9	22.5	22.4	19.5	19	19.6	19.3	18.1	18	17.8	17.4	14.2	14	14.4	16.4	21.4	25.4	20.6	19	19.03	25.4

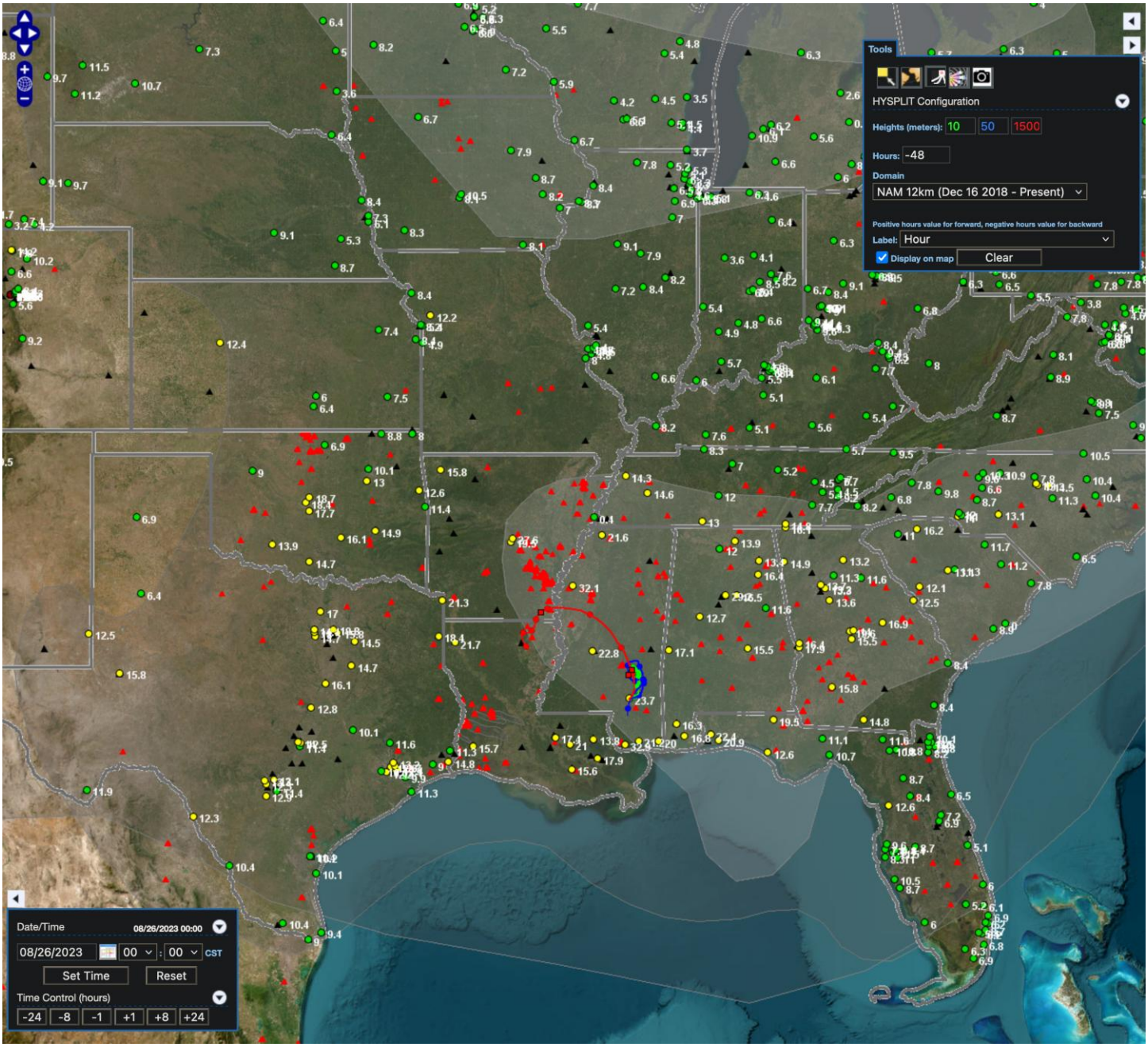
The hourly PM2.5 values at the Hattiesburg monitor on August 25th, as shown in the image above, remained elevated in the teens and twenties throughout the day. These elevated levels were attributable to two sources: remnant Canadian wildfire smoke trapped beneath a broad area of surface high pressure and upper-level ridging,

and smoke from wildfires in the southeastern United States The combination of strong ridging and surface high pressure limited ventilation and prevented smoke dispersion in the area.

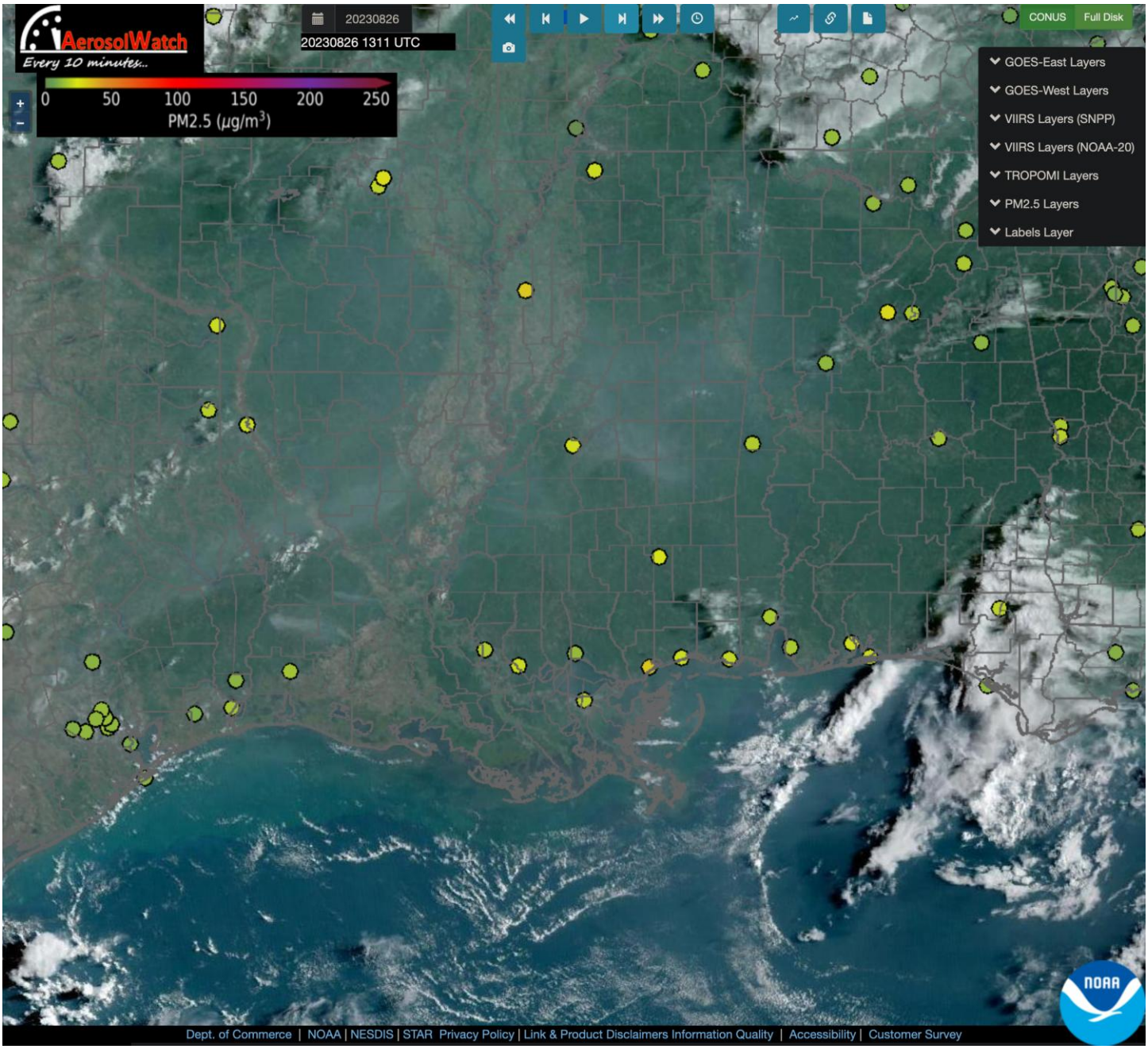
August 26th: Surface analysis showed persistent high pressure dominating the area, maintaining stagnant conditions. During this period, many locations across the southeastern United States experienced daytime highs exceeding 100°F. Strong subsidence contributed to the extreme heating, further indicating stagnant conditions and preventing ventilation of smoke from the ongoing wildfires across the area.



The 21z surface analysis (August 26th, 2023, at 4 PM CDT) shows surface High pressure is in firm control over the southeast, bringing with it very stable conditions, preventing mixing/ventilation of residual surface smoke in place from the Canadian wildfires coupled with newly acquired smoke from wildfires, that was occurring over the southeastern United States. Surface analysis also showing daytime highs at many ASOS stations exceeding 100F across the area which is also a strong indicator of stagnant conditions coupled with very light winds.



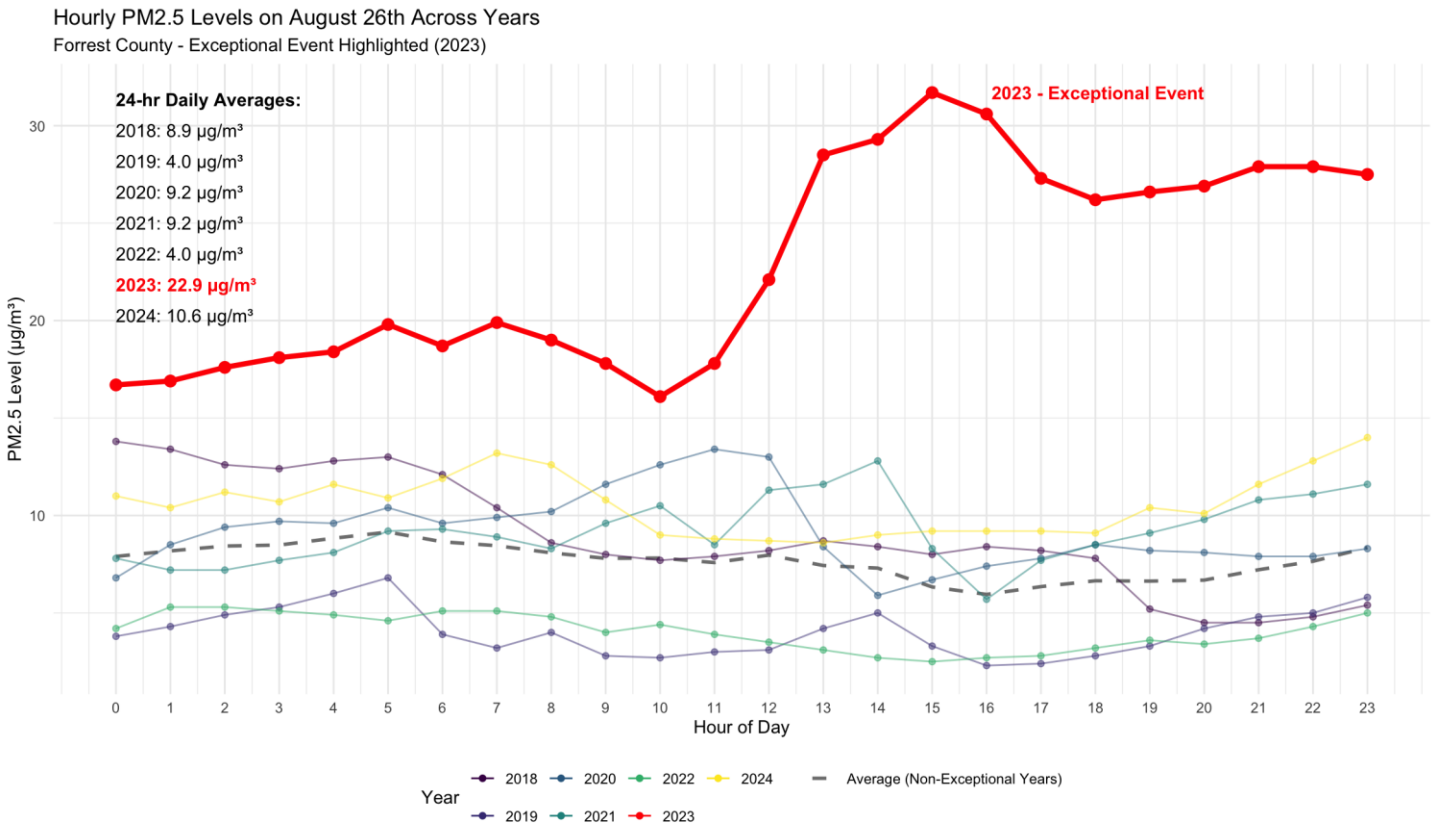
The AirNowTech Navigator image from August 26th, 2023, shows a large area of residual light smoke from Canadian wildfires transported into the region, combined with smoke from wildfires across the southeastern United States, elevating PM2.5 values throughout the area. Overlaid 48-hour back trajectories at the Hattiesburg monitor show minimal movement of air parcels at 10m, 50m, and 1500m, indicating a highly stagnant air mass. The 1500m trajectory originates from Louisiana, where large wildfires days prior had produced smoke-laden air that subsequently drifted eastward and southward, ultimately affecting the Hattiesburg monitor.



GOES East True Color image taken on August 26th, 2023, at 1311UTC, showing smoke shield encompassing much of Louisiana and Mississippi, primarily from smoke that originated from the large Louisiana wildfires, drifting eastward into Mississippi, coupled with local wildfires, elevating PM2.5 values.

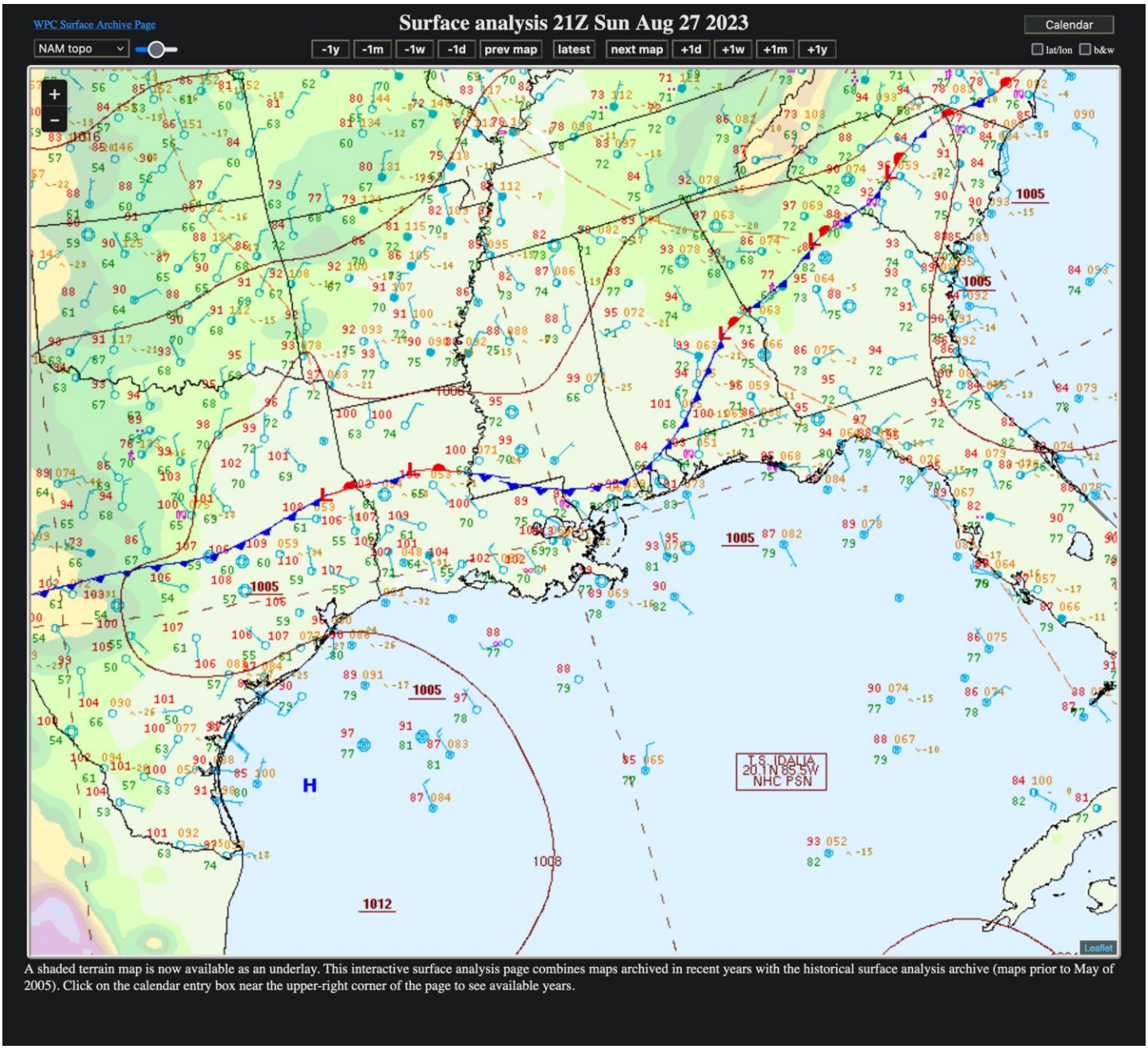
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/26/23	17.6	17.8	18.5	19	19.3	20.7	19.6	20.8	19.9	18.7	17	18.7	23	29.4	30.2	32.6	31.5	28.2	27.1	27.5	27.8	28.8	28.8	28.4	23.79	32.6

The hourly PM2.5 values at the Hattiesburg monitor on August 26th, as shown in the image above, remained in the teens during the morning and early afternoon hours before increasing into the twenties and thirties during the late afternoon and evening. This increase coincided with the southward drift of the smoke shield over the Hattiesburg monitor, as captured by GOES East True Color imagery.

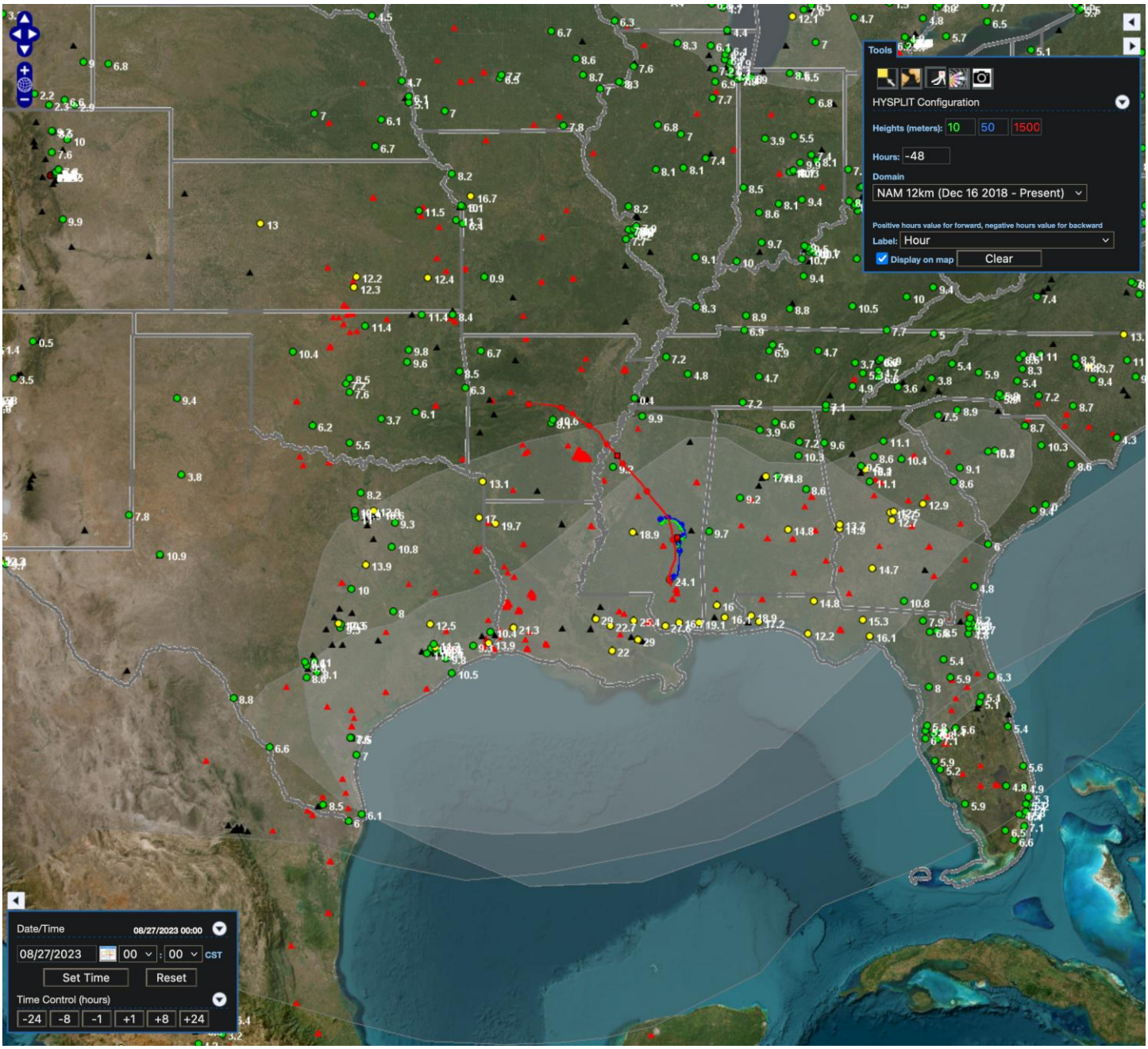


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations throughout August 26th, 2023, with particularly high values during the late afternoon and evening hours as smoke-laden air from Louisiana wildfires impacted the Hattiesburg monitor. These elevated concentrations resulted in a 24-hour average of 22.9 µg/m^3.

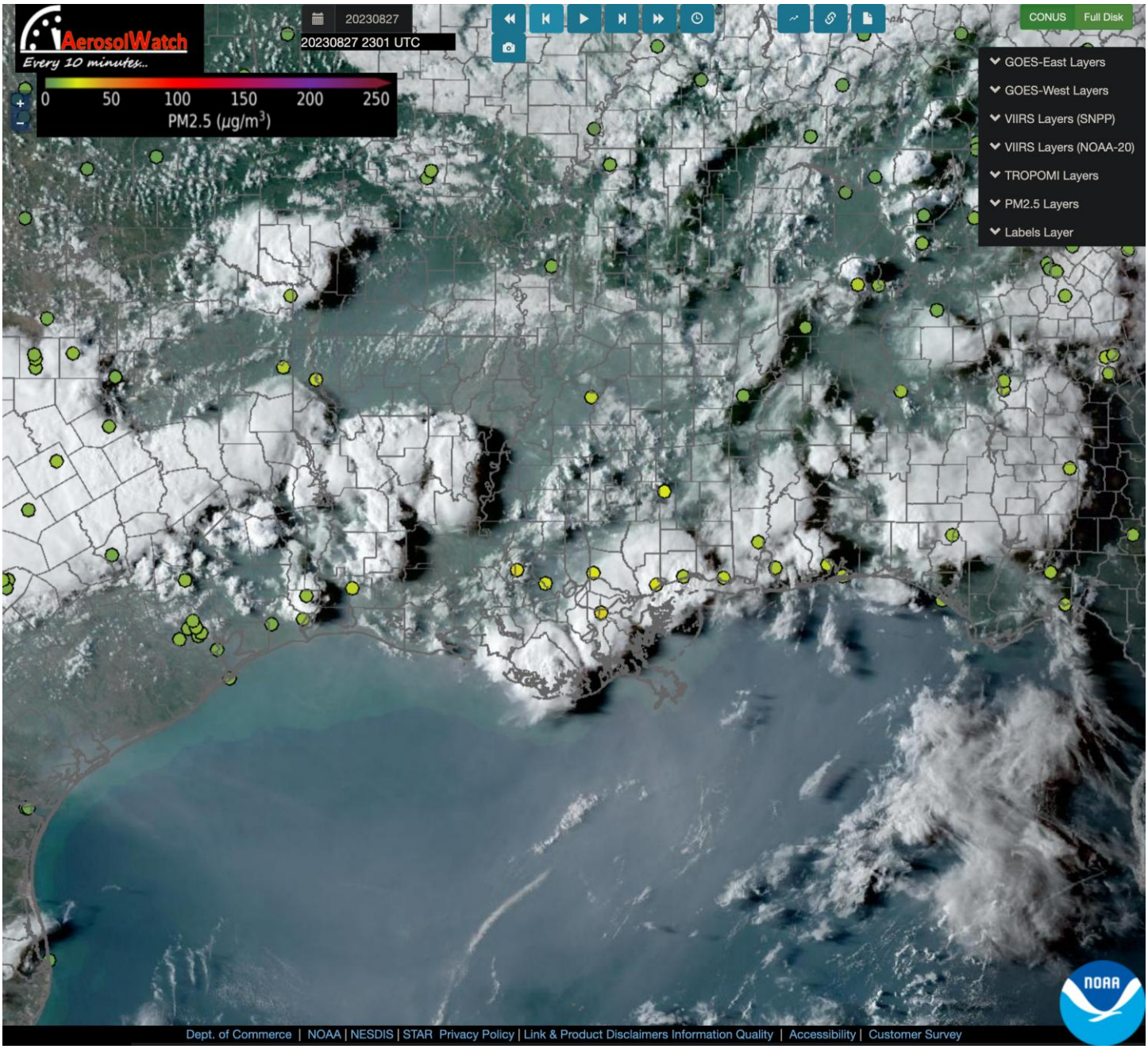
August 27th: August 27th saw a surface frontal boundary drop from north to south across Mississippi during the day helping spark off shower and thunderstorms especially during the late afternoon into the evening hours. Prior to the shower and thunderstorm development, PM2.5 values remained high during the overnight hours of the 26th going into the 27th, persisting until the late evening hours on the 27th thanks to residual smoke left over from wildfire activity across the area that occurred in previous days.



The 21z surface analysis (August 27th, 2023, at 4 PM CDT) shows cold front that is making its way through southern Mississippi and Alabama which would help suppress wildfire smoke from previous days wildfires to central and southern portions of the gulf states.



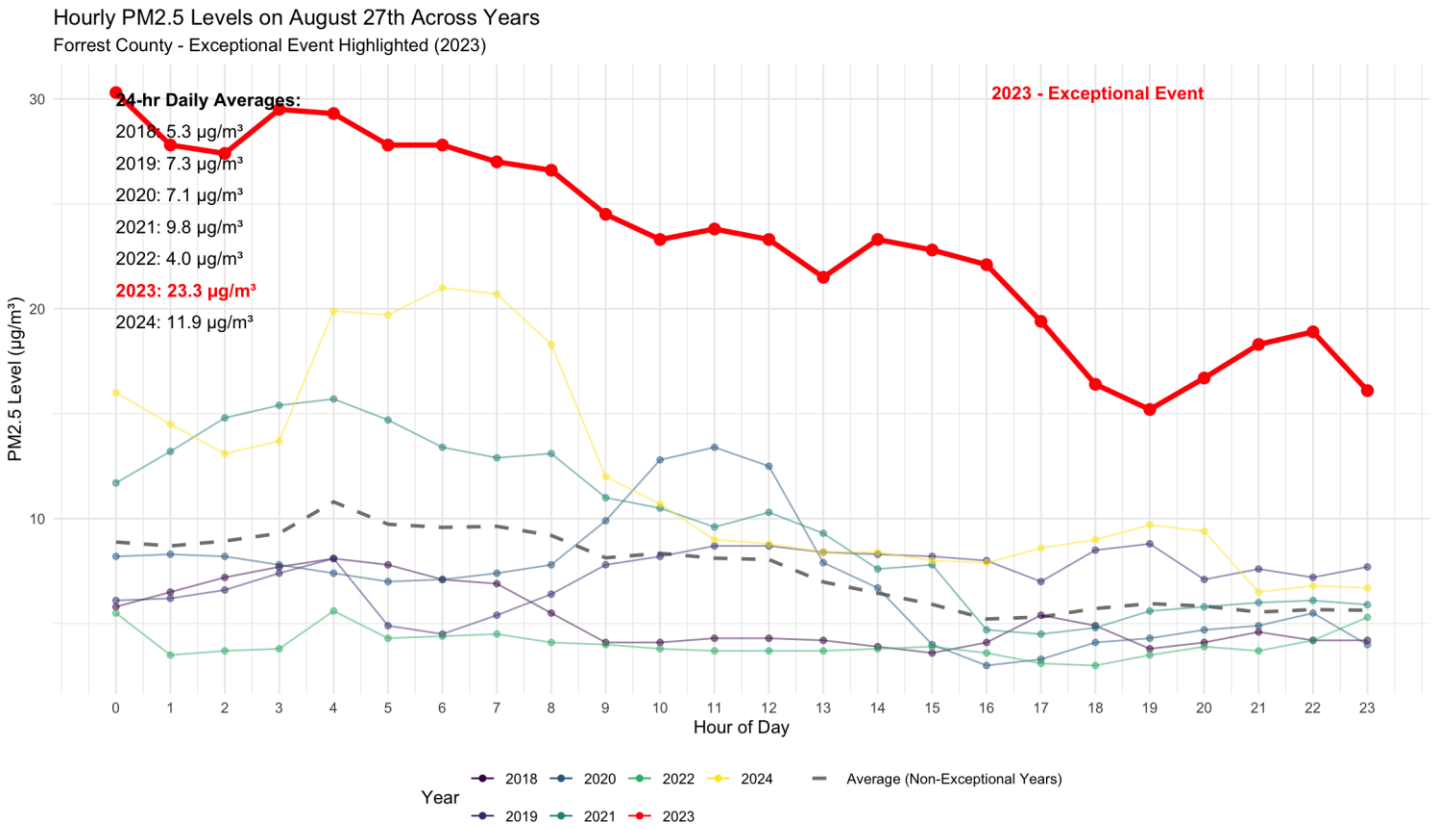
The AirNowTech Navigator image from August 27th, 2023, shows a large area of residual wildfire smoke across the southeastern United States. A surface frontal boundary is suppressing this smoke southward near the Gulf Coast, resulting in lower 24-hour PM2.5 values across Arkansas, Tennessee, northern Mississippi, Alabama, and Georgia as cleaner post-frontal air moves into these areas. Higher PM2.5 24-hour values in the mid-moderate category are concentrated in central and southern Mississippi, where the surface boundary has pushed and confined the smoke. This is also shown in the overlaid 48-hour back trajectory as the parcel is moving from north to south.



GOES East True Color imagery from August 27th, 2023, at 2301 UTC clearly shows a delineation of smoke density. A dense smoke shield extends from central Mississippi southward into the Gulf of Mexico, maintaining PM2.5 values in the moderate category. In contrast, northern Mississippi experiences cleaner post-frontal air, with PM2.5 values remaining in the good range.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	08/27/23	31.2	28.7	28.3	30.4	30.2	28.7	28.7	27.9	27.5	25.4	24.2	24.7	24.2	22.4	24.2	23.7	23	20.3	17.3	16.1	17.6	19.2	19.8	17	24.2	31.2

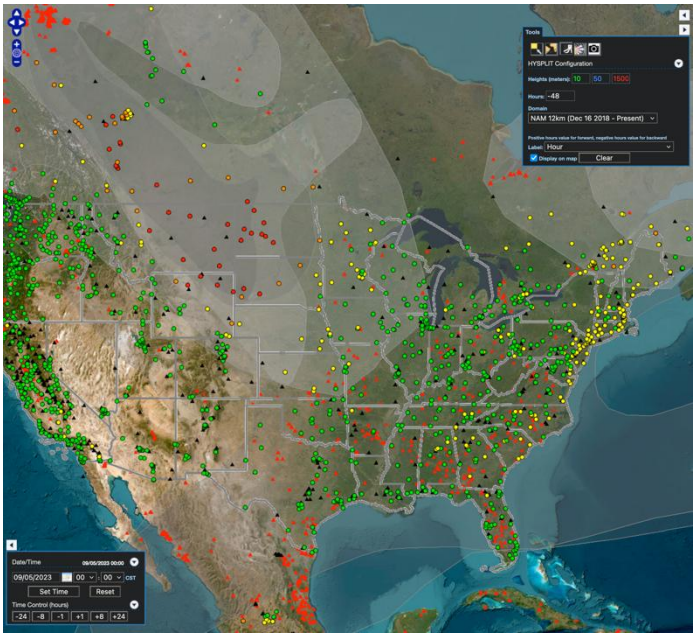
The hourly PM2.5 values at the Hattiesburg monitor on August 27th, as shown in the image above, remained in the twenties and thirties during most of the day before decreasing into the teens during the late evening hours. This decrease in values coincided with evening convection associated with surface frontal boundary yet the 24-hour PM2.5 value for the day was well into the twenties.

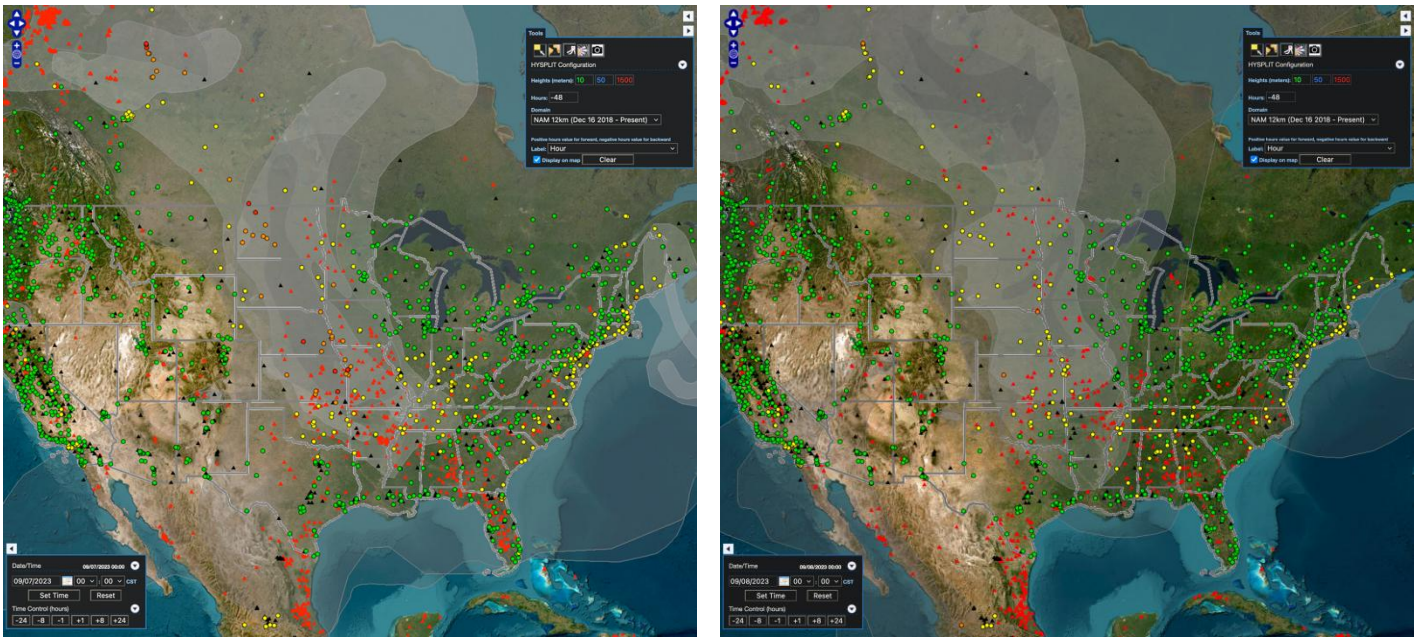


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations throughout August 27th, 2023, with particularly high values during the morning going into the afternoon hours as smoke-laden air from local wildfires impacted the Hattiesburg monitor.

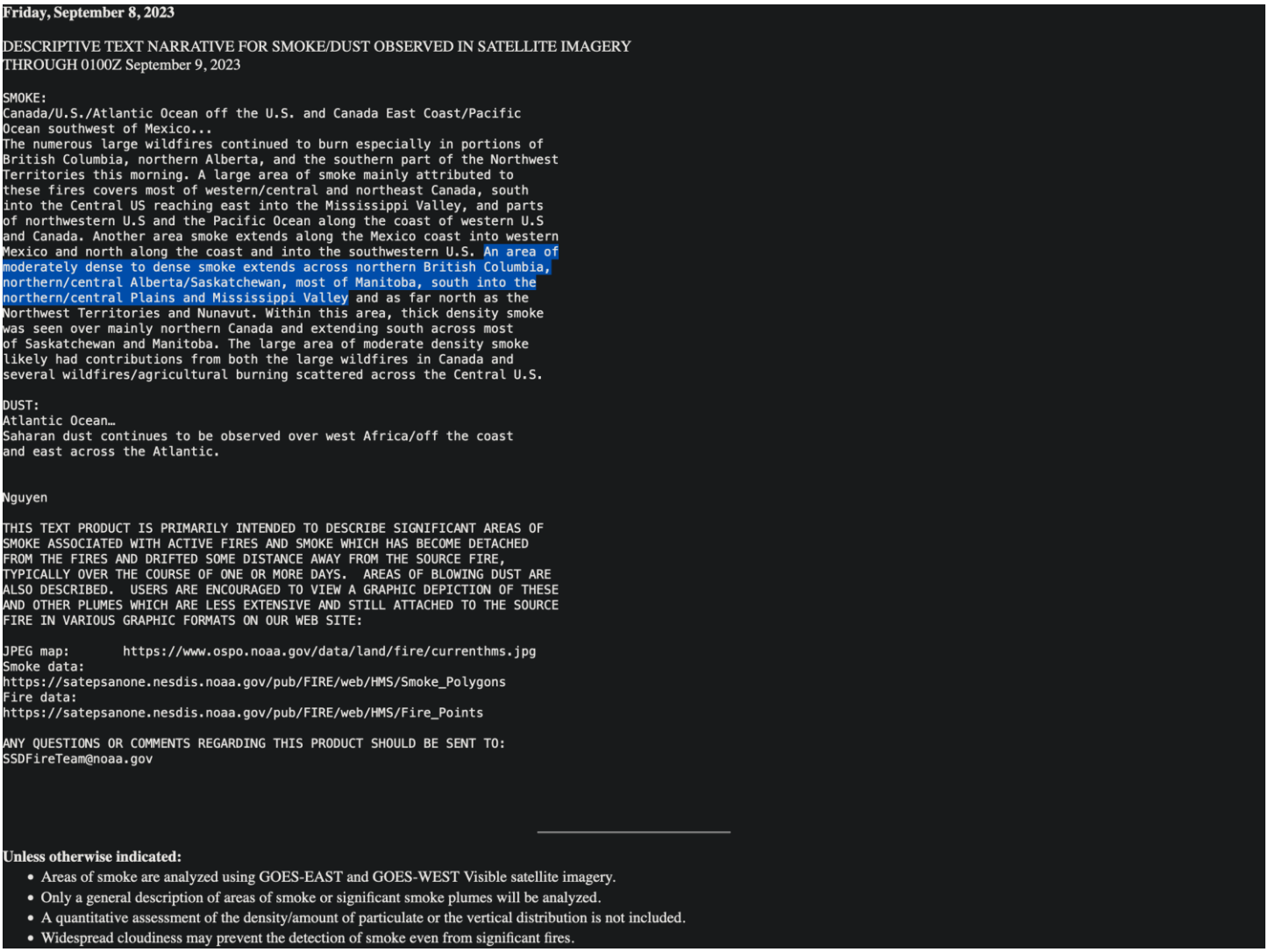
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
Sept 8 – 9, 2023	Canadian WF	RF	28-035-0004	Hattiesburg	16.7 & 17.2	2, 3	Canadian Wildfire C Exceptional Event Demonstration: September 8 - 9, 2023

Synopsis: In the days leading up to this exceptional event, numerous large wildfires continued burning across British Columbia, northern Alberta, and the southern Northwest Territories. These fires produced abundant smoke that blanketed much of western and central Canada, as well as the upper Midwest and central United States. The smoke transport to these United States regions occurred along a surface cold front moving through the central United States, supported by upper level troughing over the eastern half of the country. By September 8th, the surface front had pushed into the Gulf states and the Gulf of Mexico, bringing smoke-laden air from the Canadian wildfires behind the frontal passage and affecting PM2.5 monitors across the southeast.





A series of AirNowTech Navigator images taken from September 5th through September 8th, 2023, shows the progression of Canadian wildfire smoke as it transported across the United States. The smoke initially moved into the northeastern United States and Midwest before advancing into the Mid-South and southeast regions. This transport was facilitated by two key meteorological factors: upper level troughing over the eastern half of the United States and surface frontal boundaries descending from Canada. These conditions helped carry the wildfire smoke deep into the southeastern United States, resulting in elevated PM2.5 values.



Friday, September 8, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0100Z September 9, 2023

SMOKE:
Canada/U.S./Atlantic Ocean off the U.S. and Canada East Coast/Pacific
Ocean southwest of Mexico...
The numerous large wildfires continued to burn especially in portions of
British Columbia, northern Alberta, and the southern part of the Northwest
Territories this morning. A large area of smoke mainly attributed to
these fires covers most of western/central and northeast Canada, south
into the Central US reaching east into the Mississippi Valley, and parts
of northwestern U.S and the Pacific Ocean along the coast of western U.S
and Canada. Another area smoke extends along the Mexico coast into western
Mexico and north along the coast and into the southwestern U.S. An area of
moderately dense to dense smoke extends across northern British Columbia,
northern/central Alberta/Saskatchewan, most of Manitoba, south into the
northern/central Plains and Mississippi Valley and as far north as the
Northwest Territories and Nunavut. Within this area, thick density smoke
was seen over mainly northern Canada and extending south across most
of Saskatchewan and Manitoba. The large area of moderate density smoke
likely had contributions from both the large wildfires in Canada and
several wildfires/agricultural burning scattered across the Central U.S.

DUST:
Atlantic Ocean…
Saharan dust continues to be observed over west Africa/off the coast
and east across the Atlantic.

Nguyen

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

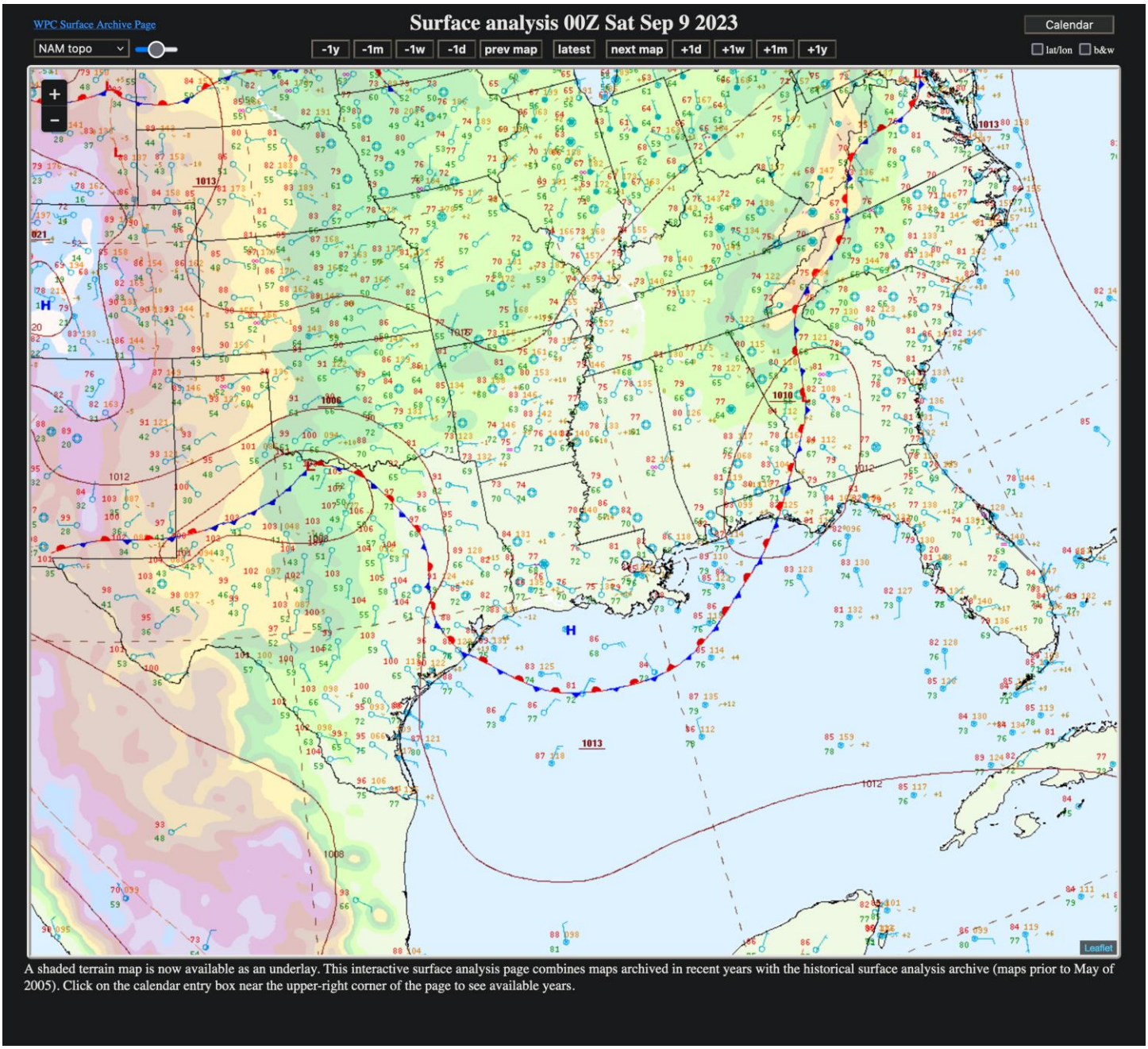
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

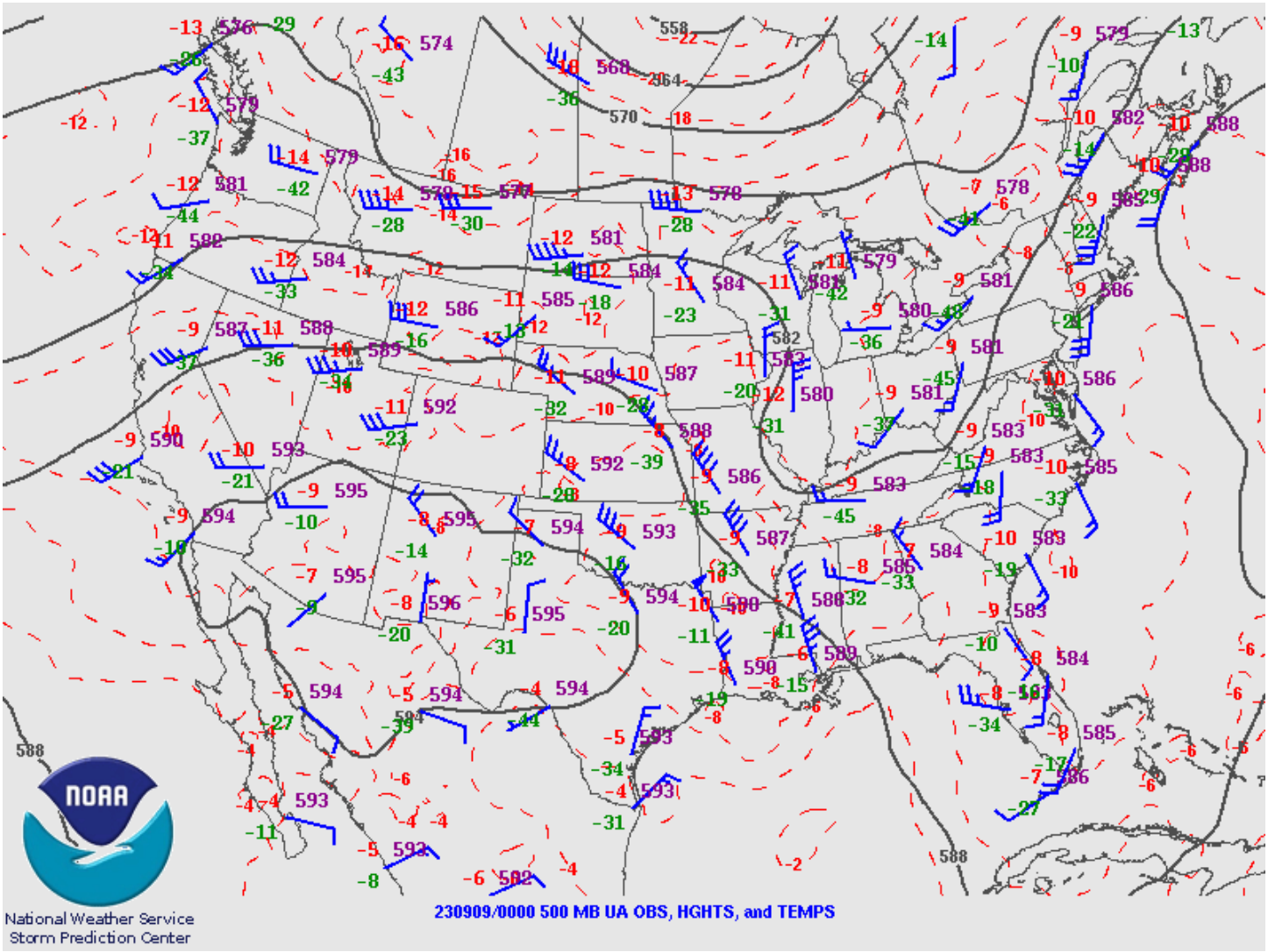
Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

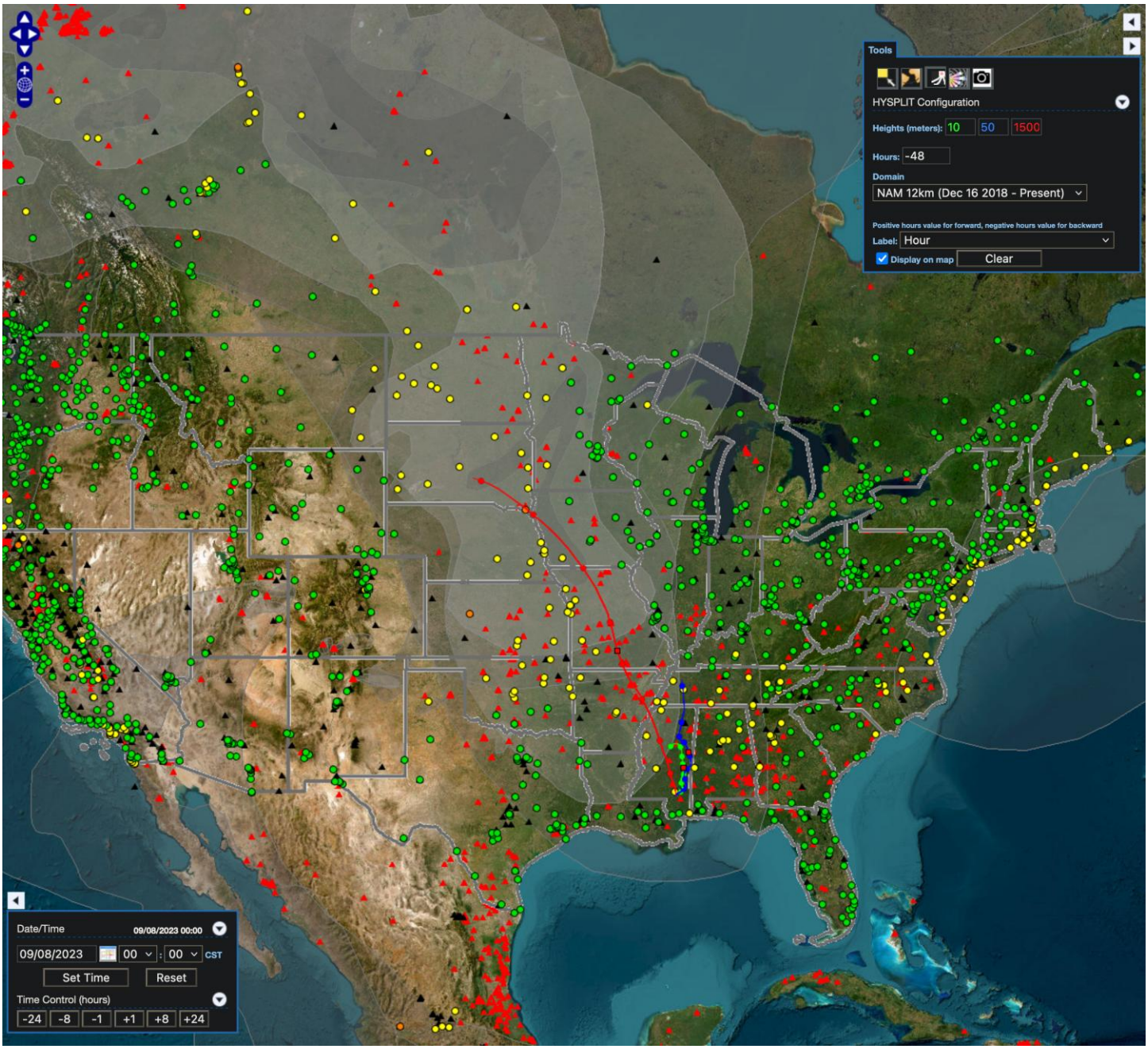
2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023I090156.html) narrative dated September 9th, 2023, at 0100Z (corresponding to September 8th, 2023, at 8:00 PM CDT) describes smoke from Canadian wildfires extending from Canada into the Mississippi Valley. This smoke transport was facilitated by upper level troughing over the eastern half of the United States and surface frontal boundaries descending from Canada, which helped carry the smoke deep into the southern United States.



The 00z surface analysis (September 9th, 2023, at 7 PM CDT) shows cold front that has made its way through the Gulf States and into the Gulf of Mexico, issuing in behind it, smoke laden air-mass from Canadian wildfires.



The 500 mb upper-level analysis from 00Z (September 9th, 2023, at 7 PM CDT) shows developing troughing over the eastern United States, which was amplified by a building ridge over the Four Corners region. This strengthened pattern helped distribute smoke from the Canadian fires southward to the Gulf States.

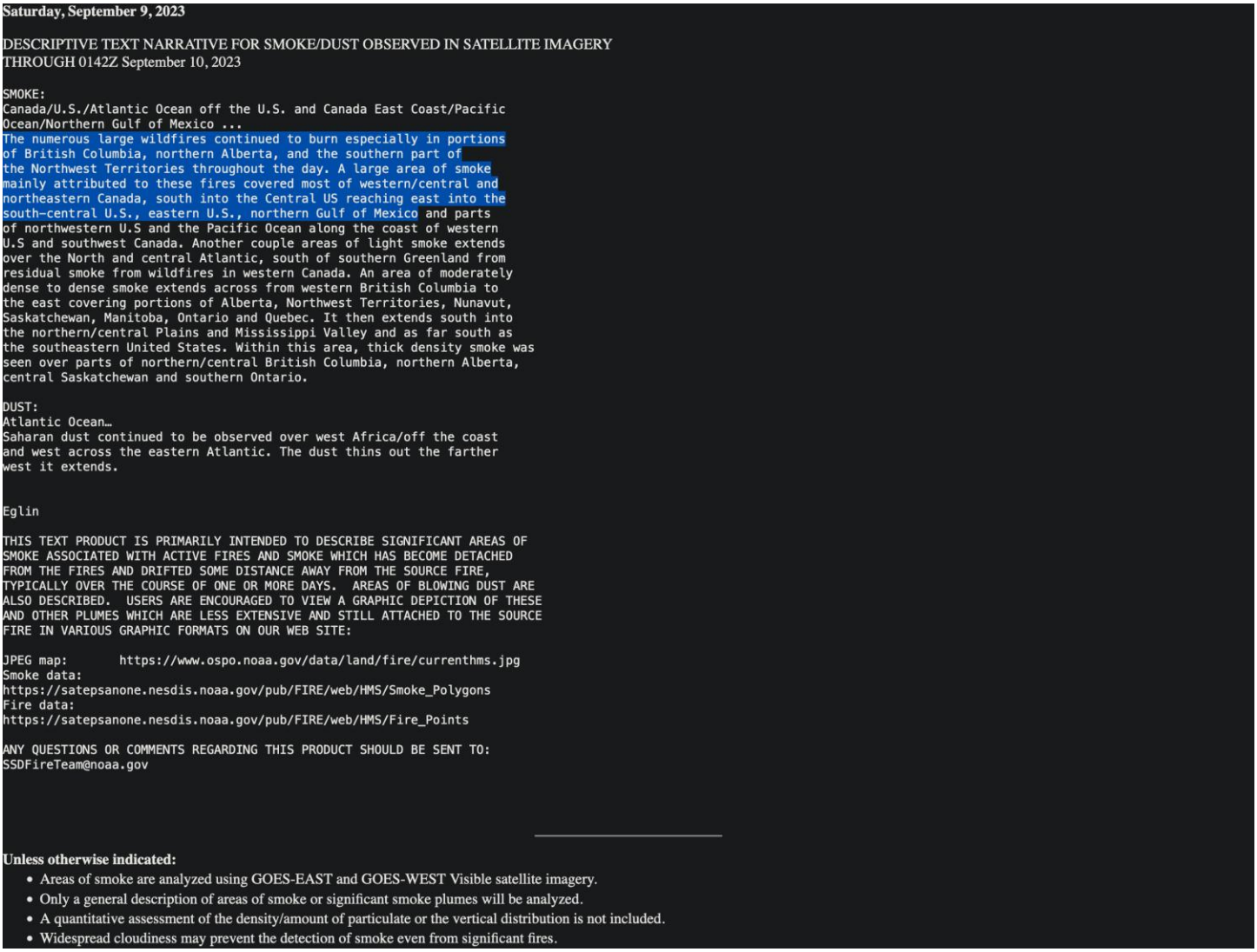


The AirNowTech Navigator image from September 8th, 2023, shows smoke from Canadian wildfires moving southward behind a surface frontal boundary that had advanced into the northern Gulf of Mexico. Overlaid 48-hour back trajectories at 10m, 50m, and 1500m heights show air parcels moving from north to south, with the 1500m parcel notably tracing directly back to heavily concentrated smoke in the upper Midwest.

Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	09/08/23	8.2	8.2	8.7	9.6	9.1	8	8.4	13	16.1	18.7	19.7	20	20.8	20.9	20.6	20	19.3	19.9	23.5	24.6	22.7	25.4	29	29.5	17.66	29.5

The hourly PM2.5 values at the Hattiesburg monitor on September 8th, as shown in the image above, demonstrate that PM2.5 concentrations were in the single digits ahead of the frontal boundary. After the frontal passage in the mid-morning hours, PM2.5 values rose into the upper teens and twenties for the remainder of the day as the smoke-laden air mass from the Canadian wildfires moved into the area.

September 9th: Surface High pressure was in firm control over the area after previous days surface frontal passage while aloft there was an upper-level low situated over the Tennessee Valley/backbone of the Application mountains. These two synoptic features were helping to continue to transport smoke from Canadian wildfires deep down into the southeastern United States, elevating PM2.5 values.



Saturday, September 9, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0142Z September 10, 2023

SMOKE:
Canada/U.S./Atlantic Ocean off the U.S. and Canada East Coast/Pacific Ocean/Northern Gulf of Mexico ...
The numerous large wildfires continued to burn especially in portions of British Columbia, northern Alberta, and the southern part of the Northwest Territories throughout the day. A large area of smoke mainly attributed to these fires covered most of western/central and northeastern Canada, south into the Central US reaching east into the south-central U.S., eastern U.S., northern Gulf of Mexico and parts of northwestern U.S and the Pacific Ocean along the coast of western U.S and southwest Canada. Another couple areas of light smoke extends over the North and central Atlantic, south of southern Greenland from residual smoke from wildfires in western Canada. An area of moderately dense to dense smoke extends across from western British Columbia to the east covering portions of Alberta, Northwest Territories, Nunavut, Saskatchewan, Manitoba, Ontario and Quebec. It then extends south into the northern/central Plains and Mississippi Valley and as far south as the southeastern United States. Within this area, thick density smoke was seen over parts of northern/central British Columbia, northern Alberta, central Saskatchewan and southern Ontario.

DUST:
Atlantic Ocean…
Saharan dust continued to be observed over west Africa/off the coast and west across the eastern Atlantic. The dust thins out the farther west it extends.

Eglin

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

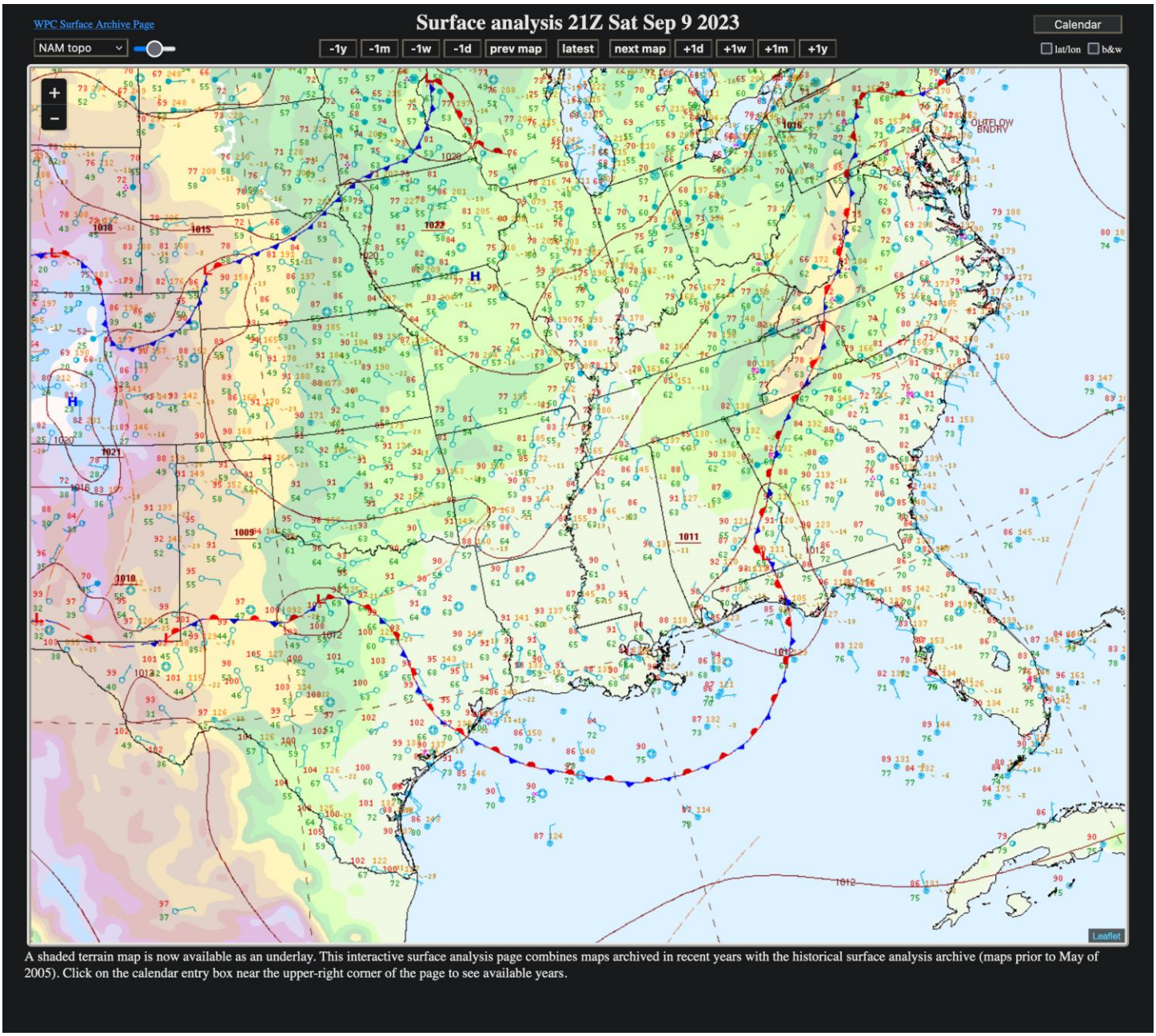
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

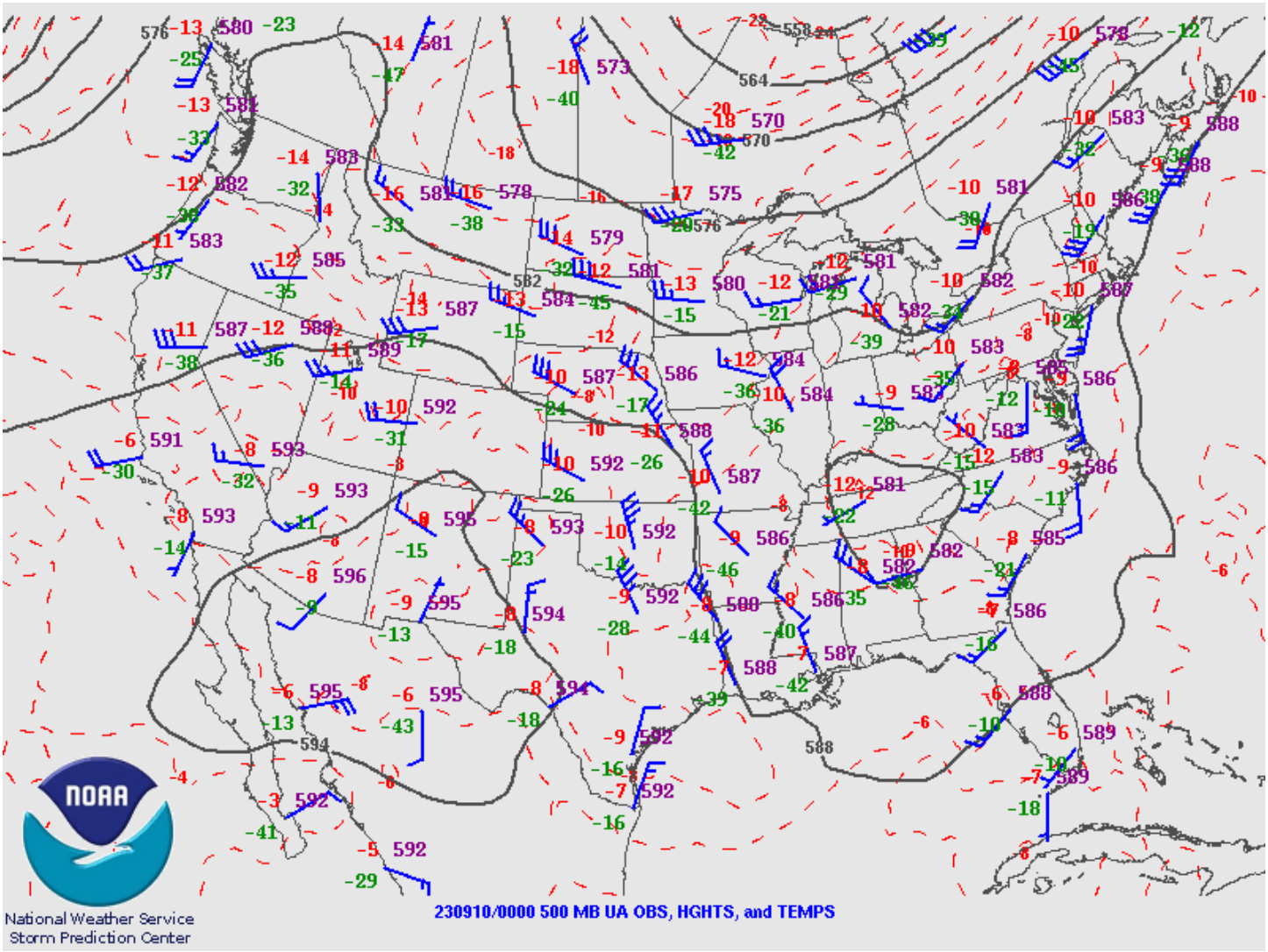
Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

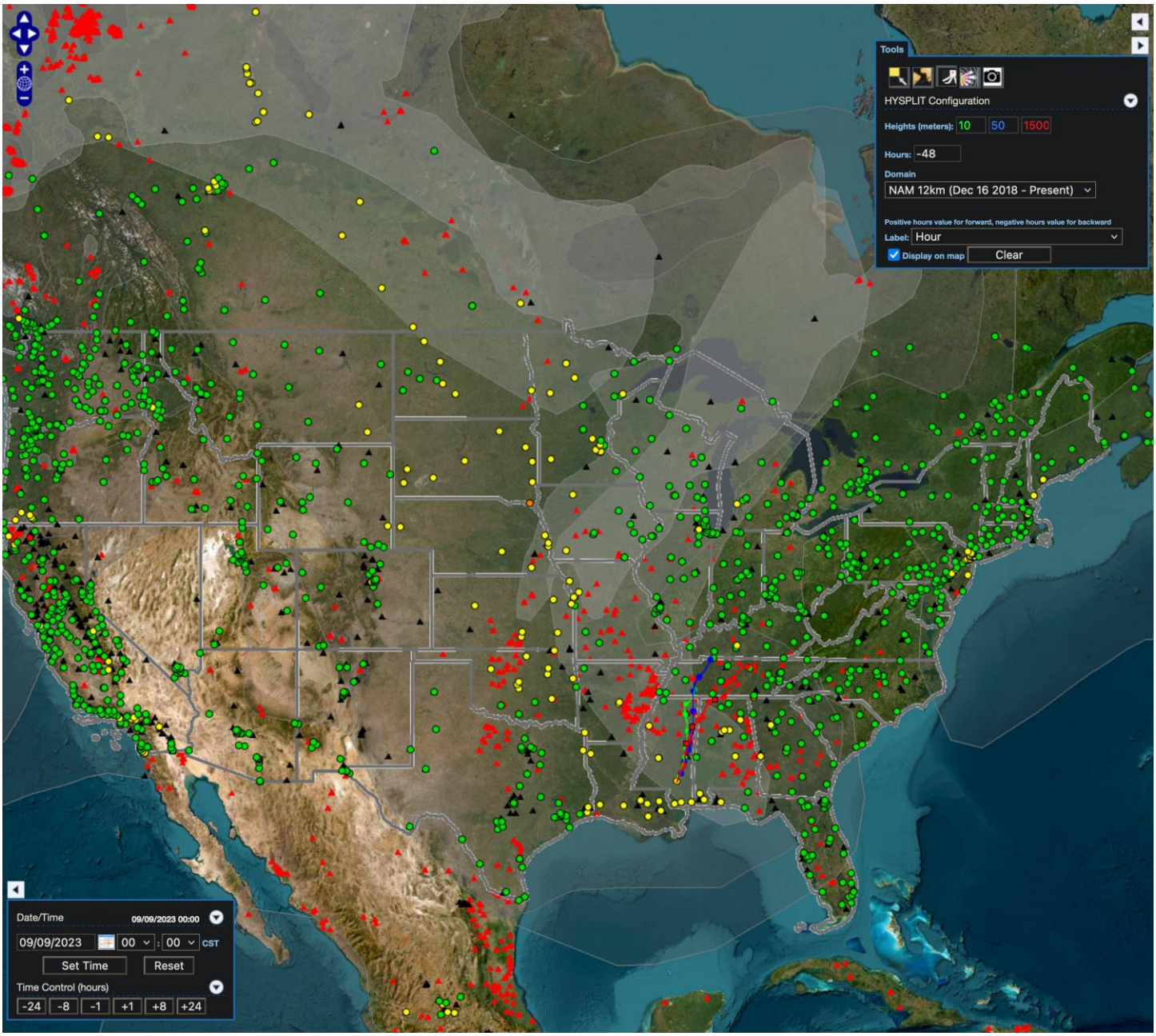
The 2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023l100141.html) narrative dated September 10th, 2023, at 0142Z (corresponding to September 9th, 2023, at 8:42 PM CDT) describes a large area of smoke from Canadian wildfires extending south into the Central United States, reaching east into the south-central and eastern United States, and down to the northern Gulf of Mexico. This smoke transport was facilitated by upper level troughing over the eastern half of the United States and surface frontal boundaries descending from Canada, which helped carry the smoke deep into the southern United States.



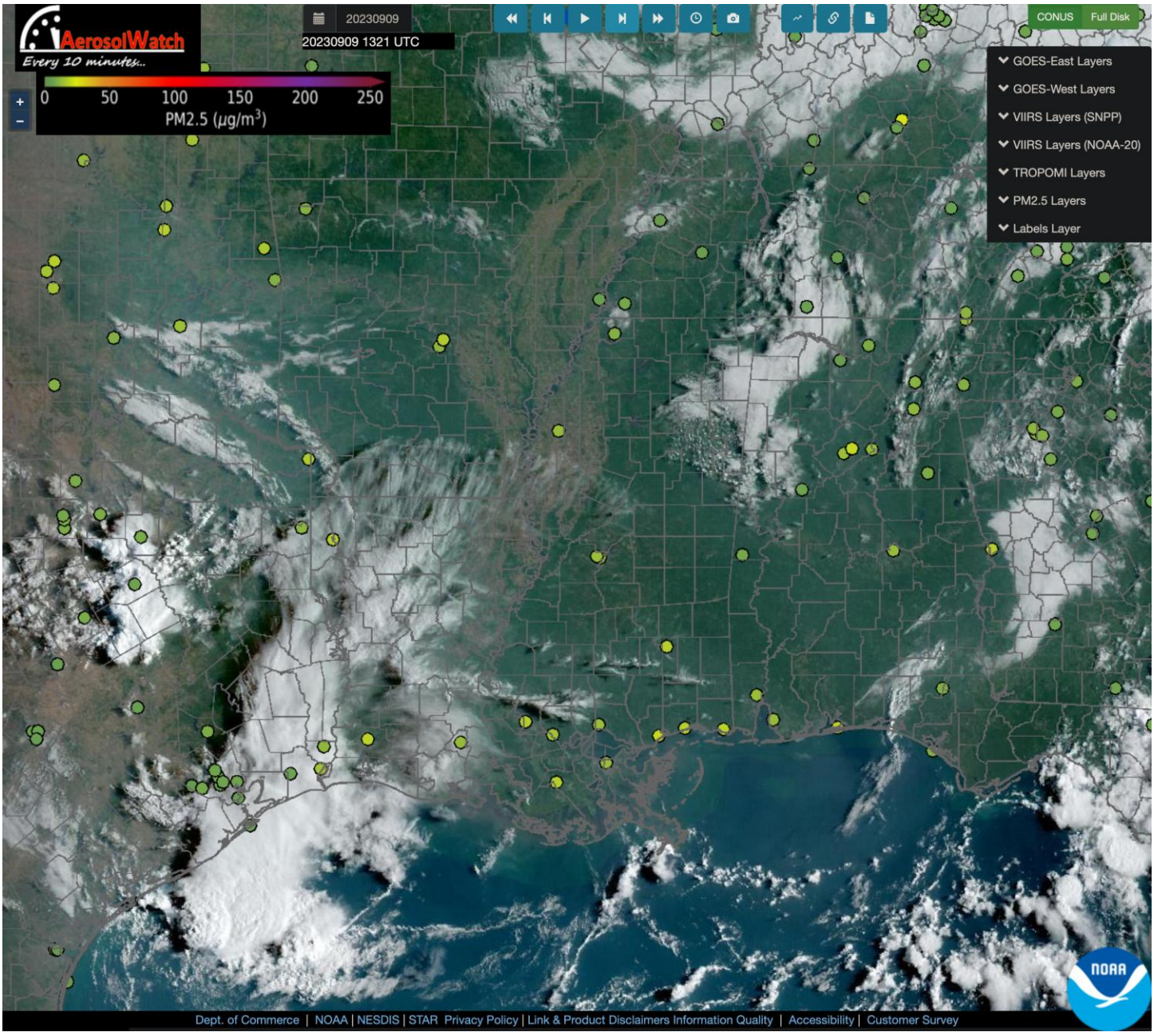
The 21z surface analysis (September 9th, 2023, at 4PM CDT) shows previous days cold has made its way through the Gulf States and into the Gulf of Mexico, coupled with surface High pressure centered over the northern Missouri, southern Iowa, continuing to issue in smoke laden air-mass from Canadian wildfires down into the southeastern United States.



The 500 mb upper-level analysis from 00Z (September 10th, 2023, at 7 PM CDT) shows closed upper-level low over the Tennessee River Valley, southern Applications, helping distribute smoke from the Canadian fires southward to the Gulf States.



The AirNowTech Navigator image from September 9th, 2023, shows smoke from Canadian wildfires continuing to move southward following the passage of the previous day's surface frontal boundary. This movement was driven by northerly surface winds created by anticyclonic flow around a high-pressure system over Missouri/Iowa, in conjunction with cyclonic flow from an upper-level low over eastern Tennessee/Kentucky. These conditions helped transport smoke from Canadian wildfires deep into the southeastern United States. Overlaid 48-hour back trajectories at 10m, 50m, and 1500m heights show air parcels moving from north to south, tracing directly back to heavily concentrated smoke located north of the Hattiesburg monitor, resulting in elevated PM2.5 values.



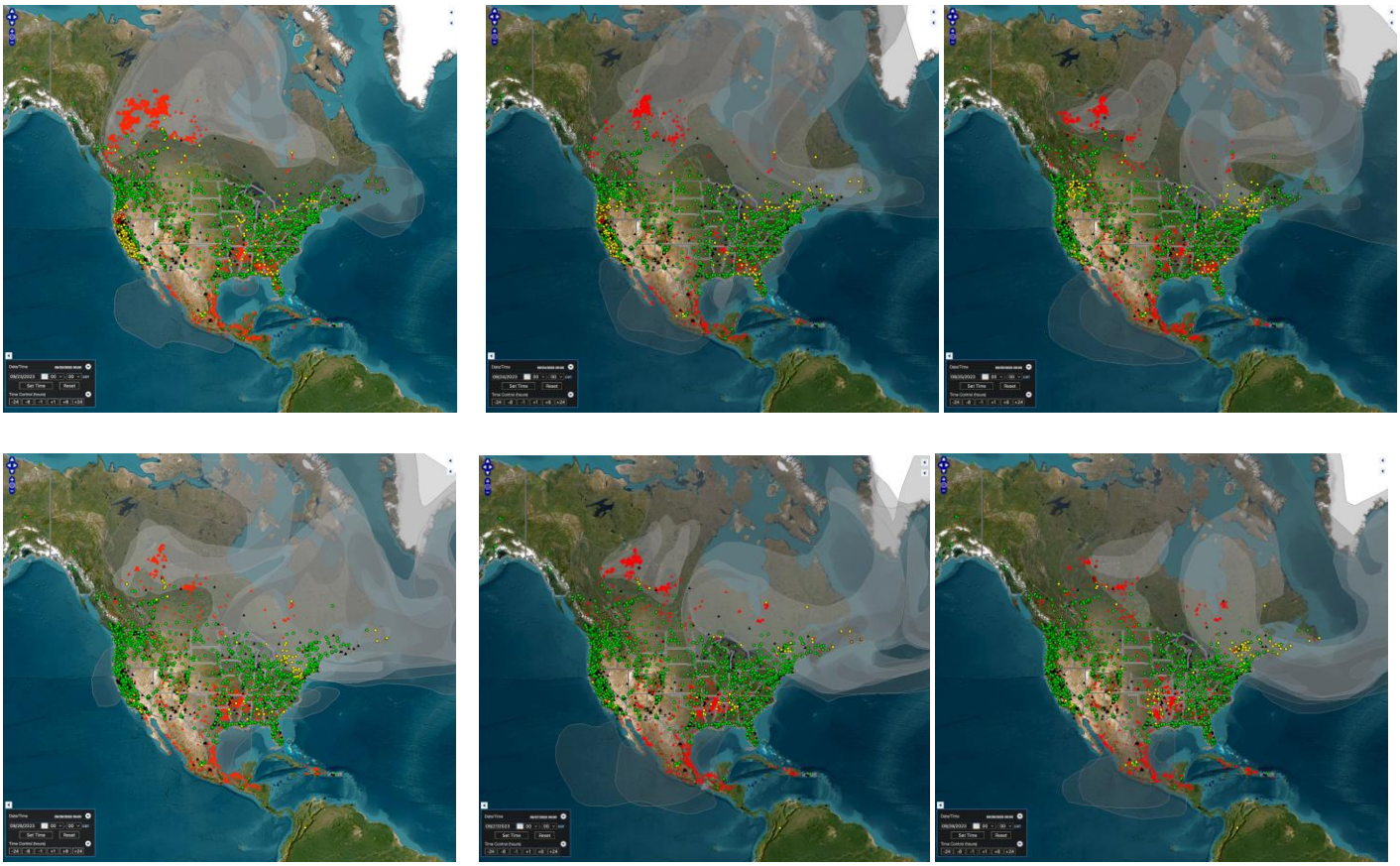
GOES East True Color imagery from September 9th, 2023, at 1321 UTC shows dense smoke shield covering most of the southeast, extending into the Gulf of Mexico, keeping PM2.5 values elevated in the moderate category.

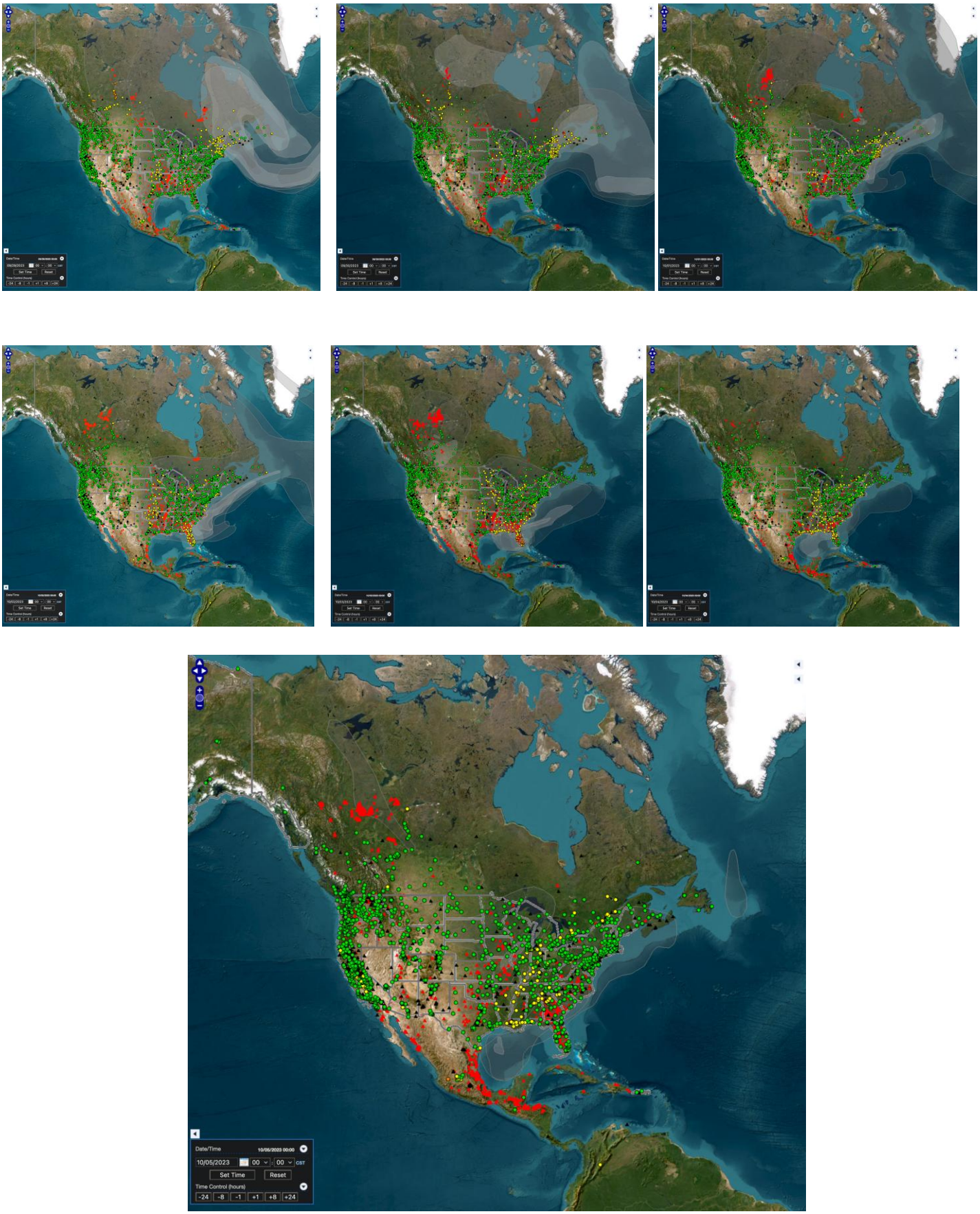
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	09/09/23	28.7	29	28.9	28.2	27.2	26.3	24.5	22.8	20.8	15.8	15.2	15	14.1	12.9	12.2	12.3	12.4	12.3	13.5	13.2	12.4	13.1	13.2	12.7	18.2	29

The hourly PM2.5 values at the Hattiesburg monitor on September 9th showed readings well into the twenties throughout the morning hours due to a strong nocturnal inversion that had developed overnight, trapping smoke from the Canadian wildfires close to the surface. As the day progressed, PM2.5 values decreased into the teens in response to increased daytime heating and mixing levels, providing some ventilation of smoke. Although there was partial ventilation, smoke from the Canadian fires continued to impact the monitor throughout the day. This persistent smoke impact, combined with the high morning values caused by trapping under the shallow nocturnal inversion, resulted in a daily 24-hour average of 18.2 µg/m^3.

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
October 3 – 5, 2023	Canadian WF	RF	28-035-0004	Hattiesburg	14.7, 31, 19.6	1 ,2, 3	Canadian Wildfire C Exceptional Event Demonstration: October 3 - 5, 2023

Synopsis: In the days leading up to the exceptional event at the Hattiesburg monitor, numerous wildfires in both northwestern Canada as well as northeastern and eastern Canada which created a large shield of wildfire smoke that blanketed much of Canada. From late September into early October, these Canadian wildfires produced smoke that was transported across North America, generating widespread news coverage. The smoke moved southward over the northeastern United States and Mid-Atlantic region, then continued south over Florida and westward into the southeastern United States, ultimately impacting the Hattiesburg monitor in Mississippi.



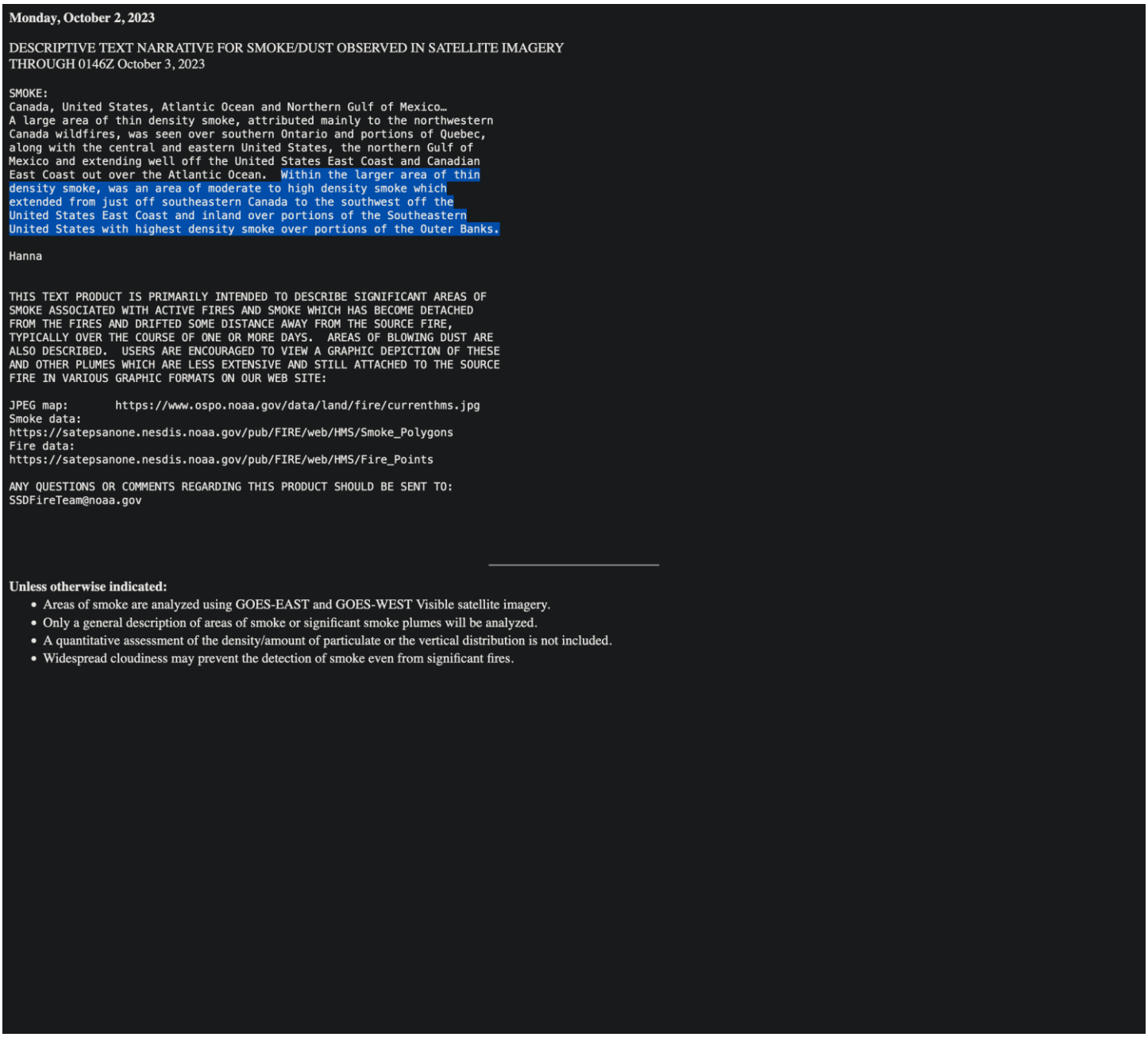


A series of AirNowTech Navigator images from September 23rd through October 5th, 2023, shows the progression of Canadian wildfire smoke. The smoke from fires in western Canada moved eastward and merged with smoke

from ongoing wildfires in Quebec. The combined plume then transported southward into the northeastern United States, through the Mid-Atlantic states, reached Florida, and ultimately moved westward into the southeastern United States.

This transport was facilitated by two key meteorological factors: upper-level ridging over the Great Lakes and an upper-level low pressure system stationed off the New England coastline. The interaction between these systems—anticyclonic flow from the upper-level high over the Great Lakes and cyclonic flow from the upper-level low off New England—directed the smoke's movement from Canada through the northeastern United States and Mid-Atlantic states into Florida and the southeast.

At the surface, a sprawling 1022mb high pressure system over the Mid-Atlantic region guided the smoke in an anticyclonic pattern over Florida and westward into the Gulf States, resulting in elevated PM2.5 values.



Monday, October 2, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0146Z October 3, 2023

SMOKE:
Canada, United States, Atlantic Ocean and Northern Gulf of Mexico…
A large area of thin density smoke, attributed mainly to the northwestern Canada wildfires, was seen over southern Ontario and portions of Quebec, along with the central and eastern United States, the northern Gulf of Mexico and extending well off the United States East Coast and Canadian East Coast out over the Atlantic Ocean. Within the larger area of thin density smoke, was an area of moderate to high density smoke which extended from just off southeastern Canada to the southwest off the United States East Coast and inland over portions of the Southeastern United States with highest density smoke over portions of the Outer Banks.

Hanna

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE, TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

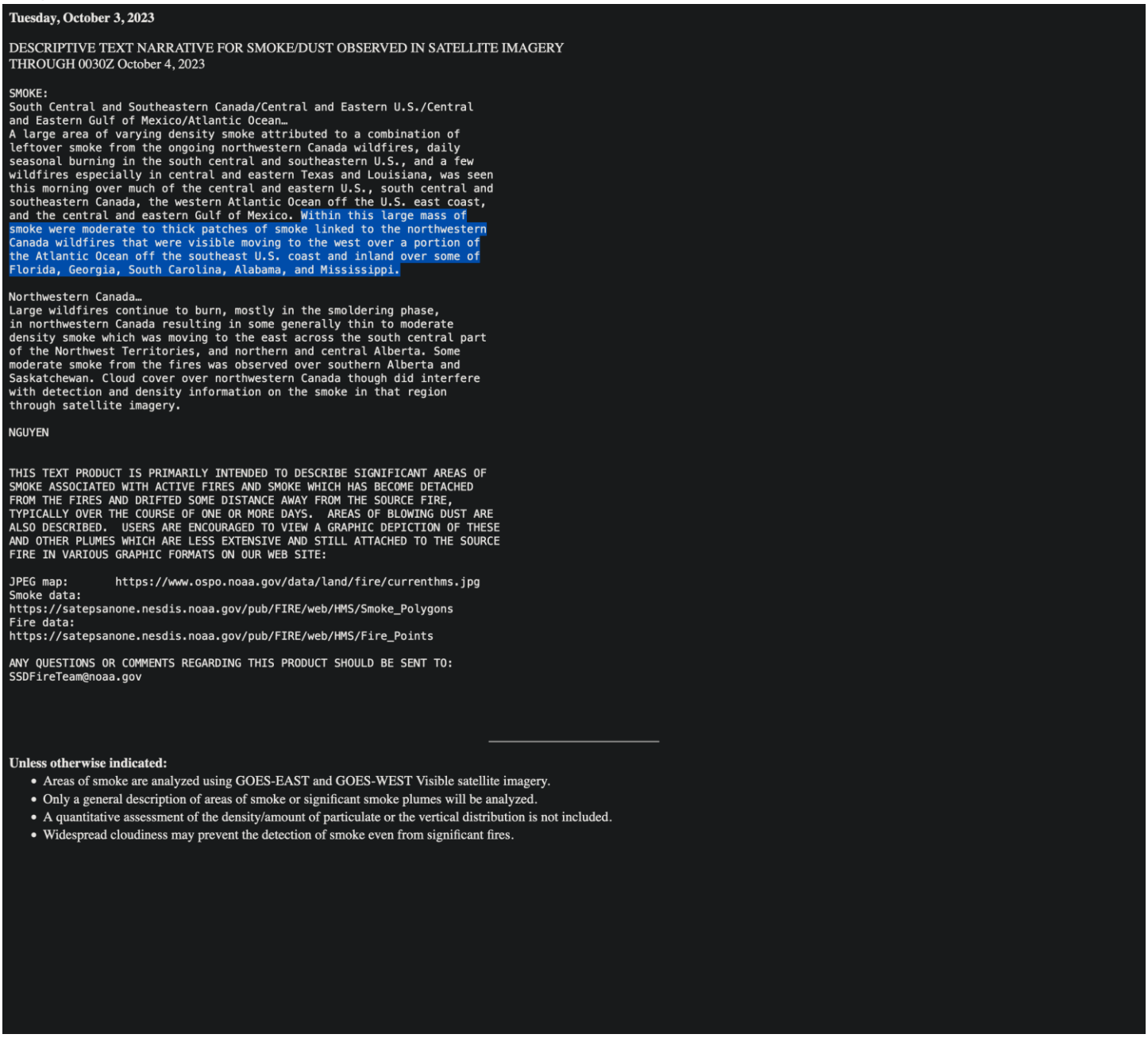
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

The 2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023J030257.html) narrative dated October 3rd, 2023, at 0146Z (corresponding to October 2nd, 2023, at 8:46 PM CDT) describes a large area of moderate to highly dense smoke from Canadian wildfires. The smoke extended from southeastern Canada southwestward, both off the United States east coast and inland over portions of the southeastern United States. This smoke transport was facilitated by the smoke being wedged between the previously mentioned synoptic systems, which helped carry it deep into the southern United States.



Tuesday, October 3, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 0030Z October 4, 2023

SMOKE:
South Central and Southeastern Canada/Central and Eastern U.S./Central
and Eastern Gulf of Mexico/Atlantic Ocean…
A large area of varying density smoke attributed to a combination of
leftover smoke from the ongoing northwestern Canada wildfires, daily
seasonal burning in the south central and southeastern U.S., and a few
wildfires especially in central and eastern Texas and Louisiana, was seen
this morning over much of the central and eastern U.S., south central and
southeastern Canada, the western Atlantic Ocean off the U.S. east coast,
and the central and eastern Gulf of Mexico. Within this large mass of
smoke were moderate to thick patches of smoke linked to the northwestern
Canada wildfires that were visible moving to the west over a portion of
the Atlantic Ocean off the southeast U.S. coast and inland over some of
Florida, Georgia, South Carolina, Alabama, and Mississippi.

Northwestern Canada…
Large wildfires continue to burn, mostly in the smoldering phase,
in northwestern Canada resulting in some generally thin to moderate
density smoke which was moving to the east across the south central part
of the Northwest Territories, and northern and central Alberta. Some
moderate smoke from the fires was observed over southern Alberta and
Saskatchewan. Cloud cover over northwestern Canada though did interfere
with detection and density information on the smoke in that region
through satellite imagery.

NGUYEN

THIS TEXT PRODUCT IS PRIMARILY INTENDED TO DESCRIBE SIGNIFICANT AREAS OF
SMOKE ASSOCIATED WITH ACTIVE FIRES AND SMOKE WHICH HAS BECOME DETACHED
FROM THE FIRES AND DRIFTED SOME DISTANCE AWAY FROM THE SOURCE FIRE,
TYPICALLY OVER THE COURSE OF ONE OR MORE DAYS. AREAS OF BLOWING DUST ARE
ALSO DESCRIBED. USERS ARE ENCOURAGED TO VIEW A GRAPHIC DEPICTION OF THESE
AND OTHER PLUMES WHICH ARE LESS EXTENSIVE AND STILL ATTACHED TO THE SOURCE
FIRE IN VARIOUS GRAPHIC FORMATS ON OUR WEB SITE:

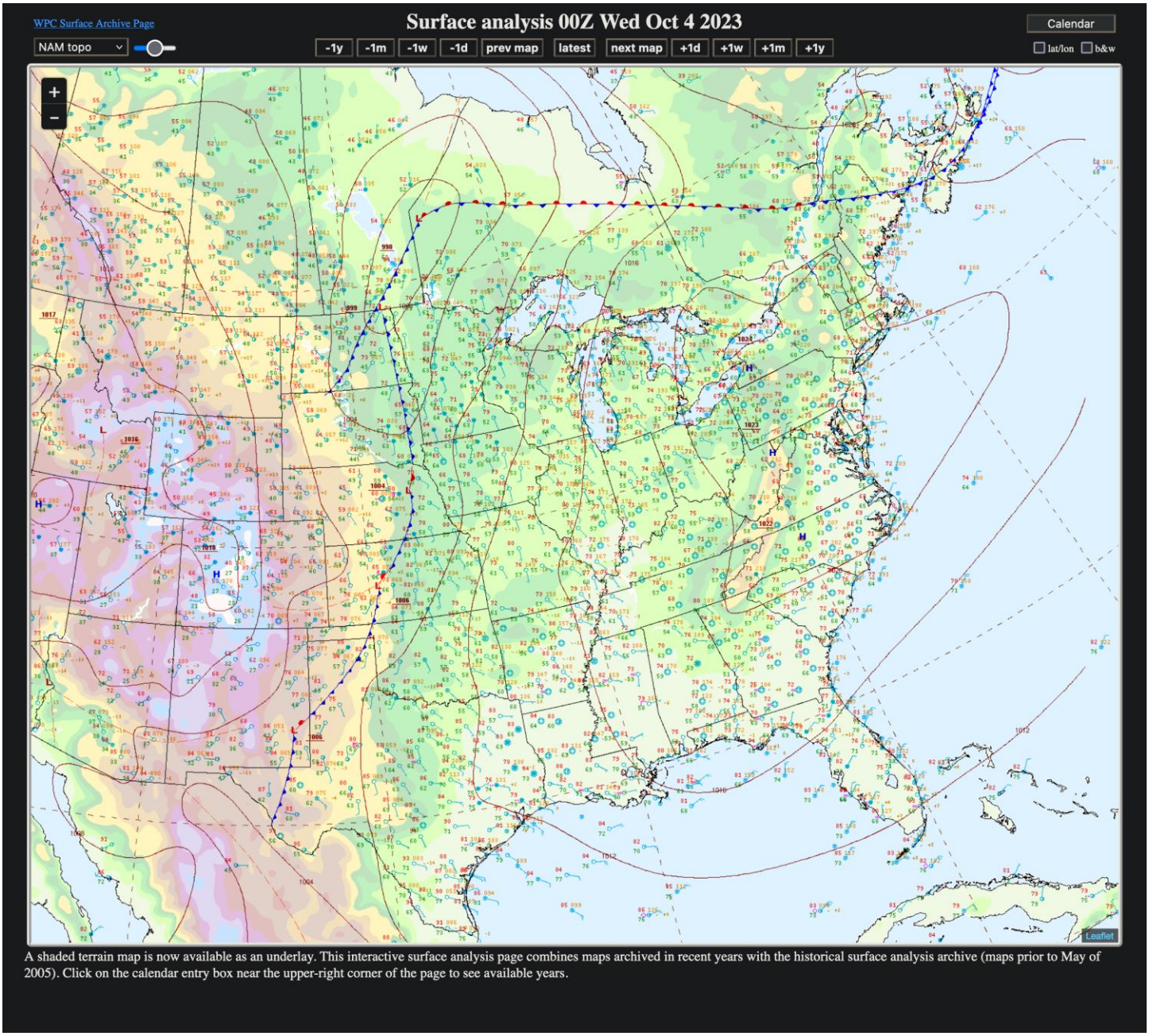
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

ANY QUESTIONS OR COMMENTS REGARDING THIS PRODUCT SHOULD BE SENT TO:
SSDFireTeam@noaa.gov

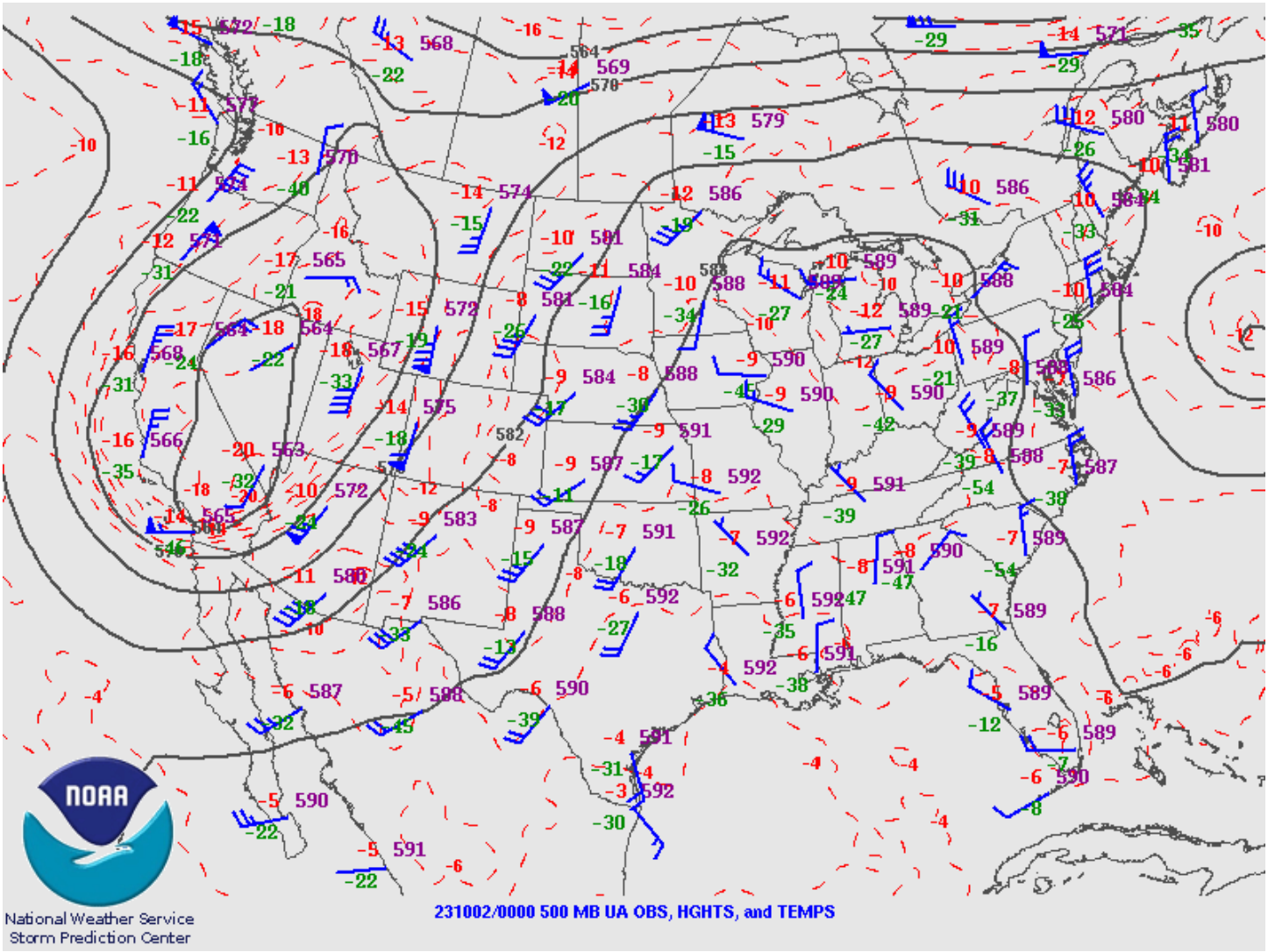
Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

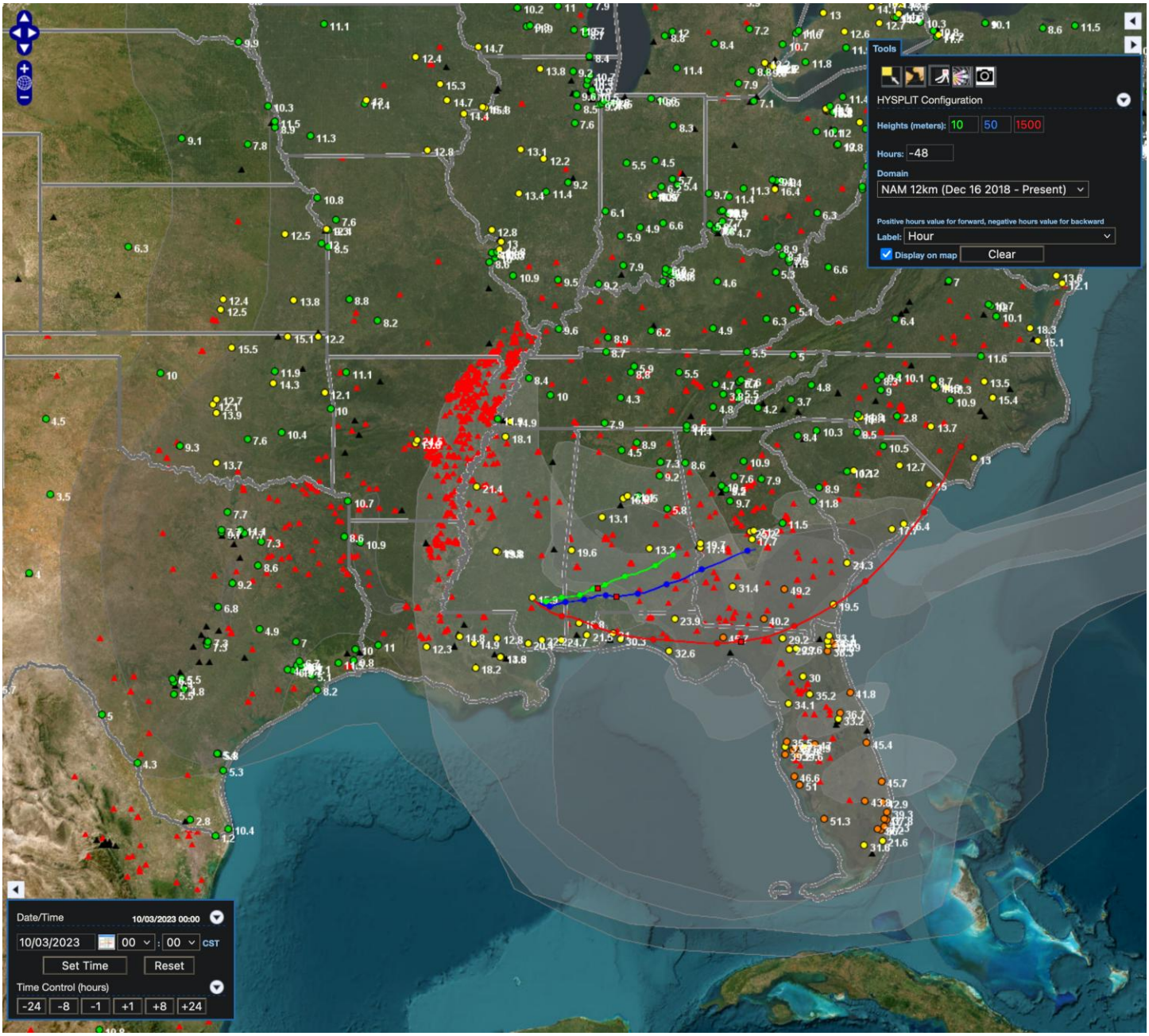
The 2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023J040054.html) narrative dated October 4th, 2023, at 0030Z (corresponding to October 3rd, 2023, at 7:30 PM CDT) describes smoke linked to Canadian wildfires visible over the Atlantic Ocean off the southeastern United States coast and its movement inland over the Gulf States.



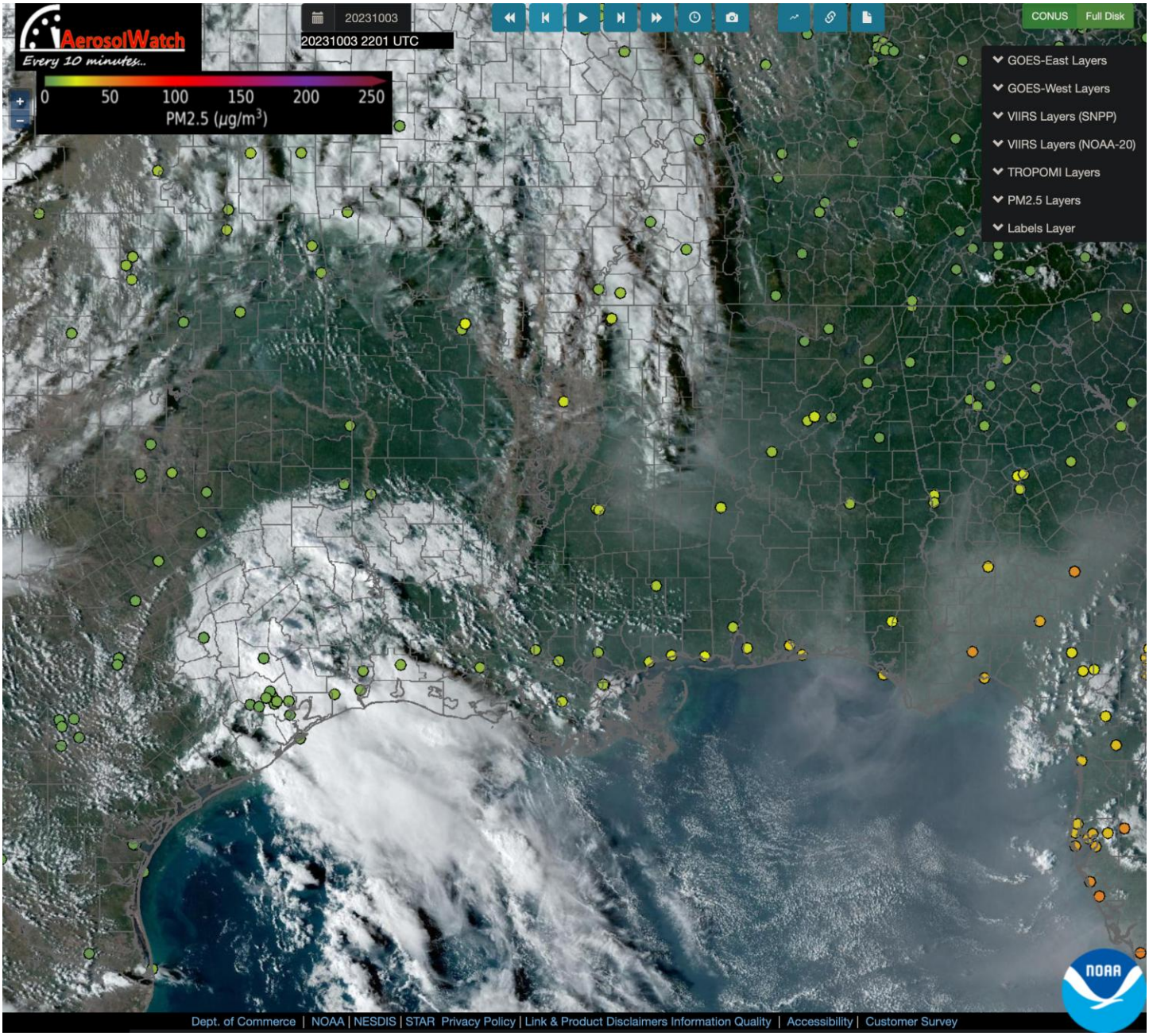
The 00z surface analysis (October 3rd, 2023, at 7PM CDT) shows expansive 1022mb High pressure parked over the Mid-Atlantic states where anticyclonic flow is allowing smoke from Canadian wildfires to funnel into the southeastern United States via northeasterly flow on the south side of the High, elevating PM2.5 values all across the Gulf States.



The 500 mb upper-level analysis from 00Z (October 1st, 2023, at 7 PM CDT) shows upper-level ridging over the Great Lakes with an upper-level low parked off the northeastern United States. These two synoptic systems helping drive smoke from Canadian wildfires down into the southeastern U.S elevating PM2.5 for the first few days in October.



The AirNowTech Navigator image from October 3rd, 2023, shows smoke from Canadian wildfires moving over Florida and westward into the Gulf States. Many locations in Florida recorded daily PM2.5 averages in the Unhealthy for Sensitive Groups (USG) range. The smoke's westward transport is demonstrated by 10m, 50m, and 1500m 48-hour back trajectories, which show air movement around the southern periphery of the previously mentioned surface high pressure system stationed over the Mid-Atlantic region elevating PM2.5 values at the Hattiesburg monitor.

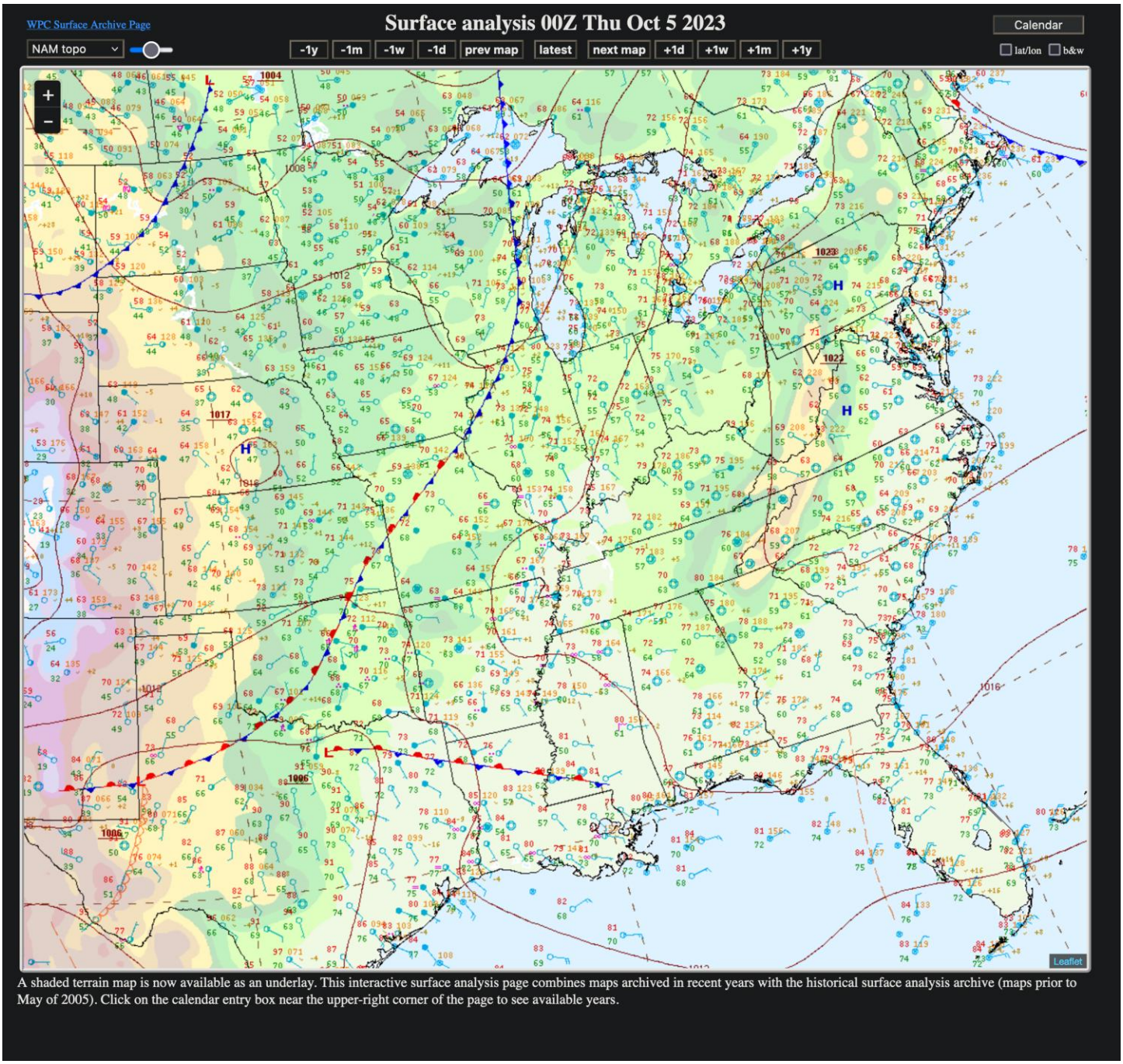


GOES East True Color imagery from October 3rd, 2023, at 2201 UTC shows dense smoke shield over Florida, Georgia, Alabama, moving westward into Mississippi. Smoke was dense at the surface, indicative PM2.5 values in Florida at the time in the USG range.

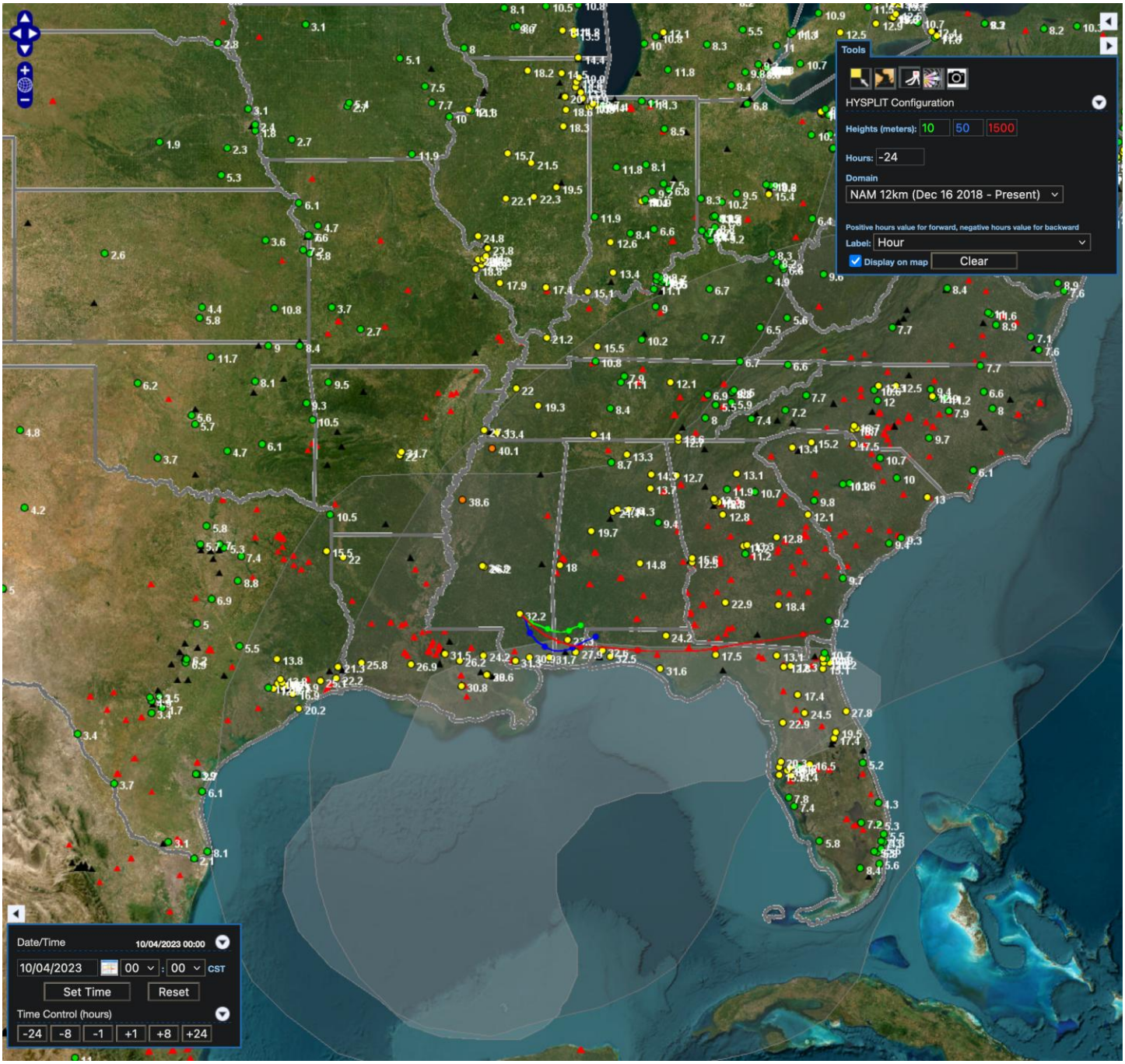
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	10/03/23	8.8	8.8	8.7	9.2	9	9.6	10.6	19.5	24.7	27.1	24.2	19.3	14.6	13.5	14.3	14	14.4	15.1	16.3	18.2	19.4	21	20.6	21.2	15.92	27.1

The Hattiesburg monitor's hourly PM2.5 values on October 3rd began in the single digits during the morning hours. As smoke moved westward from Florida into Mississippi, PM2.5 values increased throughout the afternoon, late evening, and overnight hours, resulting in a 24-hour daily average of 15.92 µg/m^3 for October 3rd.

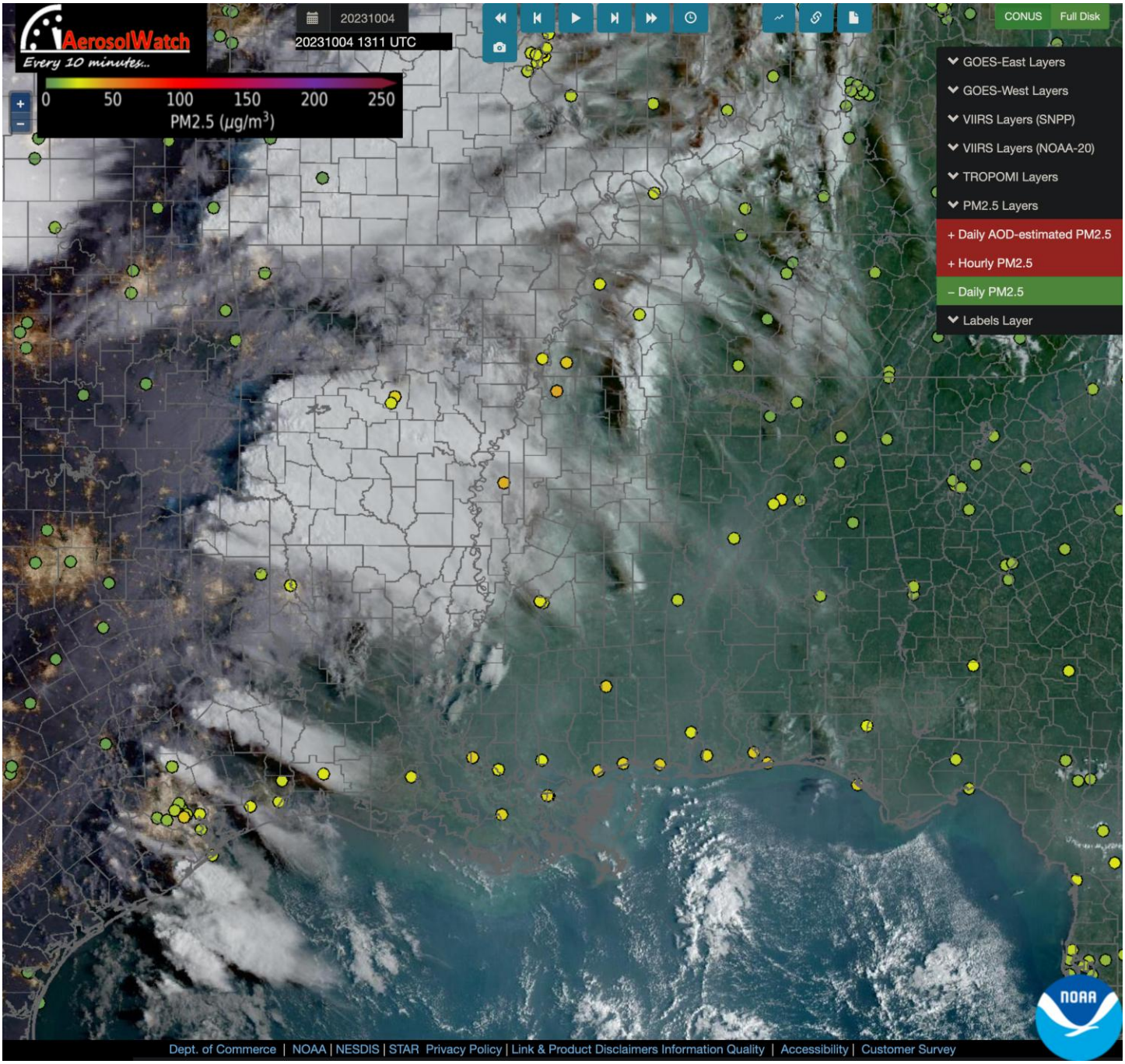
October 4th: October 4th experienced conditions similar to previous days as High pressure stationed across the Mid-Atlantic region continued to steer smoke from Quebec's Canadian wildfires. The smoke moved southward over the northeastern United States and Mid-Atlantic coastline, then across Florida and westward along the Gulf States, keeping PM2.5 values elevated well into the moderate category across several monitoring locations in the deep south.



The 00z surface analysis (October 4th, 2023, at 7PM CDT) shows continued expansive 1022mb High pressure parked over the Mid-Atlantic states where anticyclonic flow is allowing smoke from Canadian wildfires to funnel into the southeastern United States via northeasterly flow on the south side of the High, elevating PM2.5 values all across the Gulf States.



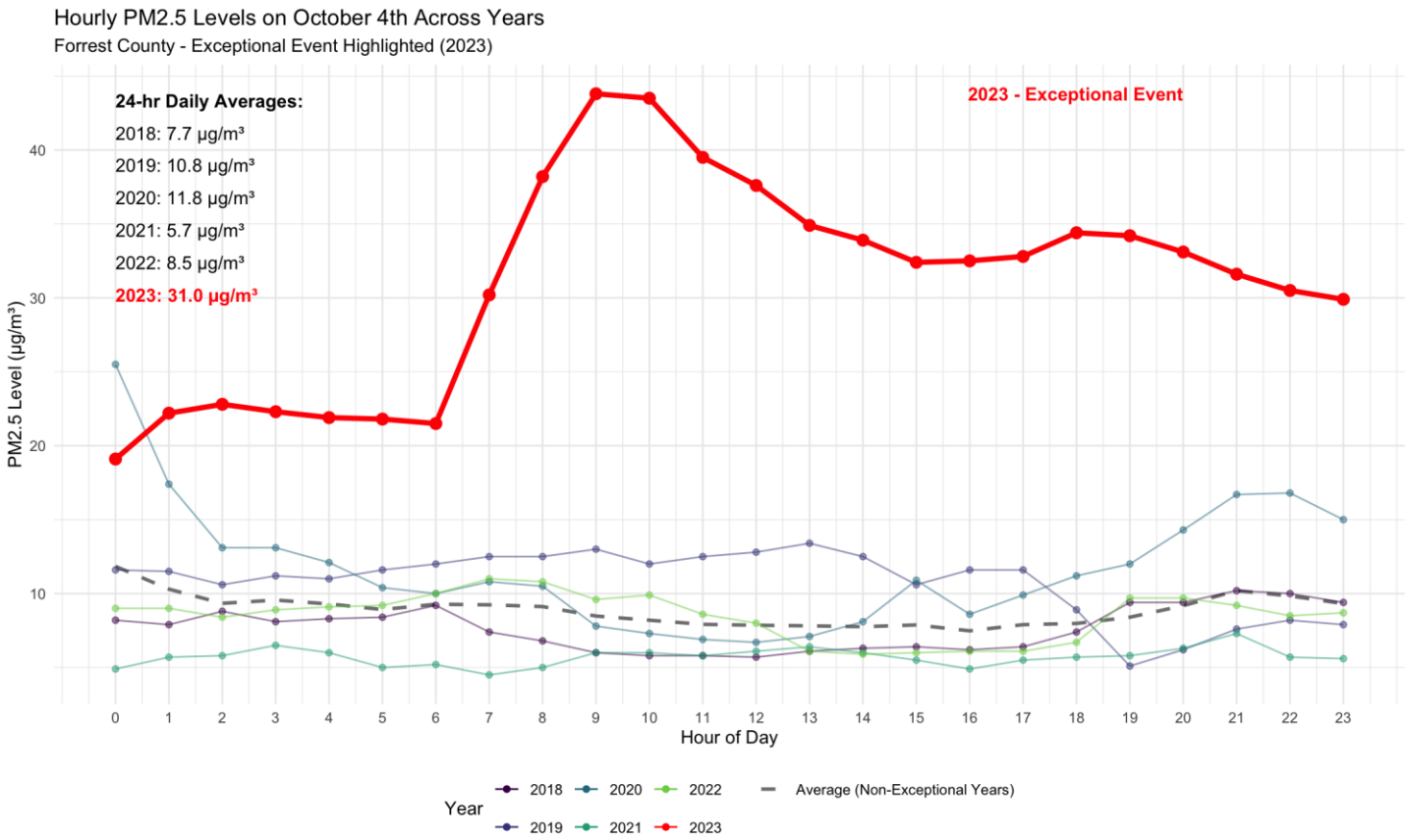
The AirNowTech Navigator image from October 4th, 2023, shows smoke from Canadian wildfires continuing to move over Florida and westward into the Gulf States. The smoke's continued westward transport is demonstrated by 10m, 50m, and 1500m 24-hour back trajectories, which show air movement around the southern periphery of the previously mentioned surface high pressure system stationed over the Mid-Atlantic region elevating PM2.5 values at the Hattiesburg monitor.



GOES East True Color imagery from October 4th, 2023, at 1311 UTC shows dense smoke shield from the Canadian wildfires over the panhandle of Florida, Alabama, moving westward into Mississippi, elevating PM2.5 values.

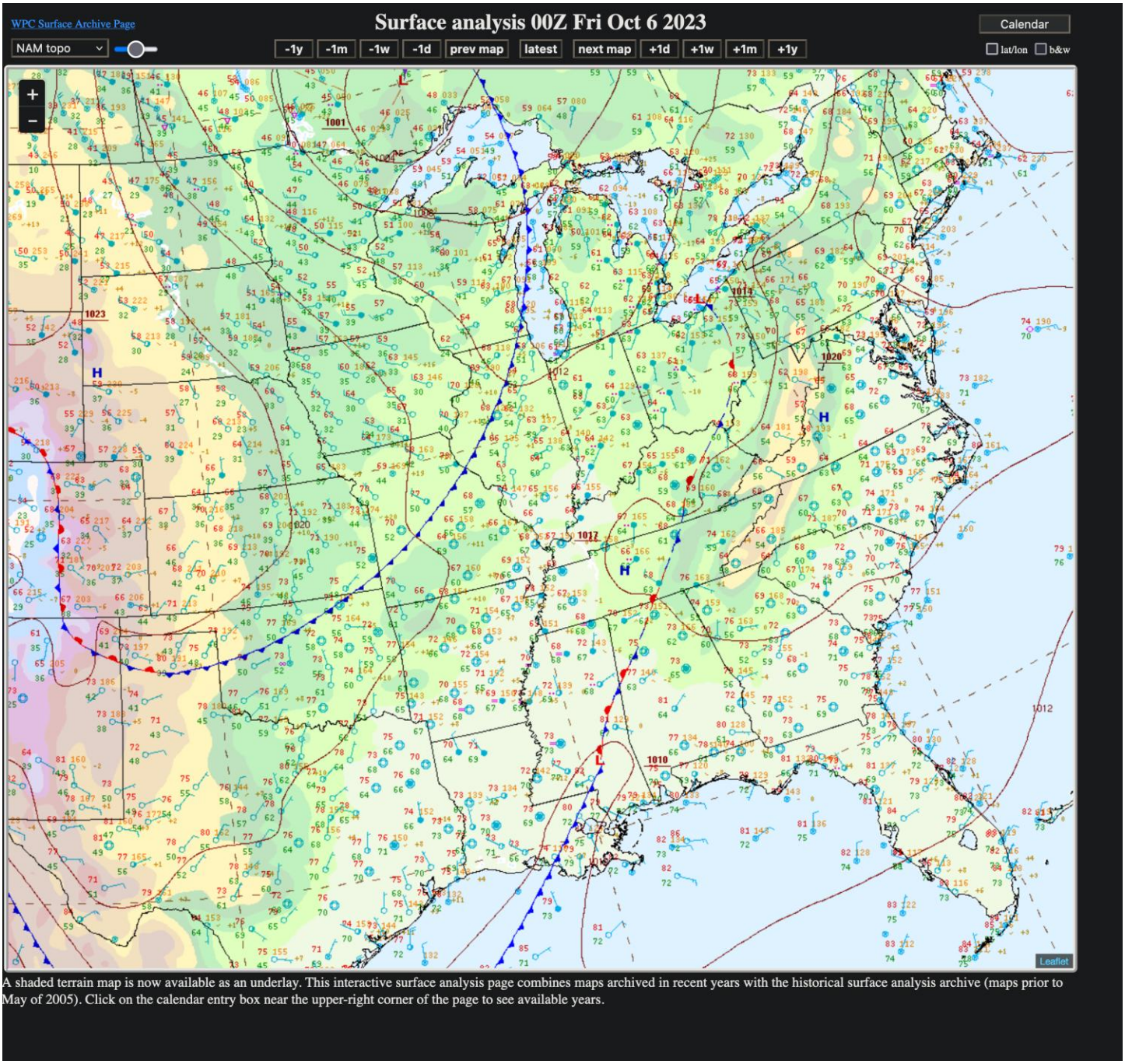
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	10/04/23	21	24.1	24.7	24.2	23.8	23.7	23.4	31.1	39.1	44.7	44.4	40.4	38.5	35.8	34.8	33.3	33.4	33.7	35.3	35.1	34	32.5	31.4	30.8	32.22	44.7

The Hattiesburg monitor's hourly PM2.5 values on October 4th began in the twenties and increased into the thirties, with a few hours reaching the forties throughout the remainder of the day. This increase occurred as smoke from Canadian wildfires moved into the area from the east, circulating around the periphery of the surface high pressure system stationed over the Mid-Atlantic. As a result, the Hattiesburg monitor recorded a daily average PM2.5 value of 32 µg/m^3.

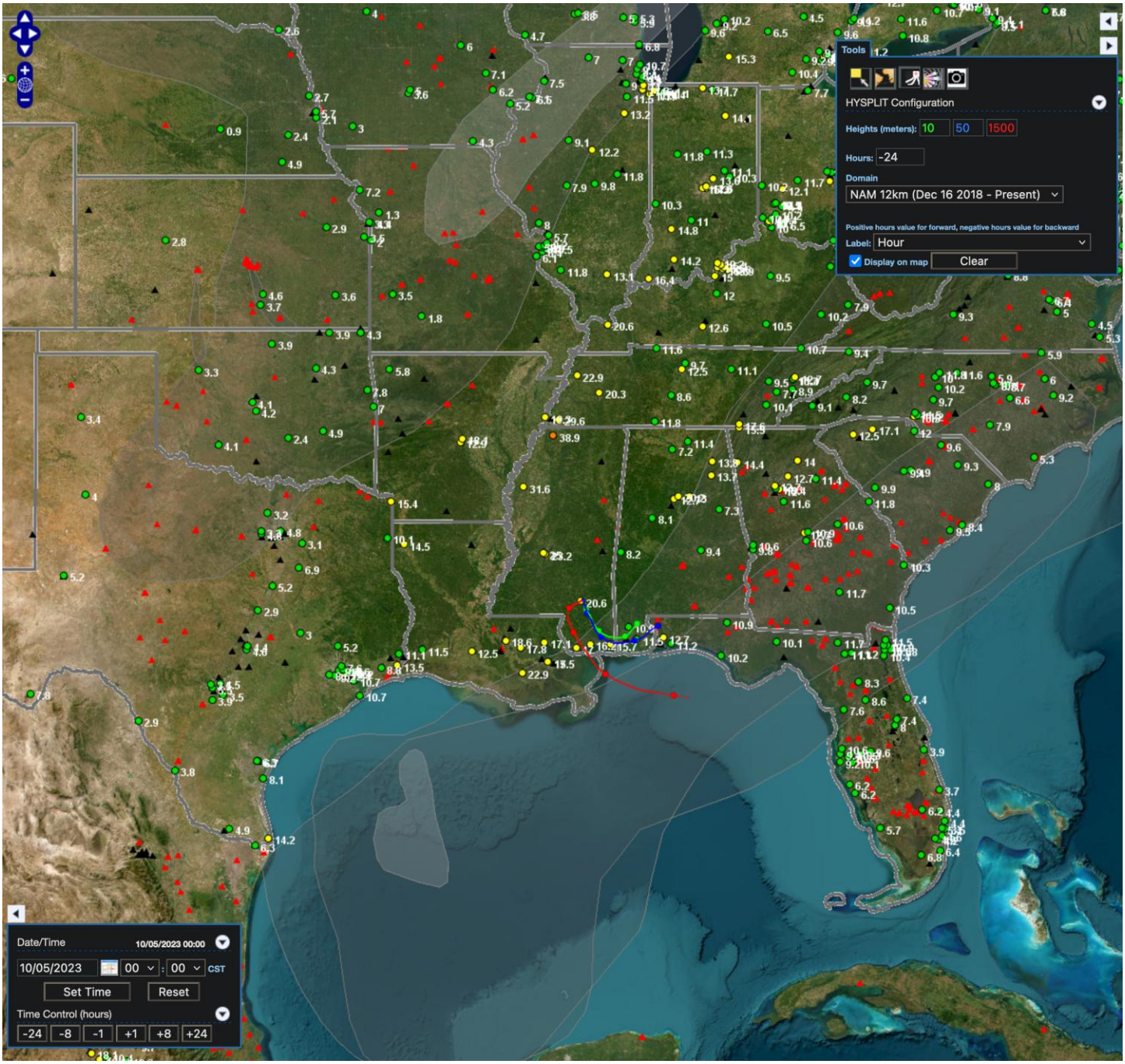


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations throughout October 4th, 2023, as smoke-laden air from Canadian wildfires impacted the Hattiesburg monitor.

October 5th: On October 5th, the Hattiesburg monitor remained under the influence of Canadian wildfire smoke for most of the day, keeping PM2.5 values elevated. During the evening hours, a cold front approached from the west, and its passage helped clean out the air mass, lowering PM2.5 values into the teens. However, since this improvement occurred late in the day, and values had remained in the twenties and thirties before the frontal passage, the daily PM2.5 average still reached 19.6 µg/m^3.



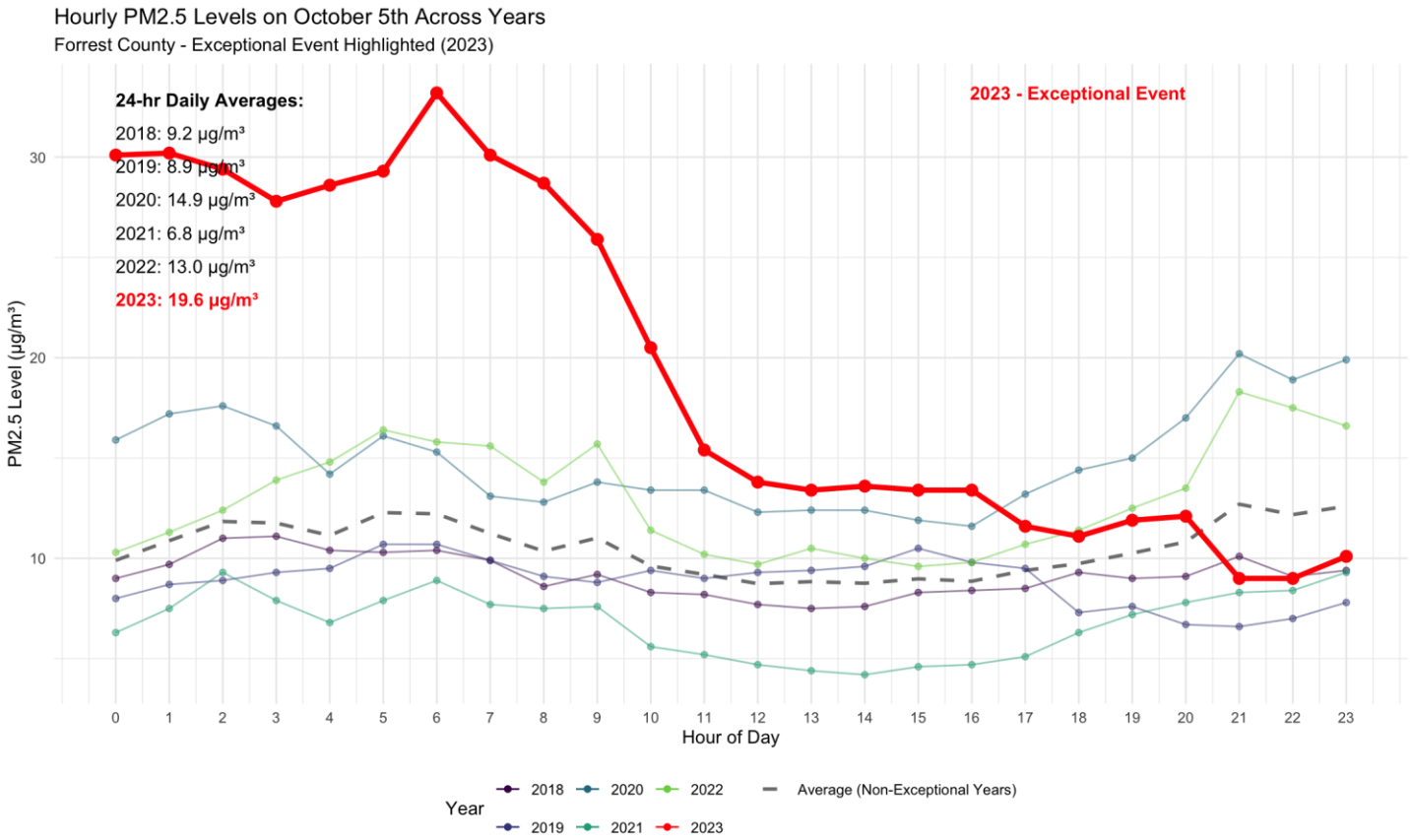
The 00Z surface analysis (October 5th, 2023, at 7 PM CDT) shows a frontal boundary moving through the area that helped clean out the air mass. However, prior to the frontal passage, the Hattiesburg monitor spent most of October 5th in a smoke-laden air mass from Canadian wildfires, which elevated PM2.5 values.



The AirNowTech Navigator image from October 5th, 2023, shows smoke from Canadian wildfires continuing to move over Florida and westward into the Gulf States. The smoke's continued westward transport is demonstrated by 10m, 50m, and 1500m 24-hour back trajectories, which show air movement around the southern periphery of the previously mentioned surface high pressure system stationed over the Mid-Atlantic region elevating PM2.5 values at the Hattiesburg monitor prior to frontal passage that occurred later in the evening on October 5th.

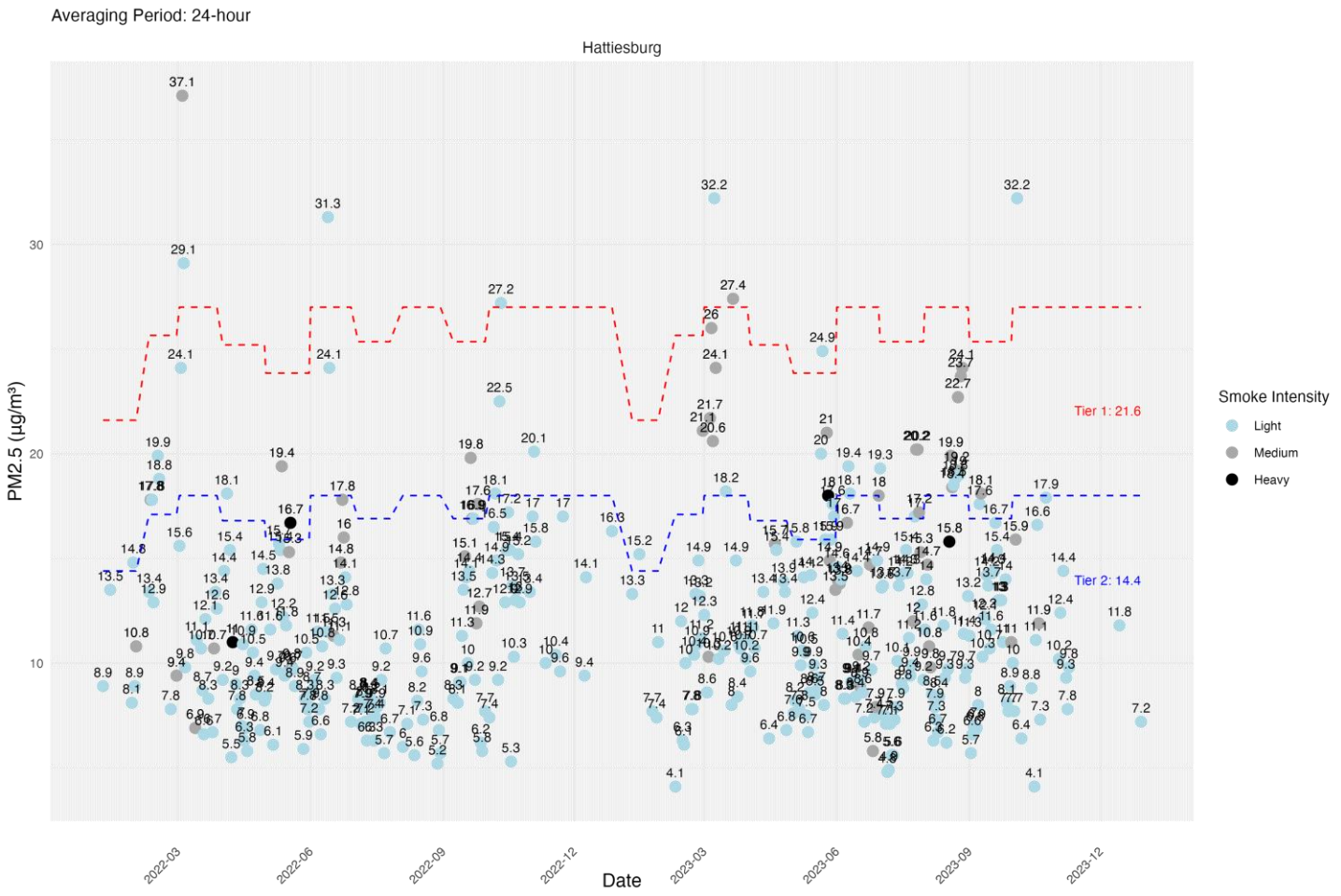
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Hattiesburg/280350004/PM2.5-88101/3	10/05/23	31	31.1	30.3	29.7	30.5	31.2	34.1	31	29.6	26.8	21.4	16.3	14.7	14.3	14.5	14.3	14.3	12.5	12	12.8	13	9.9	9.9	11	20.68	34.1

The Hattiesburg monitor's hourly PM2.5 values on October 5th began in the thirties, as the monitor started the day in a smoke-laden air mass from Canadian wildfires. As the morning progressed, PM2.5 values decreased into the twenties, then fell into the teens during the afternoon and evening hours due to the approaching and subsequent passage of a cold front. Despite the lower hourly values during the afternoon and evening, the elevated morning concentrations contributed to a daily average PM2.5 value of 20.68 µg/m^3 at the Hattiesburg monitor.



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past six years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations throughout October 5th, 2023, particularly during the morning hours when smoke-laden air from Canadian wildfires impacted the Hattiesburg monitor. Values decreased throughout the day due to the arrival and passage of a surface cold front during the evening hours.

Hattiesburg PM2.5 Monitoring Site: 28-035-0004 Parameter Code 88101, Method Code 736 Tiering Graph for 2022-2023



Appendix B

AQS AMP 350 Reports with I Flags for Hattiesburg PM2.5 Monitoring Site: 28-035-0004 Parameter Code 88101, Method Code 736

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: WDAY

RAW DATA REPORT

Report Request ID: 2243103 Report Code: AMP350 Dec. 4, 2024

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	28	035	0004	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
INCLUDE NULLS	YES
DAILY STATISTICS	MAXIMUM
UNITS	STANDARD
RAW DATA EVENTS	INCLUDE EVENTS
MERGE PDF FILES	YES
AGENCY ROLE	PQAO

SORT ORDER

Order	Column
1	STATE CODE
2	COUNTY_CODE
3	SITE_ID
4	PARAMETER_CODE
5	POC

DATE CRITERIA

Start Date	End Date
2022 01 01	2023 12 31

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2024
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: JANUARY 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	12.4	8.2	6.6	5.7	5.4	5.4	5.1	5.2	5.3	5.7	6.0	5.9	5.5	5.8	6.5	6.7	7.1	7.5	9.8	8.4	8.7	8.8	9.3	9.5	24	12.4
2	10.4	10.0	6.6	8.7	8.1	5.9	5.4	4.7	6.3	6.7	5.4	2.7	1.1	1.6	2.1	1.4	.8	.7	1.4	3.3	3.3	5.2	6.8	6.2	24	10.4
3	4.4	4.0	4.5	5.0	4.5	3.7	3.3	3.3	3.5	3.7	3.3	AZ	AZ	3.1	3.1	2.6	2.4	2.8	3.2	4.1	5.9	6.0	7.3	7.3	22	7.3
4	8.2	9.9	11.0	9.5	9.1	9.2	9.9	9.6	9.9	9.0	11.1	11.6	10.3	8.2	6.2	5.4	5.7	10.3	9.6	8.2	9.5	9.7	11.2	9.4	24	11.6
5	8.8	8.5	9.1	8.7	10.3	17.4	14.7	10.9	11.6	13.8	6.4	AZ	3.8	4.0	4.0	4.3	4.6	24.5	20.1	24.4	17.5	11.4	9.5	9.3	23	24.5
6	7.6	7.7	7.4	7.6	7.9	8.6	9.0	9.1	5.1	4.1	3.8	3.6	4.2	5.4	7.8	6.4	6.5	6.5	5.9	5.4	3.7	2.9	3.6	3.9	24	9.1
7	3.1	2.2	2.4	2.8	3.3	4.4	4.8	5.0	5.7	5.9	5.9	5.5	4.8	4.4	4.1	4.1	4.0	5.9	10.4	8.3	7.9	7.4	6.5	7.7	24	10.4
8	7.5	7.0	6.4	5.4	5.0	5.1	5.4	5.9	6.8	7.4	6.3	5.6	5.3	5.1	5.0	5.8	6.6	7.2	9.6	9.4	10.0	11.0	12.4	15.6	24	15.6
9	13.1	10.9	10.0	11.3	9.9	9.8	12.2	10.4	10.2	10.4	7.5	8.2	9.7	9.0	10.4	11.2	9.5	5.4	5.7	7.4	6.6	4.2	2.3	1.4	24	13.1
10	1.4	1.4	3.5	4.1	3.7	3.7	3.9	4.3	4.1	3.7	3.3	2.8	2.2	1.4	1.5	1.3	1.2	1.3	3.2	3.0	4.1	3.3	5.0	4.8	24	5.0
11	3.4	4.6	4.2	3.2	3.2	3.1	3.5	4.1	4.4	3.1	2.3	1.8	1.5	1.4	1.5	1.8	2.6	2.8	3.5	4.6	7.7	17.1	13.5	15.0	24	17.1
12	8.5	7.3	9.2	6.7	6.7	7.0	7.2	7.5	7.3	6.7	4.8	3.5	3.4	3.3	3.7	4.1	3.6	4.4	16.7	17.1	14.3	14.3	12.5	11.6	24	17.1
13	15.9	16.4	16.8	16.2	16.3	17.2	17.3	17.7	12.7	7.5	7.0	6.3	5.4	5.8	5.8	6.6	5.8	5.2	7.4	9.9	14.9	16.3	17.6	16.3	24	17.7
14	14.7	14.0	20.7	19.8	19.3	19.3	21.1	23.3	18.6	21.5	8.2	3.7	3.0	2.6	2.6	2.5	2.8	4.3	6.7	8.6	11.6	10.4	10.6	10.2	24	23.3
15	12.8	14.2	16.3	18.0	18.9	20.6	22.1	16.4	14.2	10.9	10.5	10.4	10.8	13.9	14.3	12.4	6.7	5.7	5.0	5.1	5.5	4.5	3.8	4.1	24	22.1
16	7.2	8.6	7.5	6.9	6.4	5.5	4.9	4.3	3.3	2.0	1.5	2.0	3.0	4.0	5.0	6.4	7.1	6.7	6.4	6.8	10.7	11.3	14.9	8.9	24	14.9
17	6.8	6.3	6.1	6.3	6.3	5.8	5.8	5.9	6.1	6.2	5.5	4.5	4.0	3.4	3.2	3.0	3.0	3.3	4.5	23.9	25.5	15.0	14.0	18.5	24	25.5
18	15.9	14.3	16.5	12.0	10.6	9.7	10.1	10.4	8.6	7.0	5.4	4.0	2.7	2.7	3.2	4.3	9.5	14.8	11.9	7.6	7.3	5.5	5.4	6.5	24	16.5
19	6.0	6.3	6.0	6.2	5.8	7.2	8.5	10.8	7.7	5.8	4.6	3.9	AZ	5.4	4.0	3.7	3.9	4.5	6.3	5.2	4.8	5.0	5.0	4.6	23	10.8
20	4.6	4.2	2.6	2.6	2.6	2.9	1.5	.8	.6	1.0	2.1	3.4	4.8	5.7	7.2	7.0	6.4	4.9	4.1	4.5	4.4	4.4	4.5	4.5	24	7.2
21	4.7	5.9	6.3	6.7	6.6	7.1	6.8	6.7	7.3	8.1	10.2	10.9	11.3	11.9	8.9	7.9	7.2	6.5	6.7	5.9	6.2	5.2	5.1	5.2	24	11.9
22	5.5	5.4	5.9	6.5	7.2	8.1	8.6	9.8	10.0	8.4	7.7	7.5	6.8	5.9	5.1	4.6	4.6	5.1	6.5	7.0	7.4	10.2	12.4	12.5	24	12.5
23	11.8	11.6	11.0	11.5	11.0	12.3	12.8	14.7	15.5	17.7	12.6	7.2	6.6	6.4	6.4	9.5	7.5	6.3	9.9	14.5	12.9	12.7	15.5	21.9	24	21.9
24	19.8	21.9	20.1	22.7	29.1	25.4	24.6	30.2	217.5	18.7	8.1	9.5	9.6	7.4	7.4	7.3	8.7	10.4	8.6	9.2	12.7	17.5	21.0	19.5	24	217.5
25	24.3	27.2	22.4	24.9	24.3	21.2	22.7	25.3	22.7	18.8	13.2	11.2	9.1	6.0	6.0	6.4	6.7	6.6	8.2	9.8	9.7	10.4	12.0	7.9	24	27.2
26	6.4	6.3	6.2	6.3	6.4	6.1	6.0	5.9	6.3	6.4	5.4	4.6	4.3	4.1	3.6	3.3	3.3	3.6	4.0	4.1	4.4	4.5	5.2	6.0	24	6.4
27	8.2	7.0	6.7	6.9	7.2	6.8	7.2	8.5	9.8	11.2	12.2	11.9	9.7	7.2	7.0	6.8	6.7	9.6	9.8	21.9	29.8	9.7	10.4	11.5	24	29.8
28	8.9	7.3	6.8	6.7	6.6	7.3	8.0	8.5	10.1	11.2	11.7	8.5	7.9	7.1	5.9	4.8	3.9	2.9	2.9	3.7	4.2	4.0	4.5	7.0	24	11.7
29	4.6	4.1	3.2	3.8	4.6	4.5	4.1	4.1	4.7	4.9	4.4	4.6	4.3	4.0	5.5	9.8	38.6	29.4	46.5	37.9	27.7	33.3	22.5	12.2	24	46.5
30	10.3	11.1	10.1	9.1	7.7	6.4	5.5	6.3	6.2	4.8	4.2	3.7	3.6	3.5	3.8	4.2	5.0	5.0	6.6	8.6	9.4	20.3	14.4	8.6	24	20.3
31	8.2	10.7	11.0	11.2	10.1	10.1	10.2	11.8	17.5	16.9	AZ	AZ	9.1	7.9	3.4	3.2	3.0	3.3	5.4	9.4	6.3	5.1	8.0	20.3	22	20.3
NO.:	31	31	31	31	31	31	31	31	31	31	30	28	29	31	31	31	31	31	31	31	31	31	31	31		
MAX:	24.3	27.2	22.4	24.9	29.1	25.4	24.6	30.2	217.5	21.5	13.2	11.9	11.3	13.9	14.3	12.4	38.6	29.4	46.5	37.9	29.8	33.3	22.5	21.9		
AVG:	9.21	9.18	9.13	9.13	9.16	9.25	9.43	9.72	15.47	8.68	6.69	6.04	5.79	5.41	5.30	5.45	6.29	7.01	8.60	9.91	10.15	9.89	9.89	9.93		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 8.55 MONTHLY MAX: 217.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: FEBRUARY 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	29.0	29.3	28.6	26.6	22.2	22.6	18.3	10.6	6.4	4.9	4.2	3.9	4.1	4.5	5.0	4.1	4.2	4.7	5.4	5.4	5.4	5.5	5.5	5.4	24	29.3
2	5.5	6.1	5.9	5.4	5.4	5.0	6.3	8.6	7.7	6.2	5.1	3.5	2.6	1.9	2.3	2.9	3.3	4.0	4.8	5.4	5.1	5.0	4.6	6.7	24	8.6
3	6.7	3.9	3.4	3.4	3.2	3.3	3.7	5.0	6.2	6.7	6.2	5.5	2.6	1.8	2.7	2.4	2.3	2.0	2.4	2.4	1.5	1.5	2.8	4.2	24	6.7
4	4.5	3.5	2.6	1.7	7.4	11.0	11.8	11.6	9.5	8.6	8.3	7.9	7.4	7.8	7.9	7.6	7.6	8.2	8.9	8.9	7.6	8.4	8.1	8.2	24	11.8
5	7.2	7.5	8.0	7.7	7.4	7.5	7.8	7.8	6.7	5.0	4.5	4.3	4.1	4.1	4.0	3.8	3.5	3.3	7.6	8.9	7.8	15.1	14.3	10.2	24	15.1
6	10.0	12.6	17.5	12.7	8.4	7.6	7.2	7.3	7.7	7.2	6.3	4.9	4.0	4.1	3.9	3.5	3.4	3.7	10.2	35.8	44.4	22.9	22.8	16.5	24	44.4
7	12.5	11.3	11.1	10.8	9.9	8.9	8.5	7.9	8.0	8.0	8.6	8.1	6.5	5.3	5.2	7.2	6.0	12.4	17.6	14.4	6.0	5.0	5.0	5.3	24	17.6
8	17.6	35.7	13.5	8.2	7.1	7.2	8.3	9.4	10.9	10.2	8.4	4.3	3.3	3.1	2.7	2.6	3.2	4.4	6.0	12.8	14.1	14.4	14.5	12.7	24	35.7
9	9.0	11.3	12.0	8.2	9.6	11.0	11.9	14.6	24.0	27.6	8.0	4.4	4.3	4.2	5.5	5.9	5.4	7.2	15.9	18.2	11.9	15.4	17.6	17.1	24	27.6
10	17.4	16.3	17.8	17.7	15.1	15.3	16.9	22.0	38.0	22.7	12.0	10.0	11.1	11.5	11.9	12.9	11.8	9.4	20.8	18.3	13.9	13.0	14.4	16.7	24	38.0
11	17.0	23.6	23.4	22.0	20.4	20.6	20.2	22.4	22.7	26.8	29.1	10.7	8.4	4.7	5.0	4.9	6.5	6.8	20.8	10.3	12.7	13.7	15.0	18.8	24	29.1
12	12.8	10.3	12.4	11.6	8.1	8.2	11.0	12.9	14.1	14.0	15.1	11.6	10.4	11.8	14.6	16.1	15.4	10.5	9.1	8.9	10.3	8.1	6.2	5.8	24	16.1
13	9.8	9.7	9.4	8.6	8.1	9.1	7.9	6.3	5.3	4.6	4.0	3.7	3.5	3.4	3.2	3.4	3.6	3.9	5.7	8.2	12.9	15.6	18.6	16.2	24	18.6
14	15.2	15.6	14.8	14.3	14.8	15.5	15.8	22.0	17.3	8.7	4.8	5.4	6.0	7.0	8.5	10.1	11.0	10.8	13.6	19.7	18.1	18.5	23.2	20.9	24	23.2
15	20.1IM	19.3IM	19.6IM	22.4IM	21.1IM	21.6IM	29.3IM	27.1IM	27.0IM	25.6IM	22.5IM	11.3IM	AZ	AZ	9.8IM	9.0IM	7.0IM	7.5IM	9.6IM	13.0IM	16.4IM	20.7IM	21.8IM	22.6IM	22	29.3
16	21.9IM	19.8IM	20.3IM	28.9IM	27.9IM	29.6IM	59.5IM	33.9IM	30.2IM	21.3IM	17.2IM	14.5IM	13.7IM	7.2IM	7.1IM	6.6IM	5.9IM	6.3IM	6.5IM	6.2IM	6.6IM	6.5IM	6.6IM	7.4IM	24	59.5
17	8.1	8.2	6.7	4.7	3.0	2.7	4.3	8.2	9.5	8.9	7.8	8.1	8.3	8.7	7.2	5.7	6.9	7.5	6.5	6.4	6.0	7.8	7.0	4.5	24	9.5
18	4.6	3.7	3.3	3.5	3.7	3.9	5.5	7.0	7.2	5.0	3.6	3.8	4.3	5.3	5.9	5.5	5.7	6.0	6.7	7.6	8.6	8.6	9.3	9.0	24	9.3
19	9.3	9.7	10.0	9.7	9.4	8.7	8.1	8.1	7.2	5.9	4.5	3.0	3.0	2.8	2.7	2.8	2.9	3.1	3.7	8.6	10.4	18.5	21.4	19.0	24	21.4
20	22.9	18.4	21.2	28.7	30.9	33.1	33.1	27.6	12.7	9.3	8.8	7.6	5.6	5.7	6.7	6.3	5.9	6.9	7.6	13.6	11.0	9.8	7.6	7.5	24	33.1
21	7.2	6.9	6.9	7.1	8.5	11.1	9.9	9.8	8.5	7.5	8.0	8.0	8.2	8.1	7.0	6.6	6.5	6.8	7.1	6.9	7.0	7.3	7.6	7.1	24	11.1
22	6.7	6.4	6.1	6.0	5.8	5.7	5.0	5.4	5.3	5.5	6.1	5.6	6.8	7.5	8.1	8.4	8.5	8.8	9.2	9.2	9.6	10.1	9.9	9.5	24	10.1
23	7.7	6.7	5.9	5.6	5.0	5.0	5.0	5.6	6.0	5.6	5.8	6.0	6.8	7.7	7.4	7.6	8.6	7.9	8.2	8.4	8.9	8.8	8.3	7.6	24	8.9
24	7.3	7.8	8.7	7.1	7.1	5.4	4.6	5.6	5.9	5.6	5.9	5.5	5.9	6.6	6.9	9.8	9.1	7.0	6.7	7.1	6.9	6.3	5.8	6.0	24	9.8
25	6.2	6.3	2.2	.6	.7	.6	.5	1.1	1.1	1.8	2.3	2.8	2.9	4.6	3.2	3.2	3.4	3.6	4.6	4.1	3.7	3.7	3.7	3.7	24	6.3
26	4.0	4.0	3.9	4.1	4.7	5.8	6.5	6.3	6.3	5.9	5.8	6.1	6.3	6.7	6.3	6.4	7.0	7.4	10.3	10.8	11.2	10.2	9.7	9.5	24	11.2
27	10.0	9.4	9.8	10.6	9.8	9.9	7.6	5.3	5.0	4.2	3.3	2.8	2.4	2.0	2.7	2.7	2.4	1.6	2.6	4.2	4.7	5.9	6.2	4.7	24	10.6
28	5.9	7.7	10.4	11.8	11.8	11.9	12.5	12.2	11.0	7.6	5.8	4.7	4.0	3.5	3.5	3.4	3.4	3.8	4.7	7.4	8.1	7.4	10.7	17.7	24	17.7
29																									0	
30																									0	
31																									0	
NO.:	28	28	28	28	28	28	28	28	28	28	28	28	27	27	28	28	28	28	28	28	28	28	28	28		
MAX:	29.0	35.7	28.6	28.9	30.9	33.1	59.5	33.9	38.0	27.6	29.1	14.5	13.7	11.8	14.6	16.1	15.4	12.4	20.8	35.8	44.4	22.9	23.2	22.6		
AVG:	11.29	11.82	11.26	11.06	10.59	10.99	12.39	11.84	11.69	10.03	8.29	6.36	5.80	5.61	5.96	6.12	6.09	6.27	8.67	10.40	10.39	10.49	11.01	10.73		

MONTHLY OBSERVATIONS: 670 MONTHLY MEAN: 9.39 MONTHLY MAX: 59.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: MARCH 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	24.8	23.0	21.8	16.8	16.6	12.3	11.5	10.7	8.6	7.8	4.8	4.0	3.4	3.5	3.1	2.8	3.5	4.8	4.8	9.6	14.9	12.2	14.3	9.6	24	24.8
2	12.4	11.9	11.8	13.1	12.8	13.7	14.0	17.3	18.5	13.4	10.3	6.0	6.1	5.8	5.5	5.4	7.6	9.9	21.3	22.1	28.7	23.7	23.3	22.2	24	28.7
3	22.3IM	21.5IM	23.6IM	37.3IM	27.8IM	26.2IM	23.8IM	26.5IM	27.3IM	20.0IM	15.8IM	AZ	AZ	10.8IM	10.1IM	9.6IM	10.1IM	13.8IM	22.3IM	29.5IM	28.1IM	34.8IM	26.9IM	27.2IM	22	37.3
4	29.0IM	31.1IM	47.0IM	58.9IM	92.2IM	84.8IM	75.2IM	39.8IM	46.9IM	52.2IM	38.8IM	30.7IM	21.0IM	19.1IM	17.4IM	12.8IM	12.5IM	14.7IM	17.1IM	20.1IM	22.8IM	17.3IM	22.8IM	28.9IM	24	92.2
5	34.2IM	71.6IM	84.8IM	82.5IM	64.6IM	48.2IM	37.0IM	32.6IM	35.2IM	27.9IM	10.8IM	7.7IM	7.4IM	6.8IM	7.2IM	7.7IM	6.8IM	7.3IM	8.0IM	8.5IM	8.5IM	18.3IM	17.8IM	23.6IM	24	84.8
6	22.6	15.9	8.9	8.4	9.2	8.5	8.5	7.9	7.8	8.3	6.8	6.0	5.9	5.3	5.9	6.4	5.3	5.7	6.8	7.6	8.4	9.2	10.2	10.0	24	22.6
7	10.0	11.6	12.0	9.9	9.7	10.1	9.6	8.9	9.6	9.3	8.0	8.0	6.9	5.1	4.6	5.4	4.9	5.0	4.8	4.6	4.2	4.1	3.8	4.3	24	12.0
8	4.5	4.5	3.6	3.4	3.2	3.1	3.0	3.3	4.0	4.0	4.1	4.8	6.3	6.8	7.2	5.4	3.8	3.3	2.8	3.4	3.7	3.6	3.3	3.1	24	7.2
9	2.0	2.5	2.6	2.4	2.8	2.5	1.2	1.2	1.5	1.9	2.2	2.5	2.9	3.0	3.3	3.1	3.0	2.8	3.3	3.2	3.7	4.3	4.1	4.3	24	4.3
10	3.8	4.2	7.7	7.6	9.4	5.2	6.0	6.0	4.8	4.0	BL	3.9	4.1	4.1	8.4	12.0	6.4	8.2	9.7	14.0	16.1	17.0	18.5	16.8	23	18.5
11	17.3	16.6	13.2	17.2	33.2	13.7	11.8	13.1	12.1	11.6	8.0	4.5	4.1	4.4	4.4	5.9	7.2	7.2	7.8	8.3	7.5	8.6	8.9	6.7	24	33.2
12	5.4	1.4	1.2	1.4	2.7	4.2	4.4	4.0	3.2	2.9	2.8	2.5	2.1	1.9	1.6	1.4	1.5	1.7	2.1	2.0	2.2	2.4	2.6	2.7	24	5.4
13	3.1	3.3	3.7	4.8	4.9	4.1	4.3	4.7	3.0	2.6	2.4	2.0	1.9	1.9	2.4	2.2	4.0	8.4	9.2	26.9	18.3	8.3	7.0	7.2	24	26.9
14	7.4	9.8	11.0	11.7	11.4	16.4	31.6	19.3	8.4	5.9	3.9	3.3	3.3	8.0	5.2	7.5	9.2	5.8	5.3	9.0	10.5	8.5	6.9	10.9	24	31.6
15	9.1	9.3	7.8	7.4	6.7	6.1	4.5	2.7	1.6	2.4	3.0	2.8	3.3	3.7	3.7	3.9	3.7	3.9	3.7	3.9	4.2	4.3	5.0	6.4	24	9.3
16	6.7	6.9	6.4	6.3	6.1	6.1	6.0	5.5	3.9	3.3	3.7	4.0	4.6	5.4	4.7	4.6	4.1	3.7	4.4	8.0	16.3	9.7	11.2	12.9	24	16.3
17	9.2	8.6	11.5	9.4	8.6	10.8	10.7	9.1	14.9	AZ	AZ	AZ	6.7	6.6	7.5	7.4	9.9	10.2	7.9	7.4	6.8	9.6	8.5	10.6	21	14.9
18	10.4	7.5	6.5	6.1	6.2	3.9	3.7	4.4	5.5	8.5	11.2	11.7	12.4	12.3	10.4	9.9	9.2	9.1	8.3	7.1	5.9	5.1	4.0	3.1	24	12.4
19	2.8	2.0	1.3	1.5	1.5	1.5	1.8	1.7	1.6	1.4	1.2	1.1	1.5	1.7	2.2	2.6	2.8	4.6	10.2	14.7	31.5	19.4	14.4	13.1	24	31.5
20	10.8	11.5	10.1	8.0	8.1	9.3	13.4	27.4	12.2	6.3	4.9	3.3	2.8	2.8	2.8	2.8	3.1	3.2	5.4	8.9	24.6	29.4	22.9	21.9	24	29.4
21	18.4	22.6	21.4	29.0	31.6	40.9	45.2	30.7	14.1	6.5	8.1	5.8	6.4	8.3	8.3	9.2	7.4	5.6	4.9	4.9	5.4	5.8	5.5	5.6	24	45.2
22	5.8	6.0	6.2	6.3	6.9	7.9	9.0	7.8	7.5	8.2	7.7	7.9	8.2	8.1	8.1	8.1	9.1	9.7	8.7	6.4	3.8	4.5	5.2	5.6	24	9.7
23	5.7	5.5	5.6	5.9	8.1	10.0	8.6	6.2	4.7	5.0	5.1	4.8	3.7	2.9	2.8	2.7	2.5	2.4	2.4	3.2	4.2	4.6	4.6	5.0	24	10.0
24	6.4	5.9	7.7	6.6	5.1	10.8	10.4	10.2	4.0	2.8	2.4	2.3	2.8	3.0	3.3	3.4	3.1	3.5	4.6	4.1	4.2	4.8	4.3	4.6	24	10.8
25	5.2	5.4	6.3	7.6	7.9	11.2	15.7	9.1	3.8	3.8	3.7	3.2	3.3	3.1	3.0	3.3	2.8	2.9	4.6	3.8	3.6	6.3	6.4	5.9	24	15.7
26	5.0	5.2	7.2	9.8	10.5	9.4	7.5	7.0	5.7	5.7	6.3	6.4	5.3	5.2	5.9	5.4	5.7	5.7	6.5	12.7	20.3	27.5	20.2	17.6	24	27.5
27	12.4	13.5	16.5	15.8	14.1	14.4	14.5	14.8	17.3	13.1	11.8	10.2	9.3	9.1	11.1	8.9	8.6	10.6	11.4	11.6	11.3	9.4	11.1	10.4	24	17.3
28	7.6	10.8	12.1	12.5	13.1	13.2	13.9	11.5	8.0	7.0	5.7	8.2	8.1	14.3	29.1	21.6	14.9	10.6	10.3	15.7	7.3	6.3	5.3	4.9	24	29.1
29	6.1	5.9	5.7	6.3	5.4	6.2	7.4	6.6	5.8	5.8	6.3	7.5	6.8	6.5	7.0	6.6	7.2	7.5	7.2	7.0	6.2	5.4	4.9	5.2	24	7.5
30	5.5	6.5	7.8	7.8	8.0	8.1	8.0	8.3	9.0	9.5	9.8	11.1	11.9	12.2	12.8	12.2	11.8	11.3	11.3	3.9	3.5	3.8	4.3	4.7	24	12.8
31	5.8	7.6	9.0	9.2	9.5	9.8	9.0	8.8	7.8	6.7	5.7	5.5	4.9	4.9	5.4	3.7	3.6	3.7	3.8	4.5	5.9	4.9	4.9	5.6	24	9.8
NO.:	31	31	31	31	31	31	31	31	31	30	29	29	30	31	31	31	31	31	31	31	31	31	31	31		
MAX:	34.2	71.6	84.8	82.5	92.2	84.8	75.2	39.8	46.9	52.2	38.8	30.7	21.0	19.1	29.1	21.6	14.9	14.7	22.3	29.5	31.5	34.8	26.9	28.9		
AVG:	10.70	11.92	12.97	13.90	14.77	13.95	13.91	11.84	10.27	8.93	7.42	6.27	5.91	6.34	6.92	6.58	6.30	6.67	7.77	9.57	11.05	10.75	10.10	10.34		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 9.82 MONTHLY MAX: 92.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: APRIL 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
HOUR

MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	5.9	8.7	7.4	6.3	6.3	6.5	6.7	6.3	4.8	4.8	4.3	4.2	3.9	3.9	3.4	3.3	3.3	4.2	4.6	6.7	21.7	14.8	13.9	32.9	24	32.9
2	22.9	14.4	11.4	10.2	20.7	11.9	8.7	8.0	7.6	6.9	5.6	5.7	4.6	4.2	9.8	6.4	4.9	5.2	7.1	47.1	22.8	19.0	20.3	24.1	24	47.1
3	16.1	13.3	12.0	12.7	11.4	12.3	15.7	15.1	11.2	7.7	5.9	5.6	5.2	5.0	4.5	4.1	4.1	4.6	5.3	23.8	30.2	24.5	20.8	16.7	24	30.2
4	16.6IM	17.4IM	18.3IM	19.2IM	20.2IM	14.9IM	18.4IM	16.0IM	12.7IM	9.7IM	8.4IM	7.1IM	7.9IM	7.6IM	10.5IM	12.0IM	16.8IM	41.0IM	49.5IM	28.0IM	23.5IM	13.2IM	6.8IM	6.8IM	24	49.5
5	6.6	6.7	6.9	6.4	4.8	3.1	5.6	3.7	2.8	2.8	3.3	3.5	3.7	4.2	4.6	4.4	4.5	5.1	5.5	5.6	7.0	11.7	14.0	13.6	24	14.0
6	13.3	13.3	13.1	12.8	12.8	13.3	13.6	14.2	14.7	16.1	17.5	17.5	17.8	18.3	18.2	19.1	20.5	22.0	21.8	12.8	12.1	6.3	4.0	3.1	24	22.0
7	3.0	2.9	2.8	2.7	3.1	3.0	3.1	3.3	4.6	6.2	10.8	10.5	6.9	5.1	4.0	3.9	4.0	3.8	3.4	3.6	4.1	6.0	5.2	3.9	24	10.8
8	3.3	3.5	3.4	3.5	3.6	3.5	3.5	4.1	7.6	26.3	69.7	46.0	13.1	4.0	4.0	3.6	3.3	3.3	3.4	3.8	4.8	5.5	5.3	4.4	24	69.7
9	4.0	3.9	4.9	5.4	6.4	7.2	6.3	5.4	4.0	5.8	5.6	5.1	4.5	4.1	4.0	4.1	4.3	4.3	5.0	17.0	15.2	13.7	12.4	12.1	24	17.0
10	14.5	12.6	12.3	12.5	15.1	14.2	10.2	8.7	6.6	6.9	6.6	6.0	5.3	5.1	5.0	4.6	4.4	3.7	3.8	4.0	4.6	5.5	5.5	5.9	24	15.1
11	7.2	8.1	7.1	5.9	6.5	7.6	6.4	6.2	7.2	7.5	6.7	5.4	5.3	5.0	5.1	8.0	5.5	5.3	6.5	4.9	5.1	6.2	7.2	9.3	24	9.3
12	6.9	7.1	7.0	7.3	10.2	10.2	10.4	11.0	11.7	AZ	10.5	10.3	10.0	10.7	9.7	8.6	8.5	8.7	8.3	8.2	8.2	8.7	7.5	8.5	23	11.7
13	8.4	8.1	8.3	9.1	9.3	8.4	7.9	8.7	9.8	9.6	7.8	7.3	7.4	7.3	7.6	7.8	8.2	8.5	9.4	9.8	4.8	2.2	1.8	2.0	24	9.8
14	1.8	2.4	4.0	4.3	7.0	6.2	5.5	5.5	5.7	6.0	6.3	6.4	6.9	6.2	6.1	5.8	5.9	5.5	5.9	6.9	6.7	7.6	7.5	8.1	24	8.1
15	7.9	7.8	7.2	6.3	5.8	6.3	6.3	5.4	5.6	5.4	5.3	5.6	5.8	5.6	6.1	15.2	37.9	23.9	8.0	13.5	11.3	16.0	9.2	7.2	24	37.9
16	6.0	6.2	6.8	6.6	7.2	7.5	7.8	8.1	8.2	7.7	7.7	7.6	7.0	6.7	7.0	5.3	1.2	.9	1.7	2.6	2.8	2.8	3.3	3.4	24	8.2
17	3.5	3.9	5.4	4.4	4.6	4.0	4.6	4.5	4.6	5.8	8.0	8.4	9.5	10.2	10.3	9.8	9.5	9.0	8.2	3.7	2.4	2.8	3.0	3.4	24	10.3
18	4.1	4.6	4.9	5.0	4.8	4.6	2.9	2.8	2.9	3.3	3.8	4.0	4.1	4.1	4.3	5.1	5.3	5.2	5.4	5.6	5.9	6.4	6.9	6.4	24	6.9
19	6.8	6.8	7.2	7.2	7.5	7.7	7.2	6.2	4.4	3.7	3.7	3.7	4.1	3.6	3.5	3.5	3.7	3.7	3.9	4.9	7.8	10.8	10.1	8.3	24	10.8
20	7.0	6.8	8.0	9.2	7.5	6.2	6.5	5.4	5.3	5.8	7.8	8.2	9.0	11.4	11.1	9.9	9.2	8.7	7.8	7.6	6.5	6.8	7.0	6.9	24	11.4
21	7.2	7.9	7.9	8.2	8.2	8.1	9.1	8.1	8.2	8.2	8.4	8.6	10.6	21.0	20.3	14.8	10.9	13.6	14.0	8.9	8.6	8.4	8.2	9.2	24	21.0
22	11.4	10.6	9.9	9.1	10.5	12.8	10.7	8.0	8.5	8.4	8.0	9.7	10.2	10.2	10.6	9.6	8.6	8.0	7.6	9.3	8.3	6.7	6.9	7.2	24	12.8
23	7.0	7.2	7.4	7.8	9.1	10.4	10.9	7.1	8.1	8.0	7.5	7.3	8.0	7.8	7.5	8.5	8.7	8.1	8.0	8.3	9.2	8.0	7.4	7.3	24	10.9
24	7.2	7.2	7.3	8.1	9.4	10.0	9.3	8.6	8.4	7.4	7.1	7.2	6.4	5.9	5.9	5.7	5.9	6.0	6.5	6.5	7.0	7.9	8.0	7.3	24	10.0
25	6.6	6.6	6.0	5.9	6.6	6.4	8.7	13.3	9.8	6.9	6.9	11.0	8.4	9.4	8.2	8.2	7.2	4.2	4.2	4.6	4.9	5.7	5.5	5.2	24	13.3
26	5.0	4.0	3.7	4.1	4.6	4.9	4.6	5.2	4.5	BA	BA	BA	BA	BA	5.6	5.6	4.8	4.0	3.7	4.1	4.6	4.5	4.9	4.5	19	5.6
27	4.8	4.9	4.6	6.0	6.2	5.0	4.8	4.4	4.2	AZ	4.0	4.1	3.9	4.1	4.3	7.1	5.5	4.4	4.3	5.0	6.6	10.1	10.8	10.7	23	10.8
28	11.5	9.9	10.3	7.9	8.5	9.6	13.1	16.9	19.8	14.5	10.9	8.5	7.1	7.8	8.2	8.0	8.6	9.2	10.3	12.9	14.9	15.2	15.8	15.4	24	19.8
29	20.5	24.8	26.8	26.2	24.9	22.7	20.2	14.6	15.2	14.0	10.6	7.8	8.6	9.4	9.2	9.0	8.2	8.4	8.4	7.6	6.1	5.0	5.1	4.8	24	26.8
30	4.8	5.3	5.2	5.3	5.6	5.9	6.3	5.8	4.9	4.9	5.3	6.2	8.2	9.1	9.1	9.5	9.8	9.3	10.7	9.9	7.7	7.3	8.7	10.0	24	10.7
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	27	29	29	29	29	30	30	30	30	30	30	30	30	30	30		
MAX:	22.9	24.8	26.8	26.2	24.9	22.7	20.2	16.9	19.8	26.3	69.7	46.0	17.8	21.0	20.3	19.1	37.9	41.0	49.5	47.1	30.2	24.5	20.8	32.9		
AVG:	8.39	8.23	8.25	8.19	8.95	8.48	8.50	8.02	7.79	8.16	9.45	8.57	7.36	7.48	7.59	7.68	8.11	8.39	8.41	9.91	9.51	8.98	8.43	8.95		

MONTHLY OBSERVATIONS: 713 MONTHLY MEAN: 8.41 MONTHLY MAX: 69.7

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
REPORT FOR: MAY 2022
DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	9.3	9.5	11.2	10.4	11.1	11.9	11.5	13.5	11.0	8.6	5.9	6.4	4.7	4.7	4.4	4.1	3.8	3.8	4.6	5.2	5.9	6.3	6.5	7.0	24	13.5
2	7.7	7.7	7.9	9.7	10.7	9.6	9.6	9.5	8.1	7.8	6.8	6.7	6.6	6.2	5.6	6.1	7.0	6.9	6.0	5.7	5.4	6.1	7.2	6.3	24	10.7
3	5.8	5.7	5.5	5.9	5.6	6.5	6.8	6.8	5.7	5.4	5.7	5.9	6.5	6.4	10.0	5.9	5.2	6.2	19.1	16.9	13.0	11.3	11.3	12.2	24	19.1
4	15.8	18.5	18.4	18.9	15.8	11.9	8.6	11.1	12.6	10.5	8.6	6.8	7.1	10.3	7.2	6.5	10.4	7.8	6.9	8.3	9.2	7.7	7.9	9.7	24	18.9
5	10.7	9.6	9.8	10.1	10.3	9.6	7.3	6.5	6.0	6.9	6.6	6.2	5.8	5.7	5.5	5.6	6.1	6.6	6.9	7.2	7.1	7.5	7.1	4.5	24	10.7
6	3.7	3.8	3.8	3.7	4.1	4.2	4.1	4.4	4.8	5.1	5.5	5.7	5.5	5.1	4.9	4.7	5.1	5.8	5.5	5.8	6.2	6.9	6.8	8.3	24	8.3
7	6.7	6.7	6.8	6.6	6.3	6.1	5.9	6.1	5.1	4.3	4.8	4.4	4.3	4.4	4.5	4.7	4.7	4.9	5.0	6.3	6.5	6.3	6.7	6.6	24	6.8
8	6.1	5.5	5.7	5.7	5.9	5.9	6.0	5.3	5.6	5.9	6.1	6.5	7.4	8.6	10.1	11.5	11.7	11.7	12.1	12.6	13.9	14.3	12.4	12.1	24	14.3
9	12.5	11.2	10.8	11.3	11.6	10.5	8.3	7.3	AZ	7.3	10.3	12.0	13.0	13.1	13.2	15.1	20.7	18.8	23.4	20.6	12.8	10.7	10.2	10.9	23	23.4
10	10.1	10.4	11.1	12.2	38.5	33.5	16.2	8.5	9.2	10.0	11.8	12.8	14.1	13.1	12.3	12.3	12.1	11.9	13.4	14.6	15.7	17.7	17.0	16.2	24	38.5
11	16.3	15.4	15.1	14.6	14.7	15.0	17.4	17.1	17.3	13.8	10.9	9.6	9.8	11.0	12.1	11.8	12.1	12.9	13.4	13.8	16.3	16.5	17.3	18.5	24	18.5
12	21.6IT	18.9IT	20.2IT	26.9IT	22.5IT	22.4IT	25.9IT	22.6IT	22.0IT	19.1IT	17.0IT	17.6IT	18.3IT	20.8IT	18.4IT	17.9IT	18.3IT	16.2IT	15.1IT	14.4IT	11.4IT	10.9IT	11.9IT	13.5IT	24	26.9
13	13.7	13.6	11.2	9.3	9.5	10.2	11.3	12.2	13.6	16.5	17.3	16.7	13.3	11.5	12.1	10.1	10.3	11.6	12.4	7.6	4.9	5.3	6.4	7.4	24	17.3
14	8.3	6.7	8.9	9.8	7.9	9.0	9.7	8.9	7.9	7.0	7.1	7.3	6.9	6.9	7.1	6.9	7.6	7.2	7.4	9.0	9.6	10.8	9.8	10.4	24	10.8
15	10.7	10.8	11.0	12.7	12.9	13.0	12.7	12.5	10.8	9.9	9.7	10.2	10.1	9.0	8.8	9.1	9.6	10.4	11.1	11.2	12.9	13.8	10.5	7.5	24	13.8
16	7.1	7.1	7.6	7.9	8.5	8.7	8.4	7.0	6.7	7.2	6.4	6.1	6.7	7.4	10.6	8.3	7.0	7.1	8.8	18.6	9.5	10.1	10.8	11.5	24	18.6
17	11.6	11.2	12.1	12.5	13.6	13.9	13.0	11.6	11.9	13.1	13.2	13.4	13.3	13.1	12.5	13.4	14.2	14.2	17.2	17.3	18.9	18.7	18.6	21.8	24	21.8
18	19.3	17.5	16.3	18.2	18.2	20.0	19.7	21.4	16.8	13.9	15.0	16.4	14.8	16.1	14.9	14.1	15.4	15.8	14.1	13.7	13.1	12.4	11.6	9.9	24	21.4
19	9.5	9.1	8.8	8.9	8.6	10.9	10.8	7.5	6.7	6.6	7.6	9.1	9.9	9.5	10.2	9.9	8.6	9.7	8.8	9.3	8.3	9.1	7.2	8.3	24	10.9
20	11.1	11.5	10.2	9.0	10.9	10.2	9.4	5.9	6.5	4.7	4.7	5.7	6.3	6.9	7.7	9.3	10.5	11.7	12.6	12.6	9.8	8.0	7.9	8.7	24	12.6
21	10.2	9.0	8.6	9.8	11.6	10.0	9.0	9.5	11.0	10.7	10.0	9.6	10.1	8.5	3.6	3.8	3.3	3.1	4.0	5.6	6.9	8.0	7.9	8.6	24	11.6
22	8.9	8.1	7.1	6.9	6.5	7.1	8.9	9.4	9.8	8.9	6.9	7.2	7.1	6.5	7.5	10.6	14.6	14.8	15.7	16.6	14.2	13.0	12.6	13.5	24	16.6
23	13.5	12.3	12.0	12.4	12.9	11.0	9.3	10.7	10.3	9.2	8.0	7.7	8.7	10.7	7.9	9.8	9.8	9.5	9.5	10.0	10.2	10.2	11.3	12.5	24	13.5
24	11.3	12.6	13.2	12.6	9.0	5.7	5.0	5.7	9.3	12.3	14.7	16.4	17.2	16.8	14.4	11.5	10.0	8.7	8.3	8.0	6.9	5.5	4.8	3.8	24	17.2
25	3.5	2.2	1.5	1.7	1.8	2.1	2.5	3.3	4.7	6.4	6.5	7.0	7.4	6.5	7.1	8.3	7.6	6.8	6.3	6.0	6.2	6.0	6.4	6.3	24	8.3
26	6.3	7.2	8.2	9.4	7.9	7.0	6.1	5.5	6.0	4.8	4.9	4.5	4.3	4.2	4.2	3.7	3.8	3.8	4.1	5.2	6.2	7.8	9.8	8.3	24	9.8
27	7.8	8.1	7.6	7.2	6.8	6.5	6.8	6.8	4.7	4.6	4.1	3.8	2.9	3.1	2.8	3.0	3.1	3.0	2.8	3.1	4.0	4.6	5.6	5.9	24	8.1
28	6.3	7.2	7.1	8.5	8.1	7.7	7.0	6.6	6.4	5.5	6.0	6.2	6.0	5.8	5.3	5.5	5.4	5.6	5.7	6.3	8.7	11.9	13.1	9.6	24	13.1
29	9.4	9.6	10.0	10.6	11.4	12.4	16.1	12.3	7.8	6.9	7.9	7.0	6.9	7.3	7.6	8.0	7.5	7.4	8.2	9.6	7.8	8.9	8.9	15.5	24	16.1
30	11.3	10.9	9.5	8.9	8.5	7.5	8.1	8.3	6.7	5.5	5.5	5.6	5.6	6.0	6.2	6.1	6.3	5.4	4.8	4.7	4.8	5.8	6.7	7.4	24	11.3
31	6.6	8.1	5.8	6.0	7.9	7.6	6.8	6.1	6.8	AZ	7.5	7.6	7.3	6.8	6.9	7.2	5.9	4.8	4.4	3.9	3.9	5.4	4.7	7.0	23	8.1
NO.:	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	21.6	18.9	20.2	26.9	38.5	33.5	25.9	22.6	22.0	19.1	17.3	17.6	18.3	20.8	18.4	17.9	20.7	18.8	23.4	20.6	18.9	18.7	18.6	21.8		
AVG:	10.09	9.86	9.77	10.27	10.95	10.57	9.94	9.35	9.06	8.61	8.48	8.65	8.64	8.77	8.57	8.54	8.96	8.84	9.60	9.99	9.36	9.60	9.58	9.99		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 9.42 MONTHLY MAX: 38.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

UTM NORTHING:

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: JUNE 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	9.0	5.5	5.5	8.2	9.5	6.6	6.0	6.8	6.7	7.1	7.7	7.5	7.3	6.8	6.0	5.2	6.1	6.2	6.3	6.2	7.3	7.6	8.6	8.6	24	9.5
2	8.5	8.6	7.8	8.0	8.6	9.0	7.7	7.0	7.0	6.7	7.0	7.0	7.5	7.8	8.1	8.5	8.2	5.8	6.0	5.7	5.7	7.7	11.0	11.9	24	11.9
3	8.4	7.8	7.4	7.1	7.3	8.1	7.8	7.6	7.3	6.4	6.4	6.1	5.6	5.4	7.3	6.8	6.6	6.2	6.5	6.4	6.2	6.5	6.4	6.1	24	8.4
4	7.2	9.0	7.7	7.4	6.8	8.3	9.2	7.5	6.2	6.4	6.3	6.2	6.3	6.3	6.1	6.1	6.5	6.4	9.3	9.0	13.2	12.6	16.9	12.6	24	16.9
5	13.2	13.0	12.3	15.7	21.8	23.5	21.0	17.0	12.9	9.8	9.4	9.8	10.5	10.4	10.8	10.5	10.6	10.7	10.4	13.4	15.2	14.1	15.0	14.5	24	23.5
6	15.5	15.2	14.0	13.7	14.2	13.9	13.8	12.5	8.7	8.2	8.2	8.8	8.8	9.3	10.0	10.0	9.9	9.8	9.1	8.9	7.9	7.9	7.7	7.6	24	15.5
7	7.8	8.0	8.1	9.1	9.9	11.3	6.3	4.8	4.3	4.8	5.1	5.6	7.8	7.7	7.9	7.8	7.3	7.9	8.2	7.1	5.8	4.5	4.6	4.9	24	11.3
8	4.4	4.4	4.4	4.5	4.7	5.0	5.6	4.8	4.4	3.7	4.1	4.9	5.4	5.1	5.8	5.7	5.6	5.9	7.9	9.6	10.5	8.4	6.6	6.2	24	10.5
9	5.8	5.6	6.3	6.7	9.5	10.6	10.1	10.0	10.2	11.6	10.9	11.0	11.5	11.3	11.3	12.0	11.9	10.8	10.8	10.1	11.3	9.7	9.5	9.3	24	12.0
10	9.1	10.7	10.9	10.0	10.7	15.0	18.8	15.9	11.2	9.3	9.5	11.0	11.9	4.3	2.9	3.1	3.3	3.8	3.9	3.6	3.8	5.7	8.5	8.8	24	18.8
11	7.3	7.3	7.2	7.7	7.0	6.7	5.3	4.4	4.3	4.6	5.2	6.5	6.8	7.6	7.8	7.3	6.4	6.4	6.7	15.0	8.2	8.7	13.7	9.7	24	15.0
12	10.9	11.3	9.5	9.7	10.1	9.4	9.3	9.8	9.4	9.2	9.7	9.6	9.5	9.9	10.2	10.1	10.2	10.9	11.4	11.9	12.2	13.1	13.9	14.6	24	14.6
13	14.9IA	16.5IA	19.9IA	24.5IA	26.6IA	27.9IA	31.3IA	36.5IA	38.1IA	36.2IA	34.3IA	32.3IA	32.4IA	32.8IA	32.8IA	32.0IA	33.7IA	33.2IA	31.4IA	32.0IA	34.3IA	33.7IA	32.0IA	30.1IA	24	38.1
14	27.9IA	27.7IA	28.1IA	29.2IA	29.8IA	29.5IA	29.4IA	31.0IA	31.7IA	30.9IA	29.5IA	28.1IA	26.9IA	26.2IA	24.6IA	24.0IA	24.5IA	22.0IA	15.1IA	12.9IA	10.9IA	5.2IA	5.6IA	6.5IA	24	31.7
15	10.1IA	11.0IA	10.7IA	11.7IA	13.8IA	14.4IA	15.4IA	23.1IA	28.9IA	30.4IA	30.9IA	28.9IA	26.7IA	24.9IA	22.6IA	20.7IA	19.0IA	18.9IA	19.1IA	20.1IA	21.1IA	20.5IA	20.1IA	20.1IA	24	30.9
16	19.5	17.4	16.2	13.9	14.8	17.3	16.6	15.0	13.3	12.9	13.5	14.6	13.8	16.2	14.5	14.0	12.8	4.6	4.4	5.3	5.9	6.1	6.7	7.6	24	19.5
17	8.8	7.6	8.2	9.4	9.2	15.6	10.2	14.8	10.9	10.0	10.1	10.1	10.0	9.2	9.9	10.2	9.3	10.4	10.1	9.9	10.2	10.6	11.2	12.7	24	15.6
18	11.9	11.2	12.3	12.0	12.1	12.5	13.5	14.2	15.0	15.4	14.6	14.3	14.8	15.1	13.1	12.6	14.1	12.7	6.9	5.4	5.7	6.7	7.3	8.3	24	15.4
19	9.2	10.7	11.5	12.0	11.6	10.9	9.1	8.4	7.6	7.6	7.1	7.4	7.3	7.2	7.0	6.0	5.4	6.2	6.4	7.2	7.5	8.2	9.3	9.8	24	12.0
20	10.8	11.1	11.9	12.4	13.1	11.7	11.5	11.0	11.4	AZ	12.7	13.7	14.3	13.8	13.7	10.5	9.7	9.6	9.5	10.7	11.2	10.9	11.1	10.6	23	14.3
21	10.1	10.1	10.2	10.1	11.0	14.2	11.3	10.3	9.4	8.9	10.0	9.3	9.0	9.4	9.2	9.8	11.6	10.2	9.8	9.4	9.5	10.7	11.5	10.9	24	14.2
22	10.6	10.2	13.3	16.9	14.6	14.3	13.6	13.2	13.1	13.5	13.1	14.3	14.5	15.1	15.7	15.8	14.2	13.2	11.8	12.8	14.6	15.0	14.4	15.0	24	16.9
23	13.3	13.4	13.7	13.8	13.5	14.2	14.5	15.8	17.2	17.8	18.3	17.7	18.1	17.5	17.4	16.5	15.4	16.6	17.5	18.6	19.8	22.2	21.1	22.0	24	22.2
24	26.6	22.5	22.0	21.6	22.1	21.7	21.0	19.7	16.2	13.5	13.5	13.0	12.2	13.0	12.7	11.3	9.4	9.0	8.9	8.7	9.7	10.8	10.8	11.7	24	26.6
25	12.3	13.2	12.8	13.4	13.8	13.6	14.4	15.2	16.7	15.7	13.2	13.8	13.5	11.3	8.9	7.9	9.0	10.6	15.2	13.9	14.0	14.3	14.2	15.7	24	16.7
26	15.2	13.6	13.6	14.2	13.2	12.4	12.8	11.9	13.8	15.0	15.2	16.2	16.2	16.9	16.8	16.0	8.2	6.8	6.7	5.1	5.0	6.5	7.4	8.0	24	16.9
27	8.0	9.1	11.0	10.6	11.4	10.0	8.4	9.1	9.3	8.9	8.8	9.0	8.5	9.3	8.9	9.1	6.4	6.9	7.6	9.0	8.1	6.0	5.3	5.3	24	11.4
28	5.6	6.1	6.3	7.2	7.4	7.3	7.3	6.8	6.8	7.2	7.7	8.8	9.7	10.6	11.4	11.5	11.4	10.4	10.1	10.0	8.8	7.7	7.9	7.4	24	11.5
29	7.0	6.8	7.2	7.9	8.4	8.5	7.6	8.8	9.4	6.9	5.5	5.0	6.5	5.7	5.6	4.0	3.8	4.1	4.7	5.0	4.5	5.6	5.5	6.0	24	9.4
30	4.6	4.1	4.8	4.9	3.5	5.1	3.3	6.3	3.0	4.0	6.6	5.1	6.5	4.6	3.7	2.8	3.3	3.3	3.3	3.6	4.1	4.9	6.1	4.8	24	6.6
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	27.9	27.7	28.1	29.2	29.8	29.5	31.3	36.5	38.1	36.2	34.3	32.3	32.4	32.8	32.8	32.0	33.7	33.2	31.4	32.0	34.3	33.7	32.0	30.1		
AVG:	11.12	10.96	11.16	11.78	12.33	12.95	12.40	12.64	12.15	11.81	11.80	11.85	11.99	11.69	11.42	10.93	10.46	9.98	9.83	10.22	10.41	10.40	11.00	10.91		

MONTHLY OBSERVATIONS: 719 MONTHLY MEAN: 11.34 MONTHLY MAX: 38.1

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

UTM NORTHING:

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: JULY 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	5.0	5.2	5.3	5.2	5.1	5.5	6.4	6.7	6.5	6.7	3.8	3.5	3.5	3.6	4.6	3.6	3.3	5.0	4.2	4.1	4.5	4.8	5.6	6.3	24	6.7
2	6.1	5.2	6.0	5.8	5.7	6.3	6.6	6.4	4.6	4.5	4.9	4.5	4.5	3.5	3.4	3.4	3.7	4.1	4.6	4.9	5.6	5.6	6.0	6.0	24	6.6
3	6.6	5.4	4.6	4.5	5.3	5.3	5.8	6.0	4.5	4.0	3.7	3.7	3.7	4.1	4.8	4.6	4.4	3.5	3.0	3.3	2.5	3.0	5.0	5.4	24	6.6
4	5.5	6.1	6.8	6.9	7.2	6.2	6.8	6.7	5.3	5.4	5.6	6.0	6.1	6.1	4.2	3.3	3.3	5.0	4.3	6.3	9.9	11.5	18.8	23.5	24	23.5
5	16.1	12.3	11.9	12.4	13.0	9.8	10.3	8.8	7.9	8.5	8.0	8.8	3.7	2.2	2.3	2.6	3.1	2.6	2.8	3.4	5.3	5.4	5.5	4.9	24	16.1
6	4.1	4.6	5.8	6.1	6.6	6.6	7.5	7.4	7.0	6.3	5.9	6.1	6.1	6.5	7.1	6.6	6.8	6.2	5.8	7.5	5.8	5.5	5.5	6.5	24	7.5
7	6.3	7.0	7.6	7.7	7.7	8.9	9.0	6.4	4.6	4.7	5.0	5.5	6.0	6.3	7.0	8.6	8.7	8.7	9.1	9.7	8.3	5.5	5.2	5.4	24	9.7
8	6.0	6.5	6.5	6.6	6.8	7.4	7.3	6.5	6.5	AZ	AZ	AZ	7.3	7.3	7.2	7.5	7.1	7.3	7.6	9.4	7.3	6.7	6.2	6.3	21	9.4
9	5.9	5.9	5.4	5.1	5.2	5.5	6.1	6.9	6.2	6.2	6.6	6.7	6.4	6.8	6.7	7.1	7.0	6.9	7.1	7.5	8.3	6.9	3.7	4.0	24	8.3
10	3.9	4.2	4.4	4.3	4.6	5.0	5.6	4.7	4.2	4.7	5.5	5.5	5.5	6.3	6.8	7.4	7.6	6.7	5.0	6.5	6.1	5.1	5.0	6.0	24	7.6
11	7.3	7.5	7.4	8.2	8.1	7.1	7.4	7.8	7.9	8.6	8.8	9.0	9.2	9.2	8.7	8.1	7.8	7.5	6.8	5.5	5.4	5.8	5.6	5.8	24	9.2
12	6.1	7.2	9.9	9.2	8.0	8.1	9.4	9.5	6.7	5.7	6.2	6.1	6.4	7.0	7.5	7.9	8.2	6.8	7.6	6.5	7.4	7.3	8.1	8.1	24	9.9
13	8.0	7.2	7.8	7.7	7.4	7.1	8.5	8.9	9.5	9.5	9.7	8.3	7.6	7.5	7.7	8.1	8.9	8.8	4.4	4.3	4.3	4.5	4.5	5.1	24	9.7
14	6.6	7.6	9.1	10.9	10.5	7.7	6.4	6.5	6.8	6.3	6.6	7.1	7.0	6.8	6.1	6.7	6.0	5.1	3.3	5.3	5.4	3.9	4.0	3.7	24	10.9
15	3.8	4.7	4.6	5.0	5.8	5.9	5.7	4.5	4.1	4.2	4.1	4.3	4.7	5.9	6.2	6.6	7.0	7.6	6.7	3.7	4.9	5.1	6.4	8.0	24	8.0
16	7.4	7.6	7.8	8.1	8.1	9.0	7.5	6.3	5.5	5.3	5.5	5.9	5.8	4.9	3.6	4.0	4.6	5.9	6.9	5.9	6.2	6.9	7.7	8.9	24	9.0
17	9.7	9.1	9.4	9.6	8.8	8.8	7.9	6.6	6.6	6.5	6.8	7.3	6.9	7.2	7.4	7.6	7.9	5.4	4.7	5.4	4.3	4.1	4.5	4.5	24	9.7
18	4.6	5.0	5.6	6.6	7.0	7.7	7.1	8.4	11.6	12.6	BA	BA	3.9	7.2	16.5	13.6	11.7	12.4	13.7	13.3	13.3	14.4	14.3	13.6	22	16.5
19	13.5	12.8	12.0	11.7	10.5	9.8	9.3	7.1	5.6	5.1	5.1	5.5	6.1	5.6	5.4	5.9	6.0	5.6	5.2	5.3	5.1	4.7	4.9	5.0	24	13.5
20	5.2	5.6	6.2	6.6	6.5	7.2	7.4	7.9	8.8	9.0	9.1	9.2	8.6	8.3	8.5	8.6	8.3	13.6	13.5	10.9	8.9	6.7	6.5	6.9	24	13.6
21	8.5	8.8	9.1	9.4	9.8	10.1	10.4	10.6	10.5	11.3	11.1	10.2	10.4	10.2	10.4	10.3	10.9	11.3	12.1	13.8	15.8	13.5	11.6	6.0	24	15.8
22	3.1	4.1	4.7	4.0	4.2	3.9	3.8	4.4	4.1	4.1	4.8	5.2	5.4	5.6	5.3	5.3	5.2	5.0	4.4	5.1	5.1	5.3	5.6	6.4	24	6.4
23	6.6	6.4	6.7	7.9	7.9	7.9	7.8	7.9	8.8	11.1	12.7	12.7	13.1	13.7	13.8	12.7	12.0	10.8	9.8	8.0	8.5	8.8	9.0	10.1	24	13.8
24	11.3	12.6	11.8	9.7	10.0	10.1	9.6	8.1	6.7	5.1	4.5	4.6	4.6	4.5	4.3	3.7	3.7	4.2	4.6	4.8	5.9	6.5	6.1	5.8	24	12.6
25	6.6	6.7	7.1	7.4	7.0	6.4	5.0	5.3	5.1	5.4	5.0	4.9	4.6	3.9	3.9	4.4	4.0	4.1	4.4	5.1	6.1	5.6	5.9	6.1	24	7.4
26	7.1	8.2	8.8	8.4	8.2	7.7	8.6	6.4	4.2	4.1	4.7	4.4	4.4	4.6	4.9	5.0	4.7	4.3	4.5	4.8	4.6	5.1	5.0	5.5	24	8.8
27	5.6	6.1	6.9	7.7	8.4	6.9	6.9	6.6	5.7	4.7	4.2	4.2	4.1	4.4	5.0	4.7	4.3	3.3	3.4	3.7	3.9	3.9	4.4	5.0	24	8.4
28	5.5	5.7	7.5	8.4	9.4	9.4	8.9	6.0	4.5	3.7	4.4	4.6	4.7	4.2	4.2	3.7	3.6	3.7	4.2	3.7	3.7	4.0	3.6	3.7	24	9.4
29	4.2	4.5	4.7	4.6	5.8	5.3	5.4	4.7	3.7	3.7	3.6	3.5	3.9	3.6	3.7	2.6	3.1	3.0	3.3	3.8	4.7	4.7	5.6	5.6	24	5.8
30	5.5	6.3	6.2	6.4	7.5	8.2	7.5	6.2	4.7	4.3	4.5	4.7	4.5	3.3	1.9	2.4	2.7	1.3	2.5	3.3	3.8	4.2	4.5	5.1	24	8.2
31	5.7	4.9	5.4	5.4	6.0	6.7	5.8	5.6	7.4	11.5	13.3	13.3	14.0	14.1	13.1	8.6	8.8	7.7	7.0	6.9	9.3	8.0	6.2	5.5	24	14.1
NO.:	31	31	31	31	31	31	31	31	31	30	29	29	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	16.1	12.8	12.0	12.4	13.0	10.1	10.4	10.6	11.6	12.6	13.3	13.3	14.0	14.1	16.5	13.6	12.0	13.6	13.7	13.8	15.8	14.4	18.8	23.5		
AVG:	6.69	6.81	7.19	7.34	7.49	7.34	7.35	6.83	6.32	6.43	6.33	6.39	6.22	6.27	6.52	6.30	6.27	6.24	6.02	6.18	6.46	6.23	6.47	6.73		

MONTHLY OBSERVATIONS: 739 MONTHLY MEAN: 6.60 MONTHLY MAX: 23.5

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: AUGUST 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	6.0	6.3	7.2	9.0	8.8	8.5	8.5	6.8	4.8	AZ	3.9	3.9	4.2	2.4	2.8	3.0	2.8	2.9	2.9	3.5	4.1	5.1	4.6	4.9	23	9.0
2	4.6	5.6	6.3	6.3	6.0	5.5	5.7	5.1	6.5	4.7	4.0	2.8	3.4	3.3	2.8	2.8	3.1	3.5	3.4	3.9	4.3	5.0	5.8	3.7	24	6.5
3	3.4	4.2	4.4	5.5	6.8	8.2	9.0	10.0	9.2	9.6	8.5	7.3	6.1	6.0	5.7	3.6	3.4	3.7	3.9	3.6	3.6	3.5	3.7	4.7	24	10.0
4	4.9	5.0	5.3	5.5	5.9	6.3	8.5	10.0	7.7	7.6	6.2	5.1	5.0	4.6	3.3	3.3	3.2	2.6	2.8	5.1	4.2	3.7	3.5	3.7	24	10.0
5	3.9	4.2	4.6	5.1	5.4	7.2	5.9	6.1	5.9	4.9	4.3	3.9	3.6	3.8	3.2	3.7	3.3	3.5	3.7	4.0	4.3	5.7	7.8	7.4	24	7.8
6	7.9	7.4	7.3	7.6	8.4	9.7	9.3	6.6	5.7	4.9	5.5	4.7	3.3	3.6	3.7	4.0	4.8	4.7	3.8	3.9	3.8	4.4	5.0	6.7	24	9.7
7	7.7	8.0	6.7	6.9	7.0	8.1	7.8	6.7	6.4	6.9	6.2	6.1	6.2	6.0	4.8	5.0	4.3	4.2	4.2	4.6	5.1	6.3	7.1	7.2	24	8.1
8	7.3	7.5	8.2	7.6	7.7	8.1	8.1	9.2	7.4	7.1	8.3	6.0	4.2	5.4	5.8	5.0	4.4	4.7	3.9	3.8	4.1	4.4	5.1	5.2	24	9.2
9	5.4	4.7	5.7	5.9	5.9	5.6	6.0	6.1	5.1	4.7	4.8	4.4	4.9	5.4	4.6	4.0	3.4	3.7	3.4	3.3	3.1	3.0	3.5	3.7	24	6.1
10	3.7	3.7	4.1	4.3	4.3	4.1	5.2	5.4	4.6	3.3	2.9	2.8	2.8	3.0	3.7	3.7	2.8	2.7	2.1	2.2	2.7	3.3	3.5	3.2	24	5.4
11	3.7	4.9	5.1	6.5	6.3	6.7	6.5	7.0	7.3	7.3	8.5	8.4	6.1	5.5	5.7	4.1	3.3	3.3	3.5	3.8	4.2	4.7	5.6	8.2	24	8.5
12	7.5	8.5	7.8	3.9	3.4	4.0	3.7	3.8	4.4	4.7	5.0	5.3	5.5	5.3	5.7	5.7	4.6	3.5	3.1	3.7	2.9	3.5	4.1	4.8	24	8.5
13	5.4	5.8	5.5	5.6	5.9	7.0	7.3	6.9	5.3	4.5	4.8	4.3	4.2	3.9	3.4	3.4	3.7	4.5	4.7	5.2	5.6	5.6	6.0	6.4	24	7.3
14	6.5	7.1	7.2	7.2	7.2	7.0	6.0	5.7	7.2	8.3	7.0	6.3	6.1	5.9	5.9	6.3	6.9	7.2	7.7	8.3	10.2	10.1	9.4	9.6	24	10.2
15	10.9	11.2	11.4	11.1	10.9	11.3	11.1	10.3	9.9	9.6	9.6	9.4	9.5	9.4	9.5	10.2	10.2	10.3	10.8	10.9	12.3	11.9	11.9	12.4	24	12.4
16	11.9	12.4	12.4	13.3	13.8	12.7	12.2	12.8	11.6	11.3	11.4	10.8	10.5	10.6	10.9	10.7	10.4	9.5	6.1	4.6	4.2	4.7	4.9	6.4	24	13.8
17	6.6	7.5	8.0	8.5	8.2	9.3	11.0	9.3	8.6	9.6	8.9	8.8	10.1	11.7	10.7	10.0	9.4	8.0	5.9	6.3	7.5	8.5	8.7	8.9	24	11.7
18	9.2	9.8	10.2	11.4	11.1	9.9	9.2	9.0	8.6	6.2	3.8	3.5	3.7	3.7	3.7	3.7	4.5	4.2	4.3	4.7	5.0	4.8	4.6	4.6	24	11.4
19	4.9	5.6	7.0	7.2	6.4	5.0	5.1	5.5	5.3	6.4	5.1	5.6	4.4	4.7	5.7	6.0	5.7	6.0	6.2	5.9	6.2	6.2	6.7	7.2	24	7.2
20	8.2	8.7	9.3	9.9	11.0	10.6	10.0	7.9	6.0	5.9	5.3	4.2	4.1	3.8	3.1	2.3	2.4	2.8	3.1	3.7	4.5	5.3	5.8	5.3	24	11.0
21	6.0	6.0	5.9	6.1	5.9	5.5	5.8	5.6	5.3	4.6	5.1	5.3	5.8	5.8	3.7	3.1	3.2	3.2	3.4	3.9	4.0	5.1	5.8	6.6	24	6.6
22	7.5	6.6	6.4	6.9	6.9	6.5	5.8	4.7	4.6	6.7	7.5	5.8	5.4	4.6	3.0	3.8	2.8	3.2	1.8	2.3	2.8	3.3	3.6	5.0	24	7.5
23	4.7	4.4	4.1	4.3	5.2	4.4	5.8	7.0	6.4	5.7	5.5	4.4	3.2	2.8	2.9	2.9	3.2	3.4	1.5	2.4	2.1	2.0	2.2	3.0	24	7.0
24	3.1	3.5	4.1	4.7	5.1	5.1	5.2	5.3	5.5	5.6	4.7	4.4	2.1	.5	.6	.7	.9	2.7	2.1	2.3	2.9	3.4	3.9	5.0	24	5.6
25	4.9	5.4	5.0	4.9	4.3	5.0	4.4	4.3	4.2	6.0	6.3	5.6	4.4	.9	.9	1.1	1.2	1.4	2.8	2.8	2.7	2.8	3.1	3.3	24	6.3
26	4.1	5.2	5.3	5.0	4.9	4.5	5.0	5.1	4.8	4.0	4.3	3.9	3.5	3.1	2.7	2.5	2.6	2.8	3.1	3.5	3.4	3.7	4.3	4.9	24	5.3
27	5.4	3.5	3.7	3.7	5.6	4.2	4.4	4.4	4.1	3.9	3.8	3.7	3.7	3.7	3.7	3.9	3.6	3.0	3.0	3.5	3.8	3.6	4.2	5.2	24	5.6
28	5.0	5.4	7.4	5.9	6.1	5.7	5.4	6.5	3.3	2.8	2.4	2.8	2.5	2.7	2.8	3.0	3.7	3.7	3.4	4.1	4.8	5.0	5.6	5.7	24	7.4
29	12.3	10.1	7.3	7.0	6.6	6.4	7.0	7.4	4.8	BL	AZ	5.4	5.0	4.5	4.8	5.0	5.0	4.7	5.8	5.0	4.4	4.2	4.6	4.6	22	12.3
30	4.9	5.7	5.6	5.5	5.4	5.1	5.4	6.2	7.4	6.9	7.1	6.7	6.7	3.1	3.1	3.3	2.7	2.8	2.8	2.9	3.6	4.5	5.2	5.3	24	7.4
31	4.8	4.1	3.4	3.3	5.2	7.5	3.5	3.8	4.4	5.1	4.7	4.8	5.1	4.8	5.3	5.3	5.6	6.3	5.6	6.9	7.9	7.7	7.8	8.0	24	8.0
NO.:	31	31	31	31	31	31	31	31	31	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	12.3	12.4	12.4	13.3	13.8	12.7	12.2	12.8	11.6	11.3	11.4	10.8	10.5	11.7	10.9	10.7	10.4	10.3	10.8	10.9	12.3	11.9	11.9	12.4		
AVG:	6.20	6.39	6.51	6.63	6.83	6.93	6.90	6.79	6.20	6.17	5.85	5.37	5.01	4.66	4.46	4.36	4.23	4.28	4.03	4.34	4.65	5.00	5.41	5.83		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 5.54 MONTHLY MAX: 13.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: SEPTEMBER 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	8.2	8.2	8.6	8.6	9.5	10.1	8.8	10.2	9.8	8.4	7.5	7.5	7.9	8.3	8.2	8.4	8.6	9.3	8.9	9.5	11.8	12.0	11.4	10.7	24	12.0
2	10.3	10.3	10.6	10.7	11.4	11.6	11.7	12.7	11.0	12.2	11.3	9.1	10.3	10.6	10.4	10.9	12.2	11.1	11.5	14.5	13.1	13.0	14.2	14.3	24	14.5
3	14.5	15.3	14.9	14.3	14.4	15.0	14.9	13.7	10.6	9.2	9.2	10.6	12.0	12.5	9.7	5.4	5.7	5.6	6.2	6.6	6.9	6.9	7.8	8.2	24	15.3
4	7.6	7.4	7.8	8.3	7.7	8.1	7.3	7.7	9.2	8.8	6.6	5.7	4.8	4.3	4.0	5.0	6.4	6.8	7.5	8.1	8.3	8.8	8.7	8.4	24	9.2
5	7.9	8.0	8.2	7.9	8.4	9.1	8.8	8.1	7.1	6.1	5.8	5.1	3.8	3.4	3.4	3.6	3.7	5.0	5.3	5.3	5.1	5.4	5.6	7.4	24	9.1
6	7.4	7.1	7.4	8.4	8.7	10.3	10.3	10.0	9.6	7.4	8.7	9.1	10.6	10.5	9.5	9.0	9.5	9.4	10.0	14.0	11.2	11.0	13.3	14.5	24	14.5
7	15.3	14.1	14.1	14.3	14.0	13.4	11.6	9.5	8.1	7.6	7.7	7.9	7.2	7.5	7.3	7.4	7.4	4.9	4.0	4.4	5.5	4.2	5.0	6.0	24	15.3
8	5.6	7.3	7.9	8.1	9.0	9.2	9.3	9.3	8.4	8.1	7.6	6.2	6.0	5.8	6.1	6.1	6.0	7.1	7.2	7.5	7.2	7.9	7.7	7.7	24	9.3
9	8.4	8.2	8.6	8.7	9.3	10.2	9.7	10.0	9.4	7.9	7.4	7.0	7.7	7.6	5.9	5.3	5.6	3.1	3.8	5.2	3.8	3.5	4.4	6.1	24	10.2
10	7.0	6.4	6.6	7.3	8.9	9.4	9.5	8.6	7.7	6.4	5.9	6.1	6.0	5.7	5.5	5.4	5.2	5.9	7.4	9.5	9.9	9.2	9.8	7.9	24	9.9
11	7.9	8.1	8.5	8.1	9.3	9.2	8.5	7.7	6.5	5.2	6.1	7.2	7.3	8.4	9.3	9.0	6.3	6.9	3.9	5.2	4.4	5.5	6.4	6.8	24	9.3
12	7.6	8.2	7.7	7.6	7.5	7.7	7.3	6.9	6.4	5.9	5.7	6.9	8.7	8.0	8.8	9.9	9.6	9.5	9.8	9.9	9.6	9.2	9.3	9.8	24	9.9
13	9.9	8.7	8.7	9.5	9.3	9.4	10.2	9.0	8.5	7.0	6.2	6.1	6.0	6.2	6.1	6.1	6.5	6.1	6.4	7.1	7.1	7.8	8.8	9.9	24	10.2
14	9.4	8.7	9.9	11.3	12.7	16.7	13.3	11.7	9.9	8.6	7.8	7.9	8.0	8.1	8.4	8.1	8.2	8.6	9.6	10.0	10.2	10.8	12.1	13.2	24	16.7
15	12.5	14.9	15.4	17.3	18.1	16.1	15.9	15.5	13.5	AZ	AZ	8.9	8.2	8.0	8.0	8.3	8.5	9.0	9.8	11.1	12.2	12.2	14.0	14.5	22	18.1
16	14.0	13.3	14.5	15.3	16.0	15.7	17.6	17.1	14.4	13.7	13.4	13.5	12.5	12.3	12.1	12.0	11.2	11.3	11.6	13.2	14.2	15.2	16.1	14.7	24	17.6
17	15.0	16.0	16.7	20.3	18.3	22.0	21.8	21.3	13.3	12.3	11.9	12.4	12.3	12.2	11.8	11.5	11.7	12.3	5.4	5.1	5.8	6.3	7.6	8.0	24	22.0
18	8.5	8.7	8.7	10.2	10.9	11.8	14.2	12.8	10.2	7.1	6.3	6.2	7.0	7.1	7.0	6.8	6.7	8.0	7.8	8.1	10.3	10.7	12.2	11.0	24	14.2
19	10.4	10.1	10.0	11.7	13.3	12.6	12.4	11.1	8.6	9.8	11.3	12.2	12.6	12.8	13.1	13.2	13.3	14.4	15.5	18.2	17.5	19.2	20.7	20.4	24	20.7
20	19.7IT	19.4IT	17.9IT	17.3IT	15.7IT	16.3IT	18.1IT	22.3IT	20.7IT	20.2IT	18.6IT	17.5IT	17.6IT	17.8IT	17.7IT	17.1IT	16.9IT	17.3IT	20.0IT	20.7IT	19.6IT	20.8IT	21.0IT	21.3IT	24	22.3
21	22.5	23.7	23.0	22.1	21.4	20.3	19.4	19.7	20.3	15.4	13.9	14.0	14.3	12.9	12.1	11.3	11.4	11.0	11.2	12.1	12.6	13.2	13.4	13.7	24	23.7
22	13.8	13.9	14.2	15.8	15.3	16.7	17.1	17.8	17.4	16.3	15.7	16.2	14.2	13.7	13.5	14.5	14.5	14.4	16.8	18.5	19.3	19.3	17.9	16.4	24	19.3
23	12.7	11.4	9.9	8.7	8.3	8.7	8.6	7.5	7.7	8.0	7.8	8.4	7.3	7.1	6.9	6.8	6.4	6.3	6.7	8.8	8.5	10.6	7.6	8.1	24	12.7
24	7.9	7.2	7.6	9.3	7.3	7.4	7.4	8.3	8.7	9.8	9.2	8.5	10.7	15.7	12.0	10.7	9.6	10.6	16.7	14.1	14.5	14.2	15.0	17.8	24	17.8
25	18.1	20.2	18.1	18.5	16.4	15.8	15.9	18.0	17.0	13.3	13.5	13.5	14.0	14.1	14.6	15.8	15.4	15.4	17.5	18.9	17.6	17.6	18.6	19.2	24	20.2
26	17.8	16.6	17.1	18.7	18.6	17.5	15.1	14.9	13.4	11.0	11.6	12.5	11.9	10.4	9.7	8.4	7.8	7.1	7.4	7.9	8.2	7.3	5.9	6.3	24	18.7
27	6.3	5.7	5.4	5.4	5.5	6.0	5.9	6.3	5.7	4.5	5.0	AZ	3.7	3.7	3.7	3.5	3.7	3.7	4.1	5.2	6.1	6.1	6.0	6.0	23	6.3
28	5.6	5.9	4.9	4.9	5.0	5.5	6.3	6.3	4.4	4.4	4.4	4.6	5.1	5.0	5.0	4.3	3.8	3.7	4.8	4.4	5.0	3.6	3.7	3.6	24	6.3
29	3.6	3.5	3.8	4.5	4.1	3.9	3.7	4.0	3.6	3.7	3.6	3.3	3.4	3.3	3.4	3.6	3.7	3.8	5.0	5.3	4.8	4.9	5.6	6.0	24	6.0
30	6.0	6.3	6.6	6.4	26.2	9.8	6.7	7.3	5.9	4.5	4.5	3.7	3.6	3.5	3.7	3.6	3.6	3.8	4.5	6.3	7.1	7.8	7.1	6.5	24	26.2
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	22.5	23.7	23.0	22.1	26.2	22.0	21.8	22.3	20.7	20.2	18.6	17.5	17.6	17.8	17.7	17.1	16.9	17.3	20.0	20.7	19.6	20.8	21.0	21.3		
AVG:	10.71	10.76	10.78	11.32	12.02	11.85	11.58	11.51	10.23	9.06	8.77	8.89	8.82	8.88	8.56	8.37	8.30	8.38	8.88	9.82	9.91	10.14	10.56	10.81		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 9.96 MONTHLY MAX: 26.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: OCTOBER 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	6.6	6.7	7.2	7.5	7.8	7.6	9.7	7.7	6.1	5.8	4.7	3.7	3.8	4.0	4.6	4.2	3.8	4.4	7.6	9.5	8.4	9.2	8.1	9.6	24	9.7
2	12.1	10.4	9.6	8.7	8.3	8.5	8.2	8.0	8.0	6.8	5.2	4.7	3.3	2.9	3.2	3.3	3.7	3.7	4.4	4.5	6.1	7.5	7.5	7.4	24	12.1
3	6.4	6.1	6.1	6.2	5.7	5.9	5.9	6.3	6.5	4.5	5.4	4.8	4.8	5.1	5.8	5.7	5.3	5.8	6.1	6.0	7.2	8.2	9.8	9.1	24	9.8
4	8.9	8.9	8.4	8.9	9.0	9.2	10.0	10.9	10.8	9.5	9.9	8.5	8.0	6.1	5.8	6.0	6.1	6.1	6.6	9.6	9.6	9.1	8.5	8.7	24	10.9
5	10.2	11.3	12.4	13.8	14.8	16.4	15.7	15.5	13.8	15.6	11.3	10.2	9.6	10.5	9.9	9.5	9.8	10.7	11.4	12.5	13.4	18.2	17.4	16.6	24	18.2
6	15.7	16.0	17.0	16.8	17.3	17.4	18.3	18.8	21.6	20.8	13.2	11.5	10.8	10.7	10.6	9.4	9.5	9.6	11.5	16.2	16.7	16.6	19.0	17.6	24	21.6
7	16.4	16.1	14.6	14.5	15.5	16.5	17.4	22.1	24.1	21.7	20.9	19.6	18.1	17.5	15.7	14.6	12.9	11.2	12.5	13.0	14.3	16.0	19.5	20.7	24	24.1
8	20.7	19.2	17.7	16.8	15.1	15.1	14.3	14.7	14.6	14.2	13.9	13.1	12.9	12.2	10.2	11.0	11.4	10.4	11.0	10.4	10.0	14.1	12.6	11.3	24	20.7
9	11.5	10.6	9.5	8.0	7.4	7.2	6.9	6.5	4.6	3.9	3.9	4.3	4.0	4.2	4.3	4.4	9.2	8.5	9.5	9.8	12.5	13.5	11.6	11.6	24	13.5
10	12.2IM	13.1IM	13.9IM	14.1IM	16.3IM	14.3IM	12.9IM	12.5IM	11.4IM	7.8IM	7.3IM	9.3IM	10.2IM	10.5IM	15.8IM	24.7IM	29.9IM	31.7IM	37.6IM	29.3IM	30.2IM	39.4IM	50.9IM	48.8IM	24	50.9
11	43.6IM	42.8IM	45.7IM	53.8IM	40.3IM	37.7IM	33.4IM	26.0IM	16.8IM	14.5IM	15.9IM	AZ	15.4IM	14.7IM	13.8IM	17.4IM	19.4IM	22.4IM	22.0IM	16.9IM	19.9IM	21.0IM	21.1IM	21.6IM	23	53.8
12	26.8	21.6	24.0	22.6	15.9	17.7	19.0	10.5	6.7	6.3	4.9	5.5	6.0	5.3	4.9	5.5	5.4	4.8	4.7	5.0	5.0	4.7	4.5	4.9	24	26.8
13	6.5	6.3	7.2	5.1	4.5	4.7	5.1	5.5	7.2	7.7	10.0	11.6	11.8	9.8	7.7	7.3	6.8	8.0	10.0	9.9	12.2	13.8	13.4	13.4	24	13.8
14	13.9	14.8	13.5	13.7	15.1	15.4	14.2	15.6	15.0	13.7	10.8	9.1	7.2	6.6	6.2	6.0	6.6	7.9	11.2	11.5	12.0	12.7	11.1	10.3	24	15.6
15	10.2	14.9	13.4	15.5	25.0	25.7	20.3	16.8	19.2	13.9	8.7	7.6	7.7	7.6	8.0	7.9	8.0	13.6	13.8	16.7	15.2	17.9	16.4	13.7	24	25.7
16	13.6	15.3	18.3	16.9	17.2	20.5	25.8	24.8	23.5	16.3	12.5	12.6	8.9	9.5	10.0	9.9	10.7	11.7	14.8	18.4	18.7	17.6	17.4	18.2	24	25.8
17	19.1	18.9	17.7	19.9	19.9	20.1	22.7	21.0	18.0	13.1	11.9	12.0	14.0	14.8	13.1	9.6	9.0	8.2	7.9	9.2	10.0	9.5	7.6	6.7	24	22.7
18	6.3	6.0	5.9	5.6	5.0	5.1	5.6	5.0	4.1	3.6	3.6	3.2	3.2	3.3	3.0	3.1	3.0	3.4	3.9	4.5	4.6	4.1	4.2	4.4	24	6.3
19	4.3	5.3	7.2	7.6	6.1	5.7	6.3	6.7	8.3	7.6	4.4	4.0	3.4	3.4	20.2	21.3	23.0	17.8	20.8	23.0	25.4	24.3	22.5	12.0	24	25.4
20	10.3	8.2	8.7	8.5	9.2	13.9	10.5	13.5	11.0	8.2	5.4	4.6	4.0	4.2	4.9	5.3	5.6	6.5	9.5	17.0	9.6	10.2	9.7	10.6	24	17.0
21	11.1	13.1	13.6	13.6	16.9	17.7	17.3	25.8	11.4	7.6	6.9	6.2	6.5	7.0	7.4	7.3	7.6	8.7	9.0	9.2	12.2	13.7	12.8	12.4	24	25.8
22	12.9	14.6	14.6	14.0	14.0	17.0	18.4	20.4	19.6	12.3	8.3	8.7	9.3	9.0	8.3	8.4	8.9	10.5	10.9	8.8	7.6	9.4	11.5	11.7	24	20.4
23	16.2	14.3	14.1	14.4	15.7	21.6	21.0	15.5	10.1	9.4	7.9	8.0	7.1	6.7	6.5	6.6	13.8	19.1	11.4	13.9	14.4	17.6	21.9	23.5	24	23.5
24	21.7	21.0	20.2	22.5	29.4	29.2	21.9	19.0	13.5	9.6	6.2	5.6	4.8	5.0	4.8	4.0	4.3	5.0	5.2	5.5	5.9	4.9	5.2	5.7	24	29.4
25	6.0	6.2	6.5	6.1	6.5	6.4	6.1	5.9	6.0	5.7	5.5	5.1	4.1	4.4	3.7	3.3	3.0	3.0	2.8	3.7	2.9	3.1	3.3	3.6	24	6.5
26	3.8	3.7	3.3	3.2	3.7	4.1	4.1	4.1	3.9	4.1	3.9	4.0	4.2	4.6	4.1	4.3	3.9	5.4	18.3	7.9	7.3	6.5	6.6	8.1	24	18.3
27	6.4	5.5	5.4	5.8	6.3	6.7	7.2	8.1	7.2	6.8	6.9	AZ	6.9	6.7	6.7	5.9	6.4	10.2	10.6	14.2	14.2	11.7	10.3	9.3	23	14.2
28	10.7	13.8	11.1	11.7	11.3	10.9	11.4	12.4	13.8	15.3	16.9	17.7	17.9	17.7	16.5	20.1	23.6	19.1	18.9	18.7	17.3	15.9	16.1	16.7	24	23.6
29	15.4	15.2	14.1	13.6	13.5	12.8	12.5	11.0	11.2	11.1	11.0	10.8	10.3	8.7	4.7	3.7	3.1	3.9	4.6	4.6	6.3	6.8	7.3	8.2	24	15.4
30	8.1	8.3	10.6	13.0	14.2	15.0	15.4	16.2	14.5	10.2	9.1	8.6	8.2	8.8	9.2	9.4	10.6	10.5	11.8	14.3	13.5	12.9	12.7	13.0	24	16.2
31	13.4	14.9	15.2	15.1	17.6	17.7	18.2	17.5	14.6	11.0	9.4	7.6	7.4	6.4	6.3	6.1	6.6	7.2	8.1	13.1	10.7	11.7	14.1	15.2	24	18.2
NO.:	31	31	31	31	31	31	31	31	31	31	31	29	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	43.6	42.8	45.7	53.8	40.3	37.7	33.4	26.0	24.1	21.7	20.9	19.6	18.1	17.7	20.2	24.7	29.9	31.7	37.6	29.3	30.2	39.4	50.9	48.8		
AVG:	12.94	13.00	13.12	13.47	13.69	14.31	14.05	13.69	12.16	10.28	8.90	8.35	8.19	8.00	8.25	8.55	9.38	9.97	11.24	11.83	12.04	12.96	13.37	13.05		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 11.46 MONTHLY MAX: 53.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: NOVEMBER 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	15.4	16.7	16.1	15.5	14.7	12.5	14.6	15.0	34.2	13.5	12.1	11.1	11.8	12.1	12.2	12.9	13.5	13.1	14.2	13.0	13.1	13.7	15.1	17.3	24	34.2
2	16.8IM	16.6IM	16.2IM	16.9IM	16.6IM	17.6IM	18.6IM	18.0IM	17.7IM	15.6IM	12.8IM	12.5IM	12.2IM	11.3IM	10.8IM	11.1IM	11.4IM	14.7IM	18.2IM	14.9IM	16.0IM	17.4IM	17.1IM	20.5IM	24	20.5
3	21.5IM	18.9IM	16.7IM	17.6IM	18.3IM	21.3IM	23.1IM	21.7IM	19.7IM	18.3IM	17.4IM	17.6IM	16.5IM	14.8IM	13.4IM	12.9IM	14.3IM	19.4IM	15.1IM	15.6IM	24.4IM	25.8IM	22.8IM	22.1IM	24	25.8
4	22.9	26.9	25.5	22.2	19.5	21.8	17.5	15.9	15.7	15.3	13.5	11.8	14.0	12.8	10.7	9.4	8.5	9.1	10.1	10.2	9.9	9.4	9.0	8.9	24	26.9
5	8.4	8.3	8.3	7.4	7.1	6.9	6.9	6.7	2.3	1.9	2.0	2.0	2.7	2.5	2.2	2.5	2.9	3.2	3.5	3.7	3.3	3.2	3.3	3.3	24	8.4
6	3.7	4.4	4.3	4.7	4.1	4.3	6.1	4.4	2.8	3.8	5.2	5.3	5.3	5.0	4.7	4.5	4.3	7.0	8.2	7.9	18.6	17.6	12.6	19.5	24	19.5
7	15.2	10.8	10.1	10.7	10.3	10.1	9.7	10.7	12.0	10.8	AZ	8.7	6.3	6.1	6.0	5.9	6.3	7.1	9.2	10.3	10.2	10.9	13.8	21.7	23	21.7
8	22.4	23.4	20.9	17.8	20.8	20.1	18.0	18.6	13.7	9.9	9.8	8.4	7.7	9.1	8.7	9.9	10.4	10.7	11.6	13.1	20.6	18.5	15.8	15.9	24	23.4
9	15.6	16.0	14.8	12.3	11.5	10.1	9.4	9.4	8.5	7.7	8.4	8.2	7.5	7.7	7.2	6.5	7.0	14.9	42.2	47.9	37.2	30.1	26.8	26.7	24	47.9
10	30.1	26.0	24.2	17.4	15.6	17.0	15.0	11.8	10.9	7.5	7.4	7.7	7.6	6.7	5.3	5.8	5.9	5.8	7.3	7.6	8.3	9.7	11.7	10.4	24	30.1
11	8.4	8.0	7.9	7.6	7.6	7.8	7.7	7.5	7.3	6.8	5.6	4.4	4.9	4.9	5.1	5.3	6.3	13.0	11.3	10.4	12.4	17.3	15.3	11.6	24	17.3
12	12.2	13.0	16.7	12.5	10.8	8.8	8.4	4.9	3.3	2.8	2.1	2.6	3.6	3.7	3.8	4.1	3.8	3.7	3.7	4.1	4.1	4.0	4.1	4.4	24	16.7
13	5.6	5.4	5.7	6.3	6.7	7.1	8.1	7.6	7.7	8.1	9.1	9.1	8.6	8.1	7.9	8.1	8.3	9.5	11.7	13.9	14.0	13.4	11.4	12.2	24	14.0
14	12.9	12.1	12.6	12.2	11.4	10.6	9.8	10.2	8.3	10.0	AZ	AZ	7.6	6.5	5.9	6.3	6.5	5.7	7.0	7.1	6.5	5.5	5.6	5.2	22	12.9
15	5.4	4.6	3.1	2.7	2.4	6.2	5.1	4.6	3.9	3.3	3.0	3.3	4.0	4.7	5.4	7.0	6.0	5.3	6.1	6.3	5.4	6.1	6.6	7.0	24	7.0
16	6.7	6.9	6.5	7.2	6.4	6.3	6.7	6.9	6.7	6.0	5.5	5.7	6.3	5.1	5.1	5.2	6.4	6.2	8.8	8.6	6.6	6.8	7.5	7.5	24	8.8
17	8.1	9.1	10.1	11.6	13.5	9.9	10.1	9.7	10.0	7.5	6.8	5.8	5.4	5.9	6.3	5.5	5.5	6.8	8.5	18.0	9.5	12.9	12.3	9.6	24	18.0
18	9.9	11.1	8.9	8.2	8.5	10.4	9.8	10.2	8.8	7.4	6.8	6.2	5.3	4.5	3.7	3.9	3.7	4.6	8.4	12.9	13.5	13.3	14.3	15.5	24	15.5
19	13.4	14.5	16.5	18.4	19.6	17.1	13.1	11.1	9.7	8.8	8.2	8.3	8.4	10.1	10.1	10.0	10.9	10.8	12.4	12.3	11.2	11.6	12.3	17.7	24	19.6
20	14.9	15.6	14.2	10.1	8.1	6.3	6.4	8.3	5.8	5.0	5.0	5.0	4.9	4.8	4.5	4.5	4.6	5.9	8.3	8.5	14.3	14.5	16.8	13.0	24	16.8
21	12.9	8.9	8.6	8.8	9.0	8.8	8.1	8.9	8.9	8.3	7.0	5.9	5.4	5.1	6.0	5.1	5.2	6.1	9.5	9.6	8.5	8.2	9.0	8.4	24	12.9
22	8.6	8.8	8.4	9.6	11.1	12.3	11.9	11.0	10.8	10.8	11.9	11.6	10.2	9.3	11.4	14.0	14.0	14.7	21.8	26.7	25.0	25.5	21.5	21.2	24	26.7
23	20.2	18.8	17.8	18.7	19.1	19.1	20.2	19.3	18.6	14.8	13.6	11.1	9.0	7.9	7.8	7.5	8.1	8.7	10.6	14.4	16.5	18.2	23.0	27.0	24	27.0
24	26.1	23.0	22.2	23.0	27.1	28.0	24.3	26.1	21.4	16.1	11.8	8.1	7.1	7.1	7.0	6.8	7.6	8.1	8.1	6.8	7.2	5.6	3.1	2.3	24	28.0
25	2.0	2.2	2.2	2.3	2.6	3.3	3.1	3.1	3.4	3.7	3.2	3.7	4.3	4.2	4.7	4.7	4.9	5.5	5.9	5.7	6.0	6.5	6.7	7.0	24	7.0
26	7.6	8.3	9.4	8.5	8.3	8.3	8.6	7.2	7.0	7.7	8.5	8.4	8.4	8.8	5.9	3.3	1.9	1.2	2.0	2.5	2.4	3.3	4.7	4.1	24	9.4
27	3.5	3.4	3.3	3.3	3.0	3.0	3.3	3.2	2.8	2.4	2.4	2.4	2.6	2.7	2.8	3.0	3.0	3.3	4.0	4.3	5.8	5.7	5.3	4.8	24	5.8
28	5.0	5.9	7.2	7.7	7.1	6.6	6.8	7.6	11.1	6.7	5.9	5.2	6.5	6.2	5.4	5.5	5.6	5.6	10.2	22.9	23.6	27.8	33.3	25.0	24	33.3
29	12.6	14.3	10.5	9.7	11.7	13.8	14.2	11.9	8.4	6.5	6.5	6.6	5.5	4.2	4.1	4.3	4.7	4.8	4.5	4.5	4.6	4.9	4.9	5.2	24	14.3
30	5.6	4.0	2.6	1.5	1.7	4.2	6.9	8.6	5.9	4.2	4.1	3.7	3.4	3.1	3.2	2.8	2.4	3.1	2.7	3.6	7.1	4.1	3.3	3.2	24	8.6
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	30	28	29	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	30.1	26.9	25.5	23.0	27.1	28.0	24.3	26.1	34.2	18.3	17.4	17.6	16.5	14.8	13.4	14.0	14.3	19.4	42.2	47.9	37.2	30.1	33.3	27.0		
AVG:	12.45	12.20	11.72	11.08	11.14	11.32	11.05	10.67	10.24	8.37	7.70	7.26	7.10	6.83	6.58	6.61	6.80	7.92	10.17	11.58	12.19	12.38	12.30	12.61		

MONTHLY OBSERVATIONS: 717 MONTHLY MEAN: 9.94 MONTHLY MAX: 47.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
REPORT FOR: DECEMBER 2022
DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	3.3	3.3	3.4	3.9	4.8	3.7	3.6	3.6	3.5	3.1	2.9	2.8	2.7	2.7	2.7	2.8	3.2	5.9	8.9	14.8	13.3	15.2	13.5	14.6	24	15.2
2	18.8	18.2	14.9	15.7	14.1	13.8	13.1	9.0	6.3	6.2	6.2	5.9	6.0	6.3	7.0	8.4	8.8	9.9	10.3	10.5	9.8	10.4	9.0	8.0	24	18.8
3	7.8	8.1	7.7	8.0	7.3	7.7	7.8	8.4	8.0	6.2	8.7	6.4	4.2	5.1	6.0	6.7	7.2	8.2	8.1	8.8	10.8	9.4	10.3	10.4	24	10.8
4	10.0	11.4	10.9	10.2	20.5	10.0	10.5	11.2	9.7	9.5	9.5	9.1	9.4	8.8	9.1	10.6	12.1	12.8	14.8	19.3	16.7	14.0	14.3	15.8	24	20.5
5	13.9	12.0	14.0	16.6	16.8	14.1	11.3	8.4	7.0	8.1	9.4	9.3	10.3	10.2	9.8	9.1	12.7	9.6	10.0	8.7	6.7	5.6	5.5	5.0	24	16.8
6	4.8	4.7	4.5	4.4	5.0	5.7	6.0	5.6	5.2	5.2	5.9	6.1	5.6	5.2	5.2	5.2	6.2	6.2	6.0	5.7	6.1	5.9	5.7	5.4	24	6.2
7	5.5	6.6	6.9	7.6	9.5	11.4	13.9	12.7	7.0	7.0	7.6	7.8	7.3	7.2	7.0	7.3	8.6	9.3	11.2	13.1	7.5	6.6	5.9	5.4	24	13.9
8	5.3	5.9	5.3	5.1	4.8	4.7	4.7	6.2	5.5	4.8	4.9	5.1	5.8	6.3	7.2	7.1	7.6	10.0	13.4	12.8	16.1	16.9	16.5	15.3	24	16.9
9	14.5	13.9	9.6	7.5	6.3	5.4	5.3	5.0	6.1	8.4	9.7	10.4	11.6	11.7	12.4	13.0	14.3	16.6	20.8	18.7	19.0	20.7	19.8	22.0	24	22.0
10	24.9	32.8	29.0	26.0	21.8	21.2	10.2	10.9	12.7	13.3	13.7	15.7	17.1	16.0	15.0	16.5	16.8	19.2	22.4	22.7	18.4	18.1	15.6	13.5	24	32.8
11	12.9	14.0	14.8	15.6	12.6	11.6	13.2	13.7	11.9	9.3	7.5	5.9	5.2	6.3	6.6	6.3	6.3	7.4	9.1	9.7	11.3	12.2	9.8	9.2	24	15.6
12	8.1	8.0	7.9	7.9	9.8	8.9	8.2	8.5	9.1	7.9	6.3	AZ	5.5	4.5	4.6	4.8	4.6	4.7	5.4	6.6	6.7	7.2	7.3	8.1	23	9.8
13	8.5	9.1	10.0	11.7	12.3	12.2	11.5	12.1	12.8	14.3	11.3	10.7	12.3	13.3	14.4	13.8	13.4	12.6	10.6	10.2	9.3	9.6	9.8	10.2	24	14.4
14	10.1	10.1	8.6	10.4	8.1	7.9	9.2	11.8	13.1	13.3	13.6	15.2	15.7	13.3	10.7	3.3	3.2	2.7	3.0	3.0	1.5	2.0	2.5	2.7	24	15.7
15	2.9	3.1	3.7	3.7	3.4	3.4	3.7	3.6	3.6	3.4	3.8	3.8	4.0	3.9	3.7	4.0	4.1	4.7	5.4	7.1	7.9	16.1	12.8	13.2	24	16.1
16	13.4	15.7	11.3	8.2	7.0	6.5	6.3	6.2	5.7	4.6	3.7	3.6	3.6	3.2	3.0	3.3	3.3	4.7	7.8	16.3	13.0	12.3	15.9	7.4	24	16.3
17	5.6	4.4	4.3	4.4	4.4	4.5	3.9	4.2	4.8	5.2	4.6	4.3	4.6	4.9	4.1	3.8	4.2	5.6	10.1	11.7	6.4	7.5	6.7	8.5	24	11.7
18	8.1	8.6	8.1	8.4	7.1	7.2	6.8	8.6	5.5	3.7	3.1	2.8	2.5	2.4	2.4	2.6	2.4	3.3	4.7	9.6	10.8	11.0	12.4	7.0	24	12.4
19	5.1	4.7	4.9	4.9	4.9	4.5	4.1	4.5	4.7	4.8	4.9	5.0	5.7	6.7	5.0	4.9	4.9	4.9	4.6	3.7	4.4	3.0	3.2	5.2	24	6.7
20	6.3	6.2	6.5	7.7	7.8	8.1	6.9	4.5	4.8	6.3	6.7	6.5	5.7	5.1	4.7	4.4	4.0	3.7	4.7	5.8	5.4	4.8	4.5	4.5	24	8.1
21	5.0	5.5	5.8	4.9	5.9	6.6	5.9	5.1	4.6	5.0	5.0	4.7	4.3	4.1	3.5	3.7	3.9	4.0	5.0	4.9	5.2	5.5	5.5	6.4	24	6.6
22	5.4	6.1	5.5	5.1	4.5	4.5	3.7	3.0	3.3	3.5	4.7	4.6	3.4	3.9	4.0	4.2	5.7	5.7	5.9	5.5	3.8	4.6	4.0	3.2	24	6.1
23	4.9	5.4	5.0	4.8	4.5	3.9	3.0	3.4	3.3	2.8	2.7	2.8	3.1	3.3	3.2	3.1	3.6	3.8	3.3	2.9	3.0	3.0	3.2	3.3	24	5.4
24	3.3	3.3	3.1	3.2	3.4	3.2	3.1	3.4	3.3	3.0	2.8	2.8	2.8	2.6	2.6	2.6	2.9	4.6	5.0	4.8	6.1	4.9	4.2	3.6	24	6.1
25	3.9	3.6	3.8	3.2	3.1	3.3	3.5	4.0	3.3	3.3	2.8	2.8	2.0	2.0	2.2	2.4	2.8	4.7	13.2	13.5	17.7	22.4	26.0	8.5	24	26.0
26	8.9	11.0	18.1	16.2	13.3	13.5	11.7	11.9	13.6	7.0	4.9	4.4	3.9	3.9	3.9	3.6	3.9	7.9	6.9	6.1	6.6	8.6	9.1	12.1	24	18.1
27	12.4	12.1	11.9	11.7	12.6	11.8	15.2	16.6	19.9	25.3	30.8	19.4	8.7	6.7	5.6	5.7	5.5	7.8	11.8	16.0	19.5	22.7	19.1	18.2	24	30.8
28	19.5	20.5	19.3	17.2	16.9	33.1	33.7	34.8	21.4	11.1	AZ	AZ	3.8	3.2	3.1	3.4	4.2	7.0	9.9	7.5	7.3	7.6	7.2	7.5	22	34.8
29	7.4	7.1	7.2	7.2	6.8	6.6	5.4	5.2	5.3	4.3	4.3	4.4	4.7	5.4	6.7	3.6	8.3	10.8	5.1	5.1	5.2	5.5	5.3	5.2	24	10.8
30	5.0	4.9	4.8	4.9	4.6	4.6	4.6	4.4	5.0	3.7	1.5	3.9	2.0	2.4	2.1	2.6	2.8	3.7	4.9	7.0	6.9	6.3	7.6	10.8	24	10.8
31	16.6	11.4	9.8	10.2	10.3	9.9	9.0	8.8	8.4	8.2	7.4	7.6	6.7	7.2	6.9	7.9	9.1	9.3	14.9	20.0	17.6	10.4	10.9	10.6	24	20.0
NO.:	31	31	31	31	31	31	31	31	31	31	30	29	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	24.9	32.8	29.0	26.0	21.8	33.1	33.7	34.8	21.4	25.3	30.8	19.4	17.1	16.0	15.0	16.5	16.8	19.2	22.4	22.7	19.5	22.7	26.0	22.0		
AVG:	9.10	9.41	9.05	8.92	8.85	8.82	8.35	8.36	7.69	7.15	7.03	6.68	6.14	6.06	5.95	5.83	6.47	7.46	8.94	10.07	9.68	10.00	9.78	9.06		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 8.12 MONTHLY MAX: 34.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
REPORT FOR: JANUARY 2023
DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	18.5	10.8	9.3	10.7	10.9	11.0	13.3	12.5	9.3	8.7	8.7	8.1	6.5	6.1	8.7	10.7	10.6	9.1	8.6	9.0	8.9	7.8	7.1	6.3	24	18.5
2	6.3	5.2	5.4	4.8	4.6	5.8	5.2	5.6	4.2	4.3	3.9	4.3	4.1	4.1	4.5	5.3	6.3	7.0	7.2	7.4	8.3	8.8	8.2	7.1	24	8.8
3	6.0	5.4	5.7	5.9	6.4	8.1	8.4	8.5	7.7	3.4	6.8	7.3	6.3	5.5	7.5	7.5	7.6	8.2	9.1	9.3	8.9	9.3	9.2	3.7	24	9.3
4	2.8	3.3	4.3	4.5	5.8	5.8	6.5	6.9	7.3	7.2	5.4	4.3	3.4	3.1	2.9	3.3	3.2	3.9	4.3	7.6	7.1	6.0	6.9	7.2	24	7.6
5	7.6	8.3	7.1	5.4	5.4	5.1	5.0	5.7	4.8	3.6	2.9	2.7	2.3	2.6	2.3	2.3	2.1	2.7	4.0	7.6	13.3	7.6	10.4	8.0	24	13.3
6	11.8	15.6	8.1	5.9	6.3	6.4	7.0	7.1	7.2	7.2	5.2	3.6	3.1	2.9	3.5	3.3	3.7	9.8	9.0	15.4	19.0	17.2	13.6	11.6	24	19.0
7	11.4	13.6	14.4	10.4	7.4	7.9	7.7	7.8	9.7	9.5	6.8	3.3	3.3	3.3	3.2	3.4	3.4	5.6	5.1	4.5	5.2	5.0	4.4	4.7	24	14.4
8	4.2	5.5	5.4	4.6	3.4	3.3	3.2	3.7	5.0	5.1	3.7	2.4	2.3	2.8	2.5	2.4	2.7	2.9	4.1	3.7	6.2	6.4	6.4	7.1	24	7.1
9	8.2	8.1	8.5	9.1	9.5	9.8	9.8	10.6	11.0	10.1	6.4	4.9	AZ	3.3	3.8	3.5	3.4	3.9	6.0	8.7	9.6	12.1	13.3	17.6	23	17.6
10	17.3	16.9	16.6	14.2	40.1	18.6	18.0	12.1	10.6	15.9	9.1	5.3	4.8	5.4	5.9	6.5	7.5	7.7	7.6	9.1	8.5	7.8	7.3	6.3	24	40.1
11	6.1	6.3	6.7	8.1	8.6	7.6	7.3	7.5	7.5	8.1	8.2	8.3	7.9	8.0	7.4	6.6	6.3	6.3	7.2	6.9	6.1	6.5	6.8	5.7	24	8.6
12	4.7	4.1	3.8	3.7	4.4	5.0	4.1	4.4	5.3	4.9	4.2	4.9	7.7	7.7	5.4	7.6	10.9	10.9	8.3	8.1	8.6	7.1	3.7	3.7	24	10.9
13	3.7	4.6	6.9	10.1	9.4	8.5	8.1	7.6	6.8	5.9	4.9	4.1	3.7	4.1	4.6	4.1	4.1	5.5	6.7	6.0	5.2	4.6	4.6	5.0	24	10.1
14	5.4	5.4	5.4	4.8	4.8	4.7	4.7	5.0	5.6	5.4	5.3	5.0	4.6	4.2	4.1	3.8	4.0	4.5	8.7	30.4	35.0	41.8	42.4	47.8	24	47.8
15	37.3	30.8	29.7	26.7	15.2	13.2	13.4	14.9	14.9	11.4	9.3	8.6	6.2	8.1	8.1	7.6	6.3	8.1	9.1	11.2	8.3	7.8	8.6	8.3	24	37.3
16	5.9	5.6	5.7	6.9	6.7	5.9	7.1	6.8	6.4	5.6	6.6	4.6	4.1	3.4	4.0	4.5	4.9	4.3	3.9	5.1	5.0	4.6	4.2	3.9	24	7.1
17	3.8	3.8	3.7	3.7	4.0	4.1	3.9	4.2	4.6	5.0	5.1	6.9	8.1	8.1	8.6	9.0	9.8	10.9	11.1	12.5	12.1	11.5	9.8	9.5	24	12.5
18	7.4	5.4	5.3	5.5	4.8	4.7	4.7	5.6	6.0	6.5	6.8	6.5	5.4	5.3	6.1	5.0	4.8	5.2	5.2	5.6	5.7	6.1	6.3	5.9	24	7.4
19	5.7	5.3	4.4	3.9	4.4	4.4	4.6	5.0	4.6	4.7	7.0	11.6	11.1	9.0	5.2	4.1	4.0	4.7	5.4	6.6	8.2	9.3	7.7	5.9	24	11.6
20	5.1	4.9	4.8	4.0	3.7	3.7	4.1	7.1	5.1	3.6	3.2	3.3	3.1	3.0	3.5	3.9	3.7	3.9	4.1	5.4	4.8	5.2	4.2	3.9	24	7.1
21	3.8	4.4	5.0	5.1	5.3	4.9	5.3	4.6	4.0	4.0	3.8	3.7	5.0	5.6	4.8	3.5	3.3	2.6	2.8	2.2	2.8	3.6	4.6	3.3	24	5.6
22	3.0	2.8	3.2	3.3	3.4	4.2	4.4	4.3	4.1	2.2	1.5	1.7	2.2	2.5	3.5	3.8	3.8	4.1	6.1	6.3	9.0	10.7	5.9	5.7	24	10.7
23	5.4	5.4	5.3	5.0	6.3	4.9	5.0	5.1	5.9	5.8	5.0	4.7	4.4	4.1	4.0	4.0	4.0	4.5	5.4	7.7	11.3	8.8	9.8	16.0	24	16.0
24	16.2	13.5	11.6	7.2	6.9	7.2	6.7	6.0	5.2	4.9	5.1	4.7	4.6	4.6	4.8	5.3	5.6	6.4	6.7	6.3	5.0	3.2	3.4	3.8	24	16.2
25	2.9	2.9	2.8	2.8	2.9	2.2	2.1	2.4	2.8	3.2	2.7	2.8	2.8	2.6	2.3	1.9	1.7	1.5	1.7	2.0	2.3	2.7	2.7	2.9	24	3.2
26	3.0	3.4	4.0	4.7	5.1	5.4	6.1	6.7	7.9	8.3	8.2	6.5	5.0	4.0	3.1	2.8	2.8	3.0	2.9	3.6	4.1	3.7	3.7	3.7	24	8.3
27	3.9	4.2	4.3	5.0	5.9	6.4	6.7	9.6	15.5	10.9	5.7	4.0	2.8	2.4	2.3	2.4	1.8	2.8	15.1	7.6	6.3	7.2	6.7	8.4	24	15.5
28	9.7	10.4	12.0	19.7	16.2	12.3	12.3	11.8	10.9	5.5	2.9	2.0	2.4	2.8	4.1	5.5	8.0	8.6	32.9	10.0	7.7	7.2	6.2	7.2	24	32.9
29	9.0	7.3	8.0	8.1	7.2	7.5	7.2	6.7	6.3	6.4	6.6	7.1	6.4	6.1	7.0	5.9	5.0	3.5	2.9	2.8	3.0	2.7	2.5	2.0	24	9.0
30	1.8	1.6	1.4	2.3	2.8	2.8	3.6	4.9	4.6	5.4	5.9	4.8	3.6	3.9	4.1	4.2	5.0	5.1	5.9	9.4	13.0	14.2	13.8	13.9	24	14.2
31	12.0	11.6	10.5	9.5	8.9	9.5	8.3	9.4	10.5	8.0	4.4	3.4	4.4	4.6	5.8	5.9	6.8	6.6	5.7	9.1	11.0	7.1	2.8	1.9	24	12.0
NO.:	31	31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31		
MAX:	37.3	30.8	29.7	26.7	40.1	18.6	18.0	14.9	15.5	15.9	9.3	11.6	11.1	9.0	8.7	10.7	10.9	10.9	32.9	30.4	35.0	41.8	42.4	47.8		
AVG:	8.06	7.63	7.40	7.28	7.64	6.80	6.90	7.10	7.14	6.47	5.53	5.01	4.72	4.62	4.76	4.83	5.07	5.61	7.19	7.97	8.69	8.50	7.97	8.00		

MONTHLY OBSERVATIONS: 743 MONTHLY MEAN: 6.71 MONTHLY MAX: 47.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

SITE ADDRESS: 205 Bay Street

URBANIZED AREA: (3285) HATTIESBURG, MS

UTM NORTHING:

SITE COMMENTS:
MONITOR COMMENTS:

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: FEBRUARY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
HOUR

MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	1.6	2.0	2.1	3.5	3.3	3.5	3.1	3.0	2.9	AZ	3.8	3.7	3.5	3.0	2.9	3.3	3.4	3.7	3.8	5.1	6.2	5.2	5.9	4.6	23	6.2
2	4.2	4.9	5.7	5.0	3.4	4.0	4.4	3.7	3.2	3.3	4.1	4.6	4.9	2.2	1.1	.7	.9	1.6	1.1	1.2	2.0	1.4	1.1	1.2	24	5.7
3	1.2	1.5	1.5	2.1	2.6	2.7	3.6	4.4	5.7	7.2	7.6	6.5	6.3	5.0	4.7	4.5	3.8	3.3	3.1	3.2	3.7	4.6	3.7	3.5	24	7.6
4	3.9	4.9	4.6	4.9	4.8	5.3	7.7	5.9	6.2	5.9	4.7	3.9	3.4	3.3	2.9	2.6	2.7	2.6	7.9	22.8	8.0	6.0	7.3	8.0	24	22.8
5	10.5	11.9	15.7	17.1	14.4	18.0	20.1	34.8	18.2	7.2	5.8	3.8	3.3	2.7	2.8	3.3	4.3	5.6	7.3	12.7	17.8	18.6	22.5	20.4	24	34.8
6	21.3	19.6	19.6	20.6	19.4	17.0	14.1	15.9	16.8	13.0	10.9	9.0	8.1	8.0	10.5	10.1	5.8	7.1	8.4	8.1	15.6	13.3	17.2	17.0	24	21.3
7	20.6	19.3	20.1	19.5	22.9	22.4	20.8	20.7	14.6	8.5	6.9	7.0	8.9	7.3	8.2	8.0	4.8	5.1	6.5	6.2	7.0	8.4	10.4	11.9	24	22.9
8	10.4	6.9	5.4	6.9	7.1	5.9	5.9	7.9	9.5	7.7	7.7	8.2	7.3	6.7	7.6	7.9	8.5	9.0	9.3	8.3	8.3	8.3	7.6	5.6	24	10.4
9	1.9	2.0	2.0	2.4	3.0	3.7	3.5	3.7	3.5	3.1	2.9	2.9	2.8	2.6	2.6	3.3	3.4	3.5	3.8	4.1	4.9	5.3	5.7	5.0	24	5.7
10	4.5	3.7	3.4	3.6	3.0	3.0	3.0	3.0	2.7	2.3	2.3	2.0	2.0	2.5	2.8	2.9	2.8	3.7	3.9	3.7	3.8	5.1	4.5	5.7	24	5.7
11	5.1	4.9	4.6	4.6	7.4	4.5	4.7	5.0	6.1	7.3	7.6	8.5	8.7	8.5	8.3	5.7	4.4	2.9	2.4	2.6	1.3	2.4	3.3	4.9	24	8.7
12	5.7	6.8	6.2	5.0	4.4	3.6	3.3	3.2	3.0	2.8	2.4	1.7	1.4	1.3	1.3	1.4	1.5	2.1	2.7	5.3	8.9	13.2	13.5	11.6	24	13.5
13	11.2	9.4	9.7	7.9	6.5	5.8	6.2	8.1	23.6	12.3	4.5	BL	AZ	3.1	3.9	4.4	5.3	8.0	9.1	21.7	37.2	11.3	10.5	10.7	22	37.2
14	10.3	8.7	8.1	8.5	8.5	8.1	6.3	7.0	5.4	4.0	3.1	2.8	2.5	3.2	2.9	3.3	3.4	3.5	3.6	3.9	4.1	4.3	4.5	4.2	24	10.3
15	4.1	3.7	4.0	4.1	4.3	4.6	4.9	4.6	4.6	4.3	4.2	4.2	4.1	4.2	4.4	5.0	6.0	6.5	7.0	6.9	6.8	7.1	7.5	7.3	24	7.5
16	7.7	8.2	8.8	9.4	10.2	11.7	13.7	13.5	9.8	8.5	7.6	10.8	12.1	11.4	9.9	8.7	6.5	9.9	10.4	10.2	8.2	3.7	3.7	3.1	24	13.7
17	2.2	1.8	2.2	2.8	3.3	4.6	4.9	4.6	4.1	3.3	3.1	3.0	2.9	2.9	2.8	2.7	2.5	2.4	2.9	3.3	3.8	4.1	4.3	3.7	24	4.9
18	3.3	3.7	3.6	3.4	3.6	3.7	3.3	3.4	3.8	3.3	2.7	2.4	2.3	2.3	2.3	2.5	2.5	2.9	4.6	6.1	6.8	6.7	9.9	9.1	24	9.9
19	5.4	4.5	4.6	4.8	5.0	6.1	6.4	8.8	6.0	6.3	5.4	4.1	3.6	3.5	3.3	3.3	3.6	4.6	7.3	9.9	10.2	7.8	11.2	9.6	24	11.2
20	9.8	10.7	7.8	6.2	6.3	5.9	5.7	5.4	5.7	5.3	5.9	8.4	5.8	6.5	6.8	4.1	5.5	4.4	5.0	6.6	7.0	8.8	8.3	7.8	24	10.7
21	7.5	7.6	7.4	7.6	7.9	7.6	7.3	7.2	7.0	6.6	6.9	AZ	6.8	6.0	5.7	6.3	6.1	6.4	7.1	7.3	7.4	7.0	7.2	6.4	23	7.9
22	6.0	5.6	5.4	5.9	7.3	7.6	7.5	7.3	7.6	8.8	9.3	10.3	9.7	9.3	9.8	8.2	8.1	8.3	8.5	11.4	16.5	15.6	17.0	17.9	24	17.9
23	23.5	22.3	12.8	9.6	9.7	9.8	10.2	9.4	8.1	7.3	8.2	9.2	9.9	11.1	12.0	12.4	12.6	12.2	13.3	12.6	14.0	21.3	14.9	11.5	24	23.5
24	11.9	11.6	11.4	10.8	10.3	12.2	11.3	10.4	6.6	5.6	5.2	5.0	5.9	7.3	8.2	7.8	9.3	11.1	13.2	17.3	14.6	11.7	11.6	11.2	24	17.3
25	11.7	12.1	12.2	12.9	12.4	15.7	16.2	14.4	13.8	14.2	12.2	10.7	10.6	11.0	11.2	13.1	13.5	16.6	16.6	17.3	17.6	18.4	15.8	13.3	24	18.4
26	15.3	17.9	15.1	11.9	11.8	12.8	13.2	13.2	12.7	14.0	14.6	13.1	11.8	13.1	12.7	11.2	11.0	11.5	11.6	9.8	7.5	6.3	6.3	6.8	24	17.9
27	7.1	7.4	7.7	8.3	9.4	10.2	11.5	11.1	10.8	10.0	9.8	9.8	9.6	10.2	10.3	11.0	11.9	11.9	11.3	11.8	13.3	12.2	10.9	11.6	24	13.3
28	12.1IM	12.1IM	12.3IM	11.5IM	11.9IM	12.7IM	12.2IM	13.8IM	21.9IM	23.7IM	19.9IM	16.8IM	15.7IM	20.0IM	26.5IM	46.0IM	45.3IM	25.2IM	20.9IM	21.1IM	20.5IM	20.8IM	21.0IM	17.2IM	24	46.0
29																									0	
30																									0	
31																									0	
NO.:	28	28	28	28	28	28	28	28	28	27	28	26	27	28	28	28	28	28	28	28	28	28	28	28		
MAX:	23.5	22.3	20.1	20.6	22.9	22.4	20.8	34.8	23.6	23.7	19.9	16.8	15.7	20.0	26.5	46.0	45.3	25.2	20.9	22.8	37.2	21.3	22.5	20.4		
AVG:	8.57	8.42	8.00	7.89	8.00	8.31	8.39	9.05	8.71	7.62	6.76	6.63	6.44	6.36	6.73	7.28	7.12	6.99	7.59	9.30	10.11	9.25	9.55	8.96		

MONTHLY OBSERVATIONS: 668 MONTHLY MEAN: 8.01 MONTHLY MAX: 46.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

SITE ADDRESS: 205 Bay Street

URBANIZED AREA: (3285) HATTIESBURG, MS

UTM NORTHING:

SITE COMMENTS:
MONITOR COMMENTS:

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: MARCH 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	19.2	22.3	18.0	14.2	13.0	13.9	12.4	12.8	12.7	10.8	9.3	8.9	8.9	9.7	10.8	8.7	7.9	7.4	7.9	9.0	8.4	9.3	9.2	9.6	24	22.3
2	9.7	9.7	9.8	11.7	11.8	10.4	10.3	10.7	10.3	9.3	8.8	8.2	7.6	7.5	7.5	7.4	7.8	9.2	10.3	10.1	10.5	10.8	10.6	11.0	24	11.8
3	10.5	10.4	9.6	9.7	10.3	10.1	10.4	10.7	11.5	13.5	14.2	9.0	6.5	5.8	5.2	4.3	4.1	3.3	4.2	4.2	4.2	4.8	4.7	4.7	24	14.2
4	4.7	5.0	5.2	5.4	5.7	5.9	8.3	7.3	7.0	5.5	5.0	5.5	5.3	5.1	7.3	7.0	9.7	7.2	10.3	12.9	15.8	23.8	19.3	23.4	24	23.8
5	27.7IM	22.4IM	26.1IM	22.7IM	28.4IM	28.9IM	28.1IM	23.9IM	14.0IM	8.0IM	5.8IM	6.6IM	9.9IM	9.8IM	10.0IM	10.0IM	10.7IM	15.0IM	27.6IM	34.4IM	24.1IM	31.6IM	31.3IM	28.5IM	24	34.4
6	27.1IG	27.0IG	36.2IG	34.9IG	53.3IG	45.1IG	42.8IG	28.8IG	37.1IG	26.2IG	16.1IG	11.0IG	12.0IG	15.1IG	AZ	36.8IG	33.8IG	14.3IG	11.0IG	11.6IG	12.3IG	11.1IG	10.8IG	14.6IG	23	53.3
7	18.7IG	19.7IG	14.9IG	15.3IG	17.0IG	16.7IG	16.6IG	17.4IG	18.1IG	18.4IG	19.6IG	20.1IG	20.7IG	19.5IG	19.0IG	23.3IG	23.4IG	18.7IG	19.5IG	22.7IG	22.9IG	22.7IG	23.7IG	25.3IG	24	25.3
8	27.4IG	26.5IG	28.1IG	30.1IG	34.4IG	35.0IG	35.5IG	34.2IG	35.0IG	36.1IG	35.9IG	32.5IG	32.0IG	33.1IG	25.7IG	28.1IG	40.4IG	36.8IG	27.1IG	28.0IG	25.1IG	21.3IG	26.4IG	26.3IG	24	40.4
9	25.9IG	26.8IG	27.0IG	29.4IG	29.4IG	30.4IG	33.0IG	30.8IG	31.1IG	26.5IG	21.8IG	18.9IG	15.5IG	14.2IG	14.5IG	15.2IG	16.0IG	17.4IG	21.9IG	21.2IG	19.3IG	19.2IG	21.5IG	21.5IG	24	33.0
10	19.5	17.0	17.3	18.3	19.7	20.6	20.5	20.8	16.2	11.1	5.9	3.5	2.9	3.8	3.8	3.9	5.3	3.8	4.9	5.6	6.4	7.4	8.2	8.1	24	20.8
11	8.2	7.1	6.5	6.5	8.3	9.3	7.3	6.0	5.4	5.9	6.7	8.2	9.5	10.8	11.2	10.7	11.9	10.6	10.7	10.4	12.9	10.3	11.2	11.7	24	12.9
12	10.7	10.7	11.7	11.6	11.7	11.8	12.4	11.8	3.5	4.2	4.2	4.1	4.3	4.6	3.7	3.7	4.5	3.2	3.3	3.3	5.4	5.9	5.4	5.8	24	12.4
13	5.6	5.2	4.7	4.4	4.6	5.0	5.4	5.4	4.9	4.9	4.6	4.7	4.1	4.4	4.7	4.1	3.7	3.7	3.3	3.4	3.4	3.1	3.3	3.3	24	5.6
14	3.6	4.1	4.7	5.2	5.7	6.6	7.3	7.9	7.4	6.4	5.8	6.3	6.0	5.1	5.0	4.7	4.9	4.8	5.1	6.0	6.8	10.8	12.9	12.6	24	12.9
15	11.7	10.8	8.7	8.2	7.9	7.5	8.4	10.9	9.1	7.2	6.4	6.1	5.8	5.4	5.8	5.2	5.1	5.1	8.8	21.4	14.0	11.2	16.0	14.9	24	21.4
16	28.3	35.9	30.6	26.4	26.8	36.0	52.2	44.7	27.2	18.7	7.5	5.0	4.1	4.8	5.5	5.3	11.5	5.0	4.6	4.6	5.0	5.9	4.9	4.5	24	52.2
17	4.6	4.6	4.6	4.2	4.5	4.0	3.9	5.7	5.0	4.1	4.9	1.8	1.1	1.9	2.0	2.4	2.6	3.2	3.1	3.0	3.4	3.7	4.1	4.1	24	5.7
18	4.0	3.9	3.8	3.7	3.8	3.8	4.0	4.0	4.1	5.7	3.7	3.3	3.2	3.3	3.2	3.2	3.6	3.4	4.1	4.4	4.5	4.1	4.2	4.5	24	5.7
19	6.7	5.0	4.0	4.1	4.1	4.2	4.5	4.1	4.1	3.8	3.7	3.6	3.4	3.5	3.7	3.5	3.7	3.6	3.7	4.1	4.3	4.6	4.8	5.2	24	6.7
20	4.9	5.1	4.9	5.6	7.3	5.4	5.9	7.6	7.8	6.7	6.0	6.0	6.5	6.0	5.0	4.3	4.3	4.2	4.6	5.5	15.3	17.9	11.8	12.7	24	17.9
21	18.9IM	22.2IM	26.8IM	36.3IM	33.0IM	31.9IM	30.4IM	29.3IM	25.6IM	19.3IM	19.0IM	9.3IM	15.5IM	13.2IM	8.7IM	18.9IM	24.7IM	30.2IM	50.4IM	50.0IM	32.6IM	25.9IM	25.2IM	20.3IM	24	50.4
22	15.4	14.9	15.3	15.0	15.3	16.6	18.6	13.3	11.7	7.5	8.1	7.4	10.4	8.8	10.7	12.4	8.9	6.7	6.2	6.3	6.4	6.3	6.3	13.3	24	18.6
23	40.3	35.7	27.7	21.0	18.3	20.5	20.9	21.0	15.4	AZ	5.8	5.6	5.7	6.5	5.8	6.7	6.7	6.7	7.8	6.8	6.8	6.9	7.4	7.4	23	40.3
24	7.0	6.6	6.4	6.4	6.6	6.7	6.8	7.5	7.5	8.1	8.5	8.0	7.6	7.7	7.3	7.8	9.0	7.8	7.3	8.4	8.1	8.0	7.7	8.2	24	9.0
25	7.9	8.2	8.7	9.8	10.3	10.4	11.4	12.0	12.3	12.6	12.3	11.8	11.2	10.5	10.1	9.5	9.4	9.4	10.9	11.2	9.2	7.4	7.5	8.1	24	12.6
26	9.1	10.2	11.3	11.6	11.7	11.9	11.7	11.3	9.5	8.6	8.7	9.7	8.8	9.2	9.0	10.7	7.1	8.7	9.5	9.5	9.5	9.1	9.8	10.8	24	11.9
27	11.0	11.2	11.6	12.3	12.3	12.2	12.8	10.1	6.1	6.3	6.7	6.8	7.7	8.4	8.8	9.6	9.7	10.4	11.7	11.9	12.6	13.1	11.7	11.3	24	13.1
28	10.6	9.8	8.9	8.9	8.6	9.4	10.3	9.2	8.5	7.8	7.4	7.5	9.2	10.7	9.1	9.1	9.0	8.8	7.8	8.1	8.7	7.9	7.9	10.2	24	10.7
29	9.2	8.1	7.6	7.4	6.5	6.3	6.4	6.6	6.2	5.4	5.1	5.1	4.8	5.2	5.4	5.2	5.5	5.0	5.4	6.2	7.4	8.4	8.6	10.2	24	10.2
30	12.2	11.1	9.4	8.1	8.5	9.4	11.2	8.3	7.4	8.0	9.5	7.7	6.5	6.6	6.7	6.8	9.3	6.9	8.4	10.3	8.4	9.5	10.2	11.1	24	12.2
31	10.8	11.1	11.6	12.2	11.6	12.4	12.8	11.9	11.5	10.3	9.0	8.7	8.0	7.7	7.7	7.9	8.3	8.6	9.0	9.6	9.6	9.5	9.4	9.3	24	12.8
NO.:	31	31	31	31	31	31	31	31	31	30	31	31	31	31	30	31	31	31	31	31	31	31	31	31		
MAX:	40.3	35.9	36.2	36.3	53.3	45.1	52.2	44.7	37.1	36.1	35.9	32.5	32.0	33.1	25.7	36.8	40.4	36.8	50.4	50.0	32.6	31.6	31.3	28.5		
AVG:	13.91	13.82	13.60	13.57	14.53	14.78	15.56	14.39	12.68	10.90	9.55	8.42	8.54	8.64	8.10	9.56	10.40	9.33	10.66	11.75	11.07	11.34	11.48	12.02		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 11.61 MONTHLY MAX: 53.3

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: APRIL 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	9.4	9.6	10.0	11.3	11.5	12.4	12.2	10.0	12.6	13.7	16.9	15.8	13.6	12.5	13.7	13.7	11.3	8.9	7.6	7.2	7.6	7.6	8.9	10.2	24	16.9
2	10.5	10.3	10.3	10.5	10.2	9.9	10.1	8.6	5.8	5.0	4.9	4.5	4.5	4.8	9.4	5.5	6.1	5.7	7.4	10.2	13.5	13.0	9.6	7.8	24	13.5
3	7.7	8.7	11.1	10.3	10.0	10.5	11.2	12.4	12.7	12.0	11.3	10.6	10.4	9.9	9.8	9.7	9.3	9.8	11.4	12.4	12.4	11.6	11.8	12.1	24	12.7
4	12.5	12.3	11.9	11.7	12.1	12.9	14.0	11.1	9.6	8.5	9.2	9.9	9.9	9.6	9.3	9.4	10.0	10.3	10.3	11.0	11.2	11.1	11.6	11.3	24	14.0
5	11.4	10.0	10.1	9.9	9.9	10.8	15.4	13.1	9.9	9.4	8.9	9.0	8.9	8.4	8.3	8.8	9.0	9.1	9.5	8.8	8.2	10.8	9.7	9.6	24	15.4
6	9.0	8.5	8.8	8.6	8.9	9.7	10.4	10.6	10.9	10.1	10.2	9.3	5.9	11.1	8.7	9.4	7.0	7.2	6.1	5.5	5.2	5.6	7.2	8.5	24	11.1
7	8.3	5.7	7.1	7.6	8.3	6.0	4.5	4.3	4.1	4.0	4.3	4.8	5.8	5.9	5.0	12.4	5.9	6.5	4.3	3.3	3.9	3.7	3.5	4.1	24	12.4
8	4.6	5.4	3.9	2.8	2.0	1.3	1.3	2.9	3.3	3.2	4.6	4.6	4.1	5.0	5.1	5.1	4.6	4.1	4.1	6.2	5.0	3.4	2.9	1.9	24	6.2
9	1.5	1.4	1.2	1.5	2.4	2.5	1.4	.8	2.4	3.3	4.1	4.5	4.3	4.6	4.3	4.3	4.4	4.8	4.4	4.2	4.6	4.6	6.3	7.0	24	7.0
10	7.8	7.2	10.1	8.0	6.7	4.9	4.6	4.6	4.7	5.0	5.3	4.1	3.3	3.6	3.8	3.8	3.9	4.3	4.2	3.5	3.7	12.5	5.7	5.1	24	12.5
11	5.9	4.6	5.8	7.6	8.5	8.4	9.1	11.0	8.7	7.0	6.1	5.8	5.3	6.6	7.0	4.9	29.6	32.9	25.2	19.3	13.4	17.6	21.5	16.9	24	32.9
12	12.6	7.8	7.7	7.4	7.9	8.1	9.0	9.3	11.4	7.5	6.4	5.9	8.0	17.1	10.7	7.8	7.0	6.4	7.2	7.2	7.8	7.8	8.1	8.2	24	17.1
13	8.1	8.6	8.1	7.6	7.4	8.1	7.9	6.0	5.3	4.6	3.7	3.2	3.7	4.8	5.3	5.2	6.3	7.0	6.9	7.5	7.7	9.2	8.0	7.3	24	9.2
14	7.1	7.0	7.5	8.5	10.0	9.5	9.4	8.3	9.1	8.7	8.4	9.1	9.2	9.4	9.4	8.7	8.5	8.6	9.5	9.8	6.2	5.4	5.2	5.1	24	10.0
15	5.9	6.9	9.5	11.1	9.9	8.4	8.1	11.5	7.1	4.4	3.8	4.7	3.6	2.5	2.8	2.6	1.8	2.4	3.7	4.4	3.7	3.0	3.2	3.7	24	11.5
16	4.5	5.9	3.5	3.3	3.3	3.6	4.6	6.3	6.0	7.4	4.5	4.1	3.3	3.3	3.2	3.3	3.3	3.3	3.5	5.5	4.1	4.1	4.7	6.5	24	7.4
17	6.7	5.7	5.6	5.4	5.9	5.4	6.3	6.1	5.6	5.0	AZ	3.8	3.9	3.7	3.7	3.7	4.2	4.2	4.7	5.8	7.3	11.0	11.5	13.3	23	13.3
18	14.7	12.9	9.7	9.3	10.4	8.8	11.5	12.4	17.8	10.0	8.4	8.1	7.3	6.8	8.9	13.5	8.6	7.8	13.2	13.3	18.1	19.1	17.7	17.9	24	19.1
19	18.1	15.5	14.6	17.8	33.5	29.0	22.8	19.5	13.7	10.4	9.6	9.8	9.9	9.3	8.9	9.3	10.6	10.6	9.4	9.0	16.8	12.8	10.5	13.0	24	33.5
20	16.5	27.0	22.3	25.9	36.6	26.2	18.7	14.5	18.7	14.9	8.9	8.0	7.8	7.1	7.0	6.6	7.0	7.6	7.8	9.5	10.1	9.6	9.6	10.4	24	36.6
21	10.6	7.8	6.3	6.3	7.8	7.3	6.8	8.7	6.8	7.1	6.6	7.0	7.6	36.6	29.9	6.5	6.5	6.7	7.1	9.5	6.9	7.3	3.3	2.1	24	36.6
22	2.4	2.1	3.1	3.6	3.5	3.7	3.7	3.8	3.9	3.6	3.6	3.7	3.7	4.0	4.4	4.6	4.4	4.7	6.9	6.8	9.3	8.5	11.2	15.9	24	15.9
23	17.5	12.2	9.3	9.3	8.8	8.5	8.8	6.3	5.4	5.6	5.2	5.4	5.4	5.6	6.7	6.1	6.4	6.4	5.0	5.0	5.3	5.0	4.7	5.0	24	17.5
24	5.5	5.8	6.4	6.1	6.5	6.7	6.0	6.4	5.9	5.3	5.0	6.9	11.7	5.6	5.9	5.8	6.1	6.1	5.6	6.4	7.6	8.7	8.2	7.9	24	11.7
25	9.6	10.4	11.7	10.8	11.5	11.3	10.9	10.8	10.2	11.1	12.8	14.4	12.5	12.0	11.0	10.9	10.7	11.8	12.6	14.3	15.7	18.2	18.5	17.8	24	18.5
26	15.0	13.6	13.0	13.0	13.4	15.0	16.6	15.3	16.0	16.4	15.5	13.1	12.8	11.6	11.1	11.3	9.9	7.4	7.1	7.5	8.0	8.6	10.4	10.6	24	16.6
27	10.2	10.1	12.0	12.4	13.0	4.6	3.2	4.0	4.7	4.8	5.4	5.0	4.2	3.3	3.7	3.9	5.5	4.8	4.9	4.6	4.0	4.1	4.5	4.6	24	13.0
28	4.8	4.8	5.2	5.3	6.0	6.4	7.5	7.8	6.8	6.4	6.7	6.3	6.2	5.8	5.5	5.8	5.8	5.7	6.2	7.6	9.5	11.3	10.4	10.6	24	11.3
29	11.0	12.3	11.2	11.9	9.2	9.3	10.4	10.6	10.5	12.9	11.6	10.3	10.0	9.4	7.5	7.4	5.1	5.0	5.3	5.7	5.1	3.1	3.2	3.8	24	12.9
30	3.2	3.9	4.6	5.9	8.9	9.0	7.4	6.8	6.0	5.7	5.4	5.3	5.1	4.5	4.0	4.0	3.8	3.9	4.3	4.9	19.8	35.8	29.8	9.7	24	35.8
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	18.1	27.0	22.3	25.9	36.6	29.0	22.8	19.5	18.7	16.4	16.9	15.8	13.6	36.6	29.9	13.7	29.6	32.9	25.2	19.3	19.8	35.8	29.8	17.9		
AVG:	9.09	8.80	8.72	9.02	10.13	9.27	9.13	8.79	8.52	7.77	7.49	7.23	7.06	8.15	7.80	7.13	7.42	7.47	7.51	7.86	8.72	9.80	9.38	8.93		

MONTHLY OBSERVATIONS: 719 MONTHLY MEAN: 8.39 MONTHLY MAX: 36.6

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: MAY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	6.2	5.9	5.9	6.3	8.1	15.6	6.7	5.7	4.3	3.7	3.7	3.7	3.5	3.5	3.9	4.5	3.9	3.6	3.6	4.1	3.8	3.9	4.6	5.0	24	15.6
2	6.0	5.7	6.1	6.8	7.7	8.3	6.3	5.8	5.5	4.5	4.8	4.1	4.7	4.6	4.7	4.5	4.5	5.0	5.4	6.0	8.2	12.4	11.4	9.6	24	12.4
3	7.8	7.4	7.6	7.4	8.2	8.6	9.7	9.9	9.8	6.8	5.3	5.3	5.1	4.6	4.5	4.3	4.2	4.1	4.8	9.6	7.4	7.2	8.3	8.3	24	9.9
4	10.6	11.2	10.6	10.7	12.4	48.2	52.0	20.3	8.5	7.4	6.6	5.9	6.1	6.5	6.6	12.0	16.2	16.2	12.1	13.3	15.3	13.6	14.3	11.9	24	52.0
5	14.9	19.8	29.4	25.2	18.0	17.5	17.0	15.6	13.5	9.7	10.8	6.4	5.4	5.6	4.0	4.2	3.3	2.9	2.8	2.9	3.0	3.1	3.3	4.3	24	29.4
6	4.8	5.8	7.4	7.5	8.6	10.5	11.0	11.9	12.1	11.2	10.7	9.3	5.4	3.4	2.8	2.6	2.8	2.8	3.2	4.0	5.2	6.4	7.6	8.1	24	12.1
7	7.6	8.1	8.6	7.9	8.1	7.6	7.6	8.6	8.5	8.7	9.2	9.7	9.8	10.0	9.0	9.2	8.5	8.5	8.7	9.1	9.6	9.5	10.0	9.5	24	10.0
8	8.8	9.1	8.6	8.6	8.9	9.0	8.7	8.8	8.9	8.9	9.3	8.8	8.4	9.1	8.9	9.8	11.0	11.8	11.7	11.9	11.2	11.7	10.8	11.4	24	11.9
9	11.6	10.0	10.2	13.2	18.0	21.6	22.6	15.7	14.6	13.2	14.1	12.0	12.4	11.3	11.4	10.8	10.0	10.5	12.3	12.7	12.6	13.0	12.4	11.4	24	22.6
10	11.0	11.4	13.2	15.3	13.8	11.4	11.1	9.1	7.3	7.3	AZ	AZ	7.9	9.0	9.3	7.5	7.1	8.1	8.6	9.1	9.5	7.9	8.6	9.0	22	15.3
11	7.8	8.4	9.1	9.9	9.8	8.7	7.9	7.6	6.5	5.8	6.0	5.5	5.7	6.1	6.7	7.1	6.6	4.1	4.1	4.1	6.2	4.6	4.3	5.0	24	9.9
12	4.9	4.7	6.1	4.6	4.6	4.8	5.8	6.0	5.8	5.7	7.0	7.1	8.3	8.9	9.3	7.5	4.6	5.8	6.7	4.6	3.7	3.7	4.0	3.4	24	9.3
13	3.5	3.7	4.4	4.9	5.2	5.0	4.3	4.2	4.9	6.6	7.1	7.0	7.9	8.1	8.3	8.5	8.8	9.6	9.1	10.5	12.1	12.0	13.3	16.4	24	16.4
14	18.3	14.7	14.5	14.5	14.1	14.5	13.9	12.6	11.5	12.4	12.2	12.1	12.4	12.5	12.2	12.4	12.0	11.9	11.7	12.8	13.5	14.5	15.1	15.2	24	18.3
15	16.2	16.3	16.6	16.5	16.9	15.5	14.6	13.7	12.9	11.6	10.9	10.5	10.6	10.3	10.6	11.1	8.6	6.1	5.9	8.1	8.6	8.4	8.6	8.8	24	16.9
16	8.9	9.1	10.5	11.4	11.3	11.0	10.3	10.4	9.4	10.1	10.9	11.5	11.5	10.4	10.6	10.8	9.9	6.8	5.6	3.7	4.8	4.7	6.1	6.5	24	11.5
17	6.0	6.2	6.3	6.7	7.1	8.1	8.0	12.7	11.2	10.1	10.5	10.4	9.7	8.1	8.4	4.9	6.5	7.5	6.0	4.3	4.9	5.5	6.0	7.0	24	12.7
18	6.6	7.0	7.5	7.6	7.0	4.6	4.4	7.1	10.3	10.9	9.3	8.7	8.1	8.2	7.8	8.0	8.2	8.1	7.9	7.7	7.0	6.9	7.2	8.1	24	10.9
19	7.3	8.3	8.6	8.6	8.3	7.2	6.7	7.4	8.6	8.5	8.3	8.4	9.2	9.5	10.1	10.9	8.8	5.8	6.1	7.7	9.3	9.2	9.3	11.0	24	11.0
20	8.9	8.8	9.4	9.2	9.8	8.5	9.0	9.3	12.1	12.4	11.5	10.2	10.5	9.5	8.1	8.3	9.6	7.6	7.2	7.2	7.3	8.8	9.7	13.2	24	13.2
21	11.8IF	11.5IF	9.1IF	10.6IF	13.0IF	15.0IF	16.8IF	18.9IF	18.4IF	18.3IF	17.5IF	17.0IF	17.0IF	17.4IF	16.2IF	16.5IF	17.1IF	16.5IF	22.9IF	29.2IF	30.8IF	32.1IF	33.3IF	33.0IF	24	33.3
22	32.6IF	31.9IF	31.2IF	30.9IF	29.2IF	28.3IF	28.5IF	27.2IF	27.1IF	26.3IF	24.8IF	21.6IF	18.5IF	18.6IF	17.2IF	17.5IF	19.0IF	17.6IF	18.8IF	20.7IF	22.4IF	23.4IF	23.6IF	19.0IF	24	32.6
23	11.0IF	7.9IF	7.1IF	6.7IF	6.1IF	4.5IF	4.5IF	3.8IF	4.7IF	6.0IF	5.3IF	6.0IF	6.5IF	6.8IF	6.8IF	6.1IF	5.6IF	6.4IF	11.1IF	11.1IF	10.8IF	9.0IF	8.4IF	8.5IF	24	11.1
24	13.8IF	16.2IF	17.3IF	17.8IF	16.2IF	16.0IF	16.5IF	16.8IF	17.2IF	16.8IF	15.3IF	14.1IF	12.0IF	13.4IF	13.0IF	11.1IF	10.0IF	10.5IF	12.1IF	13.5IF	14.6IF	15.7IF	17.3IF	15.8IF	24	17.8
25	14.8IF	15.0IF	18.2IF	19.7IF	19.7IF	17.3IF	16.1IF	16.6IF	17.7IF	18.8IF	19.2IF	20.1IF	20.6IF	21.0IF	21.4IF	22.4IF	22.2IF	22.2IF	22.0IF	22.1IF	22.0IF	22.5IF	22.8IF	21.8IF	24	22.8
26	22.1IF	22.8IF	22.1IF	22.3IF	22.6IF	22.7IF	23.5IF	23.7IF	18.8IF	14.2IF	13.0IF	12.6IF	12.7IF	13.2IF	12.9IF	12.2IF	12.1IF	11.8IF	12.1IF	14.5IF	14.8IF	15.1IF	17.0IF	16.9IF	24	23.7
27	18.4	18.8	17.3	15.5	15.2	16.0	14.6	13.3	12.6	12.5	11.8	11.5	11.9	12.0	11.8	12.7	11.9	11.4	11.9	12.7	14.9	16.0	15.1	14.1	24	18.8
28	15.4	15.4	14.4	15.6	15.8	16.3	19.7	15.1	13.3	12.6	12.6	12.7	12.7	12.9	13.4	13.7	13.8	14.1	14.6	15.7	16.4	17.2	16.6	16.3	24	19.7
29	15.0	12.7	13.3	13.7	14.0	14.9	13.9	15.1	16.3	17.2	18.5	17.7	16.8	16.0	15.3	15.1	14.7	14.8	15.9	18.1	18.8	26.3	23.1	23.9	24	26.3
30	23.9	23.0	20.2	18.2	21.8	22.1	23.6	22.9	17.3	13.4	11.7	11.4	10.7	10.8	9.9	9.8	10.0	10.4	10.4	11.2	13.1	13.8	19.0	25.0	24	25.0
31	20.2	17.8	18.1	16.9	18.6	19.8	18.6	13.6	11.2	9.9	7.8	7.7	7.9	8.4	8.2	7.9	7.9	9.1	9.2	9.1	9.8	14.0	14.7	13.8	24	20.2
NO.:	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	32.6	31.9	31.2	30.9	29.2	48.2	52.0	27.2	27.1	26.3	24.8	21.6	20.6	21.0	21.4	22.4	22.2	22.2	22.9	29.2	30.8	32.1	33.3	33.0		
AVG:	12.15	12.08	12.55	12.60	12.84	14.16	14.00	12.56	11.64	11.02	10.86	10.30	10.00	9.99	9.78	9.80	9.66	9.41	9.82	10.69	11.34	12.00	12.45	12.62		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 11.43 MONTHLY MAX: 52.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

UTM NORTHING:

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: JUNE 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	16.6	16.0	13.5	14.1	14.2	15.3	18.7	13.1	11.4	11.3	10.9	10.8	10.3	9.5	8.6	8.1	8.6	8.5	9.4	10.1	10.2	24.3	32.9	24.1	24	32.9
2	18.4	18.2	16.3	17.1	19.0	17.0	17.0	14.8	11.7	10.0	9.7	9.4	8.9	8.9	8.7	8.5	8.6	8.6	9.2	10.7	13.3	15.4	14.7	16.0	24	19.0
3	15.6	15.7	15.4	16.4	16.1	16.5	15.5	14.4	13.2	11.3	10.9	10.6	10.5	10.6	12.2	11.3	11.0	10.5	11.0	11.7	12.8	13.2	13.6	11.8	24	16.5
4	9.8	13.5	15.1	15.1	15.0	14.8	14.3	13.5	13.4	14.3	14.7	14.0	14.1	14.8	15.2	15.3	14.9	9.4	8.9	10.0	10.9	11.3	11.2	12.7	24	15.3
5	12.4	11.7	11.7	11.6	13.9	15.2	13.9	15.4	15.1	11.2	9.9	8.5	9.9	11.8	12.4	7.2	7.5	7.3	7.5	7.4	7.9	7.7	8.1	8.2	24	15.4
6	8.6	8.5	9.3	8.9	8.7	9.6	10.0	9.0	8.1	AZ	6.4	6.2	5.9	5.6	5.0	5.1	5.6	5.7	5.6	6.2	6.5	6.8	7.0	7.0	23	10.0
7	7.8	9.5	9.4	8.6	8.8	9.7	7.8	5.8	4.8	4.8	5.6	7.4	7.0	7.8	8.1	7.4	7.7	7.8	7.8	6.1	7.0	6.7	6.7	7.7	24	9.7
8	7.6	8.0	8.2	8.9	9.7	9.9	9.8	11.6	14.5	17.6	22.6	22.0	22.7	24.0	22.8	21.0	21.1	20.7	19.1	14.2	16.1	15.1	16.4	16.8	24	24.0
9	16.8IF	15.6IF	15.2IF	16.5IF	17.5IF	17.7IF	18.2IF	18.4IF	17.9IF	17.1IF	19.0IF	20.3IF	20.5IF	22.5IF	22.0IF	20.9IF	19.7IF	18.5IF	16.8IF	17.1IF	17.8IF	17.9IF	18.7IF	22.5IF	24	22.5
10	22.3IF	22.4IF	21.0IF	22.6IF	22.4IF	23.5IF	20.4IF	20.0IF	19.0IF	19.4IF	20.7IF	22.8IF	23.2IF	22.8IF	20.2IF	13.8IF	12.6IF	13.5IF	14.4IF	11.3IF	5.2IF	5.3IF	7.6IF	8.3IF	24	23.5
11	8.3	7.9	7.3	7.8	8.2	8.5	8.8	8.7	9.0	8.6	9.0	9.6	8.4	7.8	7.3	7.2	7.1	7.3	7.4	8.3	9.0	8.8	8.5	9.0	24	9.6
12	9.6	9.7	9.7	9.8	9.7	9.7	9.3	8.8	8.5	8.7	9.2	9.2	9.1	10.0	11.4	11.7	5.4	4.9	4.5	4.5	5.7	5.8	5.9	6.2	24	11.7
13	7.1	6.1	6.7	7.2	6.6	6.6	6.6	7.0	7.5	7.7	7.2	7.8	7.5	8.7	9.1	9.1	9.8	10.0	10.1	9.6	10.0	10.7	10.4	9.1	24	10.7
14	8.5	8.2	7.9	7.4	6.8	6.7	7.3	8.0	8.9	8.9	8.6	8.9	8.7	8.6	8.6	8.8	8.9	9.7	5.6	4.1	4.5	5.7	6.2	5.5	24	9.7
15	5.9	7.3	8.2	7.7	7.9	8.1	9.3	14.0	14.9	16.4	17.4	18.6	20.4	19.6	15.5	12.1	14.1	14.1	13.8	14.1	15.3	15.5	16.7	17.1	24	20.4
16	16.4	16.6	17.0	16.2	14.8	9.8	5.1	5.4	6.0	5.7	5.6	7.5	8.9	10.4	11.4	12.5	11.4	9.4	9.6	7.8	7.1	7.1	6.4	2.1	24	17.0
17	2.8	3.3	4.9	5.0	6.2	7.0	6.0	5.5	7.7	9.6	10.8	12.4	13.1	13.0	13.3	11.4	6.1	6.9	7.5	8.2	8.5	8.1	8.1	9.1	24	13.3
18	10.5	11.8	11.8	12.1	13.8	11.2	8.8	8.0	7.6	8.1	6.9	6.4	6.5	5.0	6.9	7.9	7.0	7.0	6.7	6.0	7.0	8.1	8.2	6.7	24	13.8
19	6.2	6.4	6.6	6.6	7.0	7.7	7.3	8.2	9.1	7.7	10.3	9.9	10.2	10.4	10.8	11.0	11.1	11.8	6.4	3.5	3.6	4.2	5.1	6.1	24	11.8
20	5.8	6.1	6.5	6.9	7.3	7.5	8.3	7.7	7.2	6.7	7.0	7.2	7.2	7.0	4.4	3.9	4.5	4.9	4.8	5.2	5.8	6.8	7.3	7.6	24	8.3
21	8.5	9.0	9.2	10.0	11.8	12.1	12.1	12.3	12.2	11.4	12.1	12.1	12.8	12.1	11.3	10.6	7.8	6.3	5.9	6.1	7.2	8.2	8.1	8.5	24	12.8
22	9.8	9.5	9.4	9.9	10.1	10.5	8.8	8.0	6.8	6.4	6.4	6.3	5.9	6.0	6.8	5.6	4.2	4.1	4.7	6.0	6.7	7.0	6.7	7.2	24	10.5
23	7.5	8.4	8.5	8.7	8.9	9.2	7.5	6.5	6.8	7.7	9.1	9.7	10.2	11.6	12.1	12.4	12.1	12.6	12.4	14.0	17.5	16.8	15.6	15.2	24	17.5
24	16.2	16.6	16.1	16.6	17.2	17.1	17.5	17.7	13.7	13.3	13.5	13.6	13.7	12.6	12.9	13.3	13.3	11.6	10.8	10.7	11.1	11.9	12.1	10.3	24	17.7
25	10.5	10.6	10.4	9.7	9.2	8.7	8.2	7.0	7.0	6.8	7.0	6.9	7.4	8.5	8.7	8.4	8.3	8.2	8.8	9.4	10.8	10.9	10.9	9.1	24	10.9
26	3.3	3.9	4.1	4.2	4.6	5.0	5.2	4.8	5.6	AZ	6.6	5.9	5.8	6.0	5.9	4.8	4.3	4.2	4.2	4.2	4.5	5.3	5.9	5.9	23	6.6
27	4.5	4.6	4.8	5.4	5.9	5.7	5.5	5.7	5.4	5.3	5.4	5.5	6.9	7.8	8.3	8.0	8.8	9.6	9.5	8.7	6.5	6.5	6.1	5.9	24	9.6
28	5.4	5.9	5.7	5.6	5.8	6.0	5.7	6.2	6.0	6.0	6.4	7.2	7.2	7.5	7.5	7.3	6.6	6.6	7.0	8.3	9.5	9.6	10.2	10.2	24	10.2
29	10.1	11.4	11.1	11.5	12.7	12.2	13.1	14.5	16.2	15.3	13.4	12.9	13.1	13.6	14.0	14.3	13.9	13.7	14.3	15.5	16.7	17.4	17.9	18.5	24	18.5
30	19.1IF	18.3IF	18.8IF	18.9IF	18.3IF	19.5IF	15.3IF	12.9IF	14.8IF	17.4IF	17.8IF	17.6IF	16.9IF	17.4IF	17.0IF	17.0IF	16.3IF	16.4IF	15.8IF	16.2IF	17.6IF	17.5IF	17.1IF	17.8IF	24	19.5
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	22.3	22.4	21.0	22.6	22.4	23.5	20.4	20.0	19.0	19.4	22.6	22.8	23.2	24.0	22.8	21.0	21.1	20.7	19.1	17.1	17.8	24.3	32.9	24.1		
AVG:	10.40	10.69	10.66	10.90	11.27	11.27	10.71	10.43	10.33	10.53	10.67	10.91	11.10	11.40	11.28	10.53	9.94	9.66	9.32	9.17	9.74	10.52	11.01	10.74		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 10.55 MONTHLY MAX: 32.9

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: JULY 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	17.6IF	18.1IF	20.2IF	19.6IF	18.9IF	17.7IF	16.6IF	15.9IF	16.6IF	19.9IF	20.3IF	19.8IF	19.7IF	19.5IF	18.5IF	18.2IF	18.0IF	18.2IF	17.3IF	17.9IF	19.6IF	18.8IF	17.5IF	17.4IF	24	20.3
2	17.0	16.5	16.2	16.2	15.9	16.5	16.0	14.8	14.7	14.6	14.8	15.2	15.3	15.4	15.3	12.9	10.7	3.5	5.6	5.9	6.6	7.9	9.0	9.6	24	17.0
3	10.8	11.5	11.9	12.5	13.3	13.8	14.3	14.3	15.0	14.5	15.6	15.2	14.9	14.7	14.0	13.9	13.6	12.6	11.4	11.6	10.8	9.8	9.8	9.5	24	15.6
4	11.7	8.9	7.2	5.4	5.1	4.9	4.9	6.2	7.5	7.7	7.9	8.3	5.7	5.7	6.9	6.3	6.7	6.8	5.9	6.7	6.1	5.3	5.4	5.7	24	11.7
5	6.1	6.6	7.4	8.3	9.5	9.3	9.4	8.6	7.8	7.4	5.5	6.2	9.5	6.7	7.0	6.4	5.5	3.0	3.5	3.4	3.2	3.5	3.6	4.1	24	9.5
6	6.4	5.9	5.0	4.8	4.5	4.6	4.5	4.1	4.2	4.0	3.4	3.5	3.7	3.9	4.2	3.7	3.6	3.0	3.8	3.7	4.4	2.8	2.7	2.9	24	6.4
7	2.9	3.4	3.1	3.3	3.6	3.7	3.8	3.9	4.3	4.3	4.4	4.5	4.0	4.1	4.5	4.0	3.7	3.7	3.7	4.0	4.2	4.8	6.2	6.8	24	6.8
8	8.1	9.0	7.7	8.4	9.7	9.1	9.2	7.9	7.3	7.6	8.0	9.8	5.2	5.9	5.8	4.1	3.5	3.2	3.4	3.5	3.8	3.3	3.4	3.9	24	9.8
9	4.5	4.4	4.8	5.1	6.0	6.5	6.3	5.7	5.7	5.8	6.0	6.7	5.2	3.8	4.1	3.3	2.8	3.0	3.3	3.5	4.1	4.7	5.0	5.1	24	6.7
10	6.6	6.8	3.3	3.2	3.3	3.6	4.5	7.4	8.4	BA	BA	5.7	5.0	4.7	4.2	3.6	3.3	3.3	3.4	3.6	4.9	5.3	5.8	6.6	22	8.4
11	6.7	6.6	7.1	7.8	9.2	11.5	8.8	6.9	6.4	5.6	5.2	7.3	8.8	10.0	12.8	10.0	4.1	2.8	2.8	2.4	2.8	3.1	3.4	3.7	24	12.8
12	4.3	5.0	6.8	6.7	6.6	7.5	8.9	6.5	8.9	11.0	10.3	10.7	11.1	10.4	9.8	8.1	7.0	3.7	2.8	3.3	3.7	4.6	5.6	6.3	24	11.1
13	6.8	7.3	7.6	8.2	8.6	9.0	10.0	11.2	12.4	12.8	12.8	12.0	11.3	11.5	9.9	9.3	9.8	7.9	6.5	6.7	7.6	7.2	7.4	7.9	24	12.8
14	7.2	10.0	12.3	13.0	13.4	13.8	15.0	15.9	15.9	16.6	17.1	16.8	16.3	15.8	15.3	16.1	16.5	16.9	16.8	9.4	3.3	4.1	5.0	5.9	24	17.1
15	6.9	6.5	8.0	11.1	12.9	14.0	13.1	9.8	8.9	11.9	14.6	14.5	13.3	16.5	17.5	16.8	14.6	14.9	15.1	15.9	17.7	17.4	16.6	11.9	24	17.7
16	10.4	9.3	7.5	7.0	6.5	5.9	7.2	5.5	5.3	6.6	7.4	8.2	7.9	8.8	11.4	13.6	13.2	8.8	7.1	6.3	7.8	7.3	8.1	7.9	24	13.6
17	7.4	7.0	6.9	6.9	7.1	7.0	7.1	7.0	6.7	7.4	7.6	7.4	7.5	7.4	7.8	8.7	8.6	8.4	8.9	8.9	9.5	9.6	10.0	10.4	24	10.4
18	10.4	11.1	11.9	11.8	12.1	12.9	11.3	14.3	15.7	14.8	13.8	12.3	12.3	12.5	13.2	13.8	14.6	13.9	13.8	14.6	15.1	15.9	14.8	14.8	24	15.9
19	14.7	15.1	15.3	15.3	15.2	15.2	14.8	14.4	15.4	13.8	12.7	12.0	12.5	13.7	14.7	15.4	15.4	15.0	15.3	16.2	16.0	14.2	13.9	13.8	24	16.2
20	13.6	13.2	12.8	11.9	11.7	11.5	11.5	11.3	11.3	10.6	AZ	13.4	13.2	13.9	14.5	14.7	14.7	14.7	15.1	17.0	17.4	15.7	13.8	12.9	23	17.4
21	12.1	12.6	11.5	10.1	8.8	8.9	8.8	8.6	8.1	8.1	8.5	9.0	9.9	10.2	10.0	10.0	9.7	9.9	10.0	12.7	13.3	12.9	12.8	13.0	24	13.3
22	12.3	18.4	16.2	10.0	9.1	8.2	7.9	7.4	7.4	7.1	7.6	7.8	8.0	5.4	5.7	6.5	7.1	7.5	6.8	7.0	7.1	8.0	8.9	8.2	24	18.4
23	8.2	7.5	7.2	7.9	8.2	8.7	9.1	9.1	9.2	9.3	9.1	8.5	8.7	8.8	9.0	8.8	8.8	8.8	8.7	9.3	9.8	11.3	11.4	12.4	24	12.4
24	12.9	12.2	12.0	12.0	12.0	12.2	12.1	12.5	10.8	9.6	8.5	8.9	9.3	9.6	9.7	9.9	10.2	10.2	10.5	11.3	12.0	12.1	13.9	13.4	24	13.9
25	13.8IF	13.9IF	14.4IF	15.2IF	16.1IF	16.1IF	17.5IF	16.4IF	14.1IF	13.2IF	14.4IF	15.6IF	15.5IF	16.0IF	16.8IF	16.7IF	17.0IF	16.4IF	17.6IF	17.1IF	17.0IF	16.5IF	19.0IF	20.7IF	24	20.7
26	20.4IF	20.7IF	20.8IF	20.9IF	22.4IF	21.9IF	20.8IF	19.6IF	15.8IF	15.6IF	17.1IF	18.8IF	19.5IF	19.5IF	19.4IF	18.5IF	18.2IF	18.0IF	17.1IF	17.6IF	18.4IF	20.9IF	20.9IF	20.5IF	24	22.4
27	20.9IF	22.1IF	21.3IF	24.8IF	29.2IF	25.2IF	24.2IF	21.3IF	17.7IF	17.1IF	18.1IF	17.8IF	16.7IF	16.5IF	17.1IF	17.4IF	17.2IF	17.2IF	16.5IF	17.7IF	16.9IF	16.7IF	18.1IF	17.4IF	24	29.2
28	17.4IF	17.3IF	17.5IF	17.8IF	16.7IF	18.1IF	19.0IF	16.6IF	16.1IF	16.0IF	15.4IF	16.0IF	16.4IF	17.2IF	17.6IF	16.6IF	14.5IF	15.0IF	12.4IF	12.9IF	15.1IF	16.9IF	16.0IF	17.3IF	24	19.0
29	18.6IF	19.3IF	19.2IF	19.6IF	17.6IF	17.2IF	16.2IF	11.3IF	10.6IF	10.7IF	11.2IF	12.3IF	13.2IF	13.5IF	13.6IF	13.9IF	13.2IF	12.4IF	12.9IF	13.3IF	13.4IF	14.2IF	14.8IF	14.0IF	24	19.6
30	15.4	15.0	16.4	15.9	14.9	14.4	13.6	12.5	12.7	12.0	13.2	14.7	14.5	14.5	14.4	14.9	14.4	11.2	6.2	4.6	4.7	5.3	5.2	5.9	24	16.4
31	6.4	6.7	7.3	8.0	8.2	8.2	8.5	8.2	9.0	9.6	10.0	9.4	9.9	9.9	9.3	8.7	7.9	7.5	7.3	7.8	8.3	8.0	8.2	9.0	24	10.0
NO.:	31	31	31	31	31	31	31	31	31	30	29	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	20.9	22.1	21.3	24.8	29.2	25.2	24.2	21.3	17.7	19.9	20.3	19.8	19.7	19.5	19.4	18.5	18.2	18.2	17.6	17.9	19.6	20.9	20.9	20.7		
AVG:	10.92	11.22	11.19	11.25	11.49	11.52	11.45	10.81	10.64	10.84	11.05	11.24	11.10	11.16	11.42	11.12	10.58	9.72	9.40	9.54	9.83	9.94	10.20	10.29		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 10.75 MONTHLY MAX: 29.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

CAS NUMBER:

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM ZONE:

SITE ADDRESS: 205 Bay Street

URBANIZED AREA: (3285) HATTIESBURG, MS

UTM NORTHING:

SITE COMMENTS:
MONITOR COMMENTS:

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution
HOUR

MIN DETECTABLE: .1

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	9.8	9.3	9.4	9.8	10.1	10.1	10.8	10.7	10.5	11.2	9.2	10.4	9.6	9.7	11.5	10.4	10.1	10.0	10.1	11.3	14.3	15.8	12.3	11.0	24	15.8
2	11.8	12.0	12.2	13.1	16.3	14.2	13.6	14.6	13.5	13.9	15.5	13.2	12.9	13.8	13.3	11.8	12.4	10.7	11.8	11.9	12.6	13.2	13.3	13.9	24	16.3
3	13.8	14.3	14.7	16.4	15.3	16.0	16.4	13.5	12.1	11.5	11.7	12.3	12.6	12.9	13.3	13.7	14.0	13.7	13.7	18.6	13.9	12.5	12.4	12.4	24	18.6
4	12.4	12.7	11.4	10.0	9.4	9.7	9.1	7.0	6.4	7.4	7.5	8.9	9.7	9.3	10.7	13.0	10.8	10.6	10.3	9.5	9.9	10.5	10.8	11.9	24	13.0
5	12.8	12.5	10.5	8.8	7.7	7.4	7.0	6.3	5.8	6.2	7.6	9.1	9.6	9.6	9.2	9.2	8.9	8.9	11.8	14.7	8.4	7.4	7.5	8.1	24	14.7
6	7.9	7.8	8.4	9.0	9.1	8.6	8.1	7.5	6.9	6.4	6.1	6.2	6.3	6.7	6.5	6.4	6.5	6.8	7.3	8.7	9.6	8.8	8.7	8.7	24	9.6
7	8.3	7.2	6.5	5.5	5.1	4.9	4.8	4.5	3.9	4.1	4.2	4.6	5.0	4.9	4.9	4.9	4.6	4.6	4.9	6.7	7.3	6.7	6.3	6.4	24	8.3
8	8.7	10.3	13.2	11.8	7.4	6.7	6.7	5.9	5.4	4.3	4.8	5.1	5.2	5.1	6.5	6.1	5.7	6.1	6.7	6.6	6.7	7.4	7.7	8.1	24	13.2
9	9.2	9.6	9.4	10.1	10.4	11.0	10.3	8.1	5.4	4.4	4.5	5.0	5.1	5.0	4.5	4.5	4.8	5.4	5.4	4.9	4.2	4.0	4.2	4.5	24	11.0
10	4.6	4.4	4.4	4.8	4.7	4.8	5.1	5.0	4.5	AZ	4.9	4.7	4.9	4.8	5.4	5.7	6.0	6.6	7.0	7.4	7.9	8.8	9.1	9.5	23	9.5
11	9.2	8.8	8.1	7.9	8.6	8.9	8.7	8.1	7.4	7.2	6.8	6.2	6.3	6.5	6.3	6.4	6.3	6.5	6.3	6.6	8.1	8.3	8.9	9.1	24	9.2
12	9.3	9.2	9.3	9.3	9.4	9.5	9.6	9.6	9.3	8.9	8.1	8.0	7.9	7.5	7.6	8.7	9.5	7.1	6.5	8.1	10.4	11.1	11.9	11.7	24	11.9
13	10.9	10.6	10.7	10.9	10.8	11.0	11.2	11.1	10.7	10.5	10.5	10.5	10.7	11.3	11.8	11.3	11.2	11.4	10.3	12.7	13.6	13.0	12.9	11.7	24	13.6
14	11.7	11.2	12.8	13.5	13.2	12.7	12.5	11.7	10.7	AZ	11.0	10.5	9.9	10.1	10.4	9.3	9.0	9.5	9.6	11.6	10.5	9.9	10.3	10.5	23	13.5
15	9.6	8.8	8.7	8.8	8.9	8.8	9.4	11.5	13.3	11.9	12.6	11.2	10.6	10.3	9.6	7.5	7.7	7.5	6.6	4.8	4.0	3.5	3.6	3.8	24	13.3
16	4.3	4.8	5.1	5.7	5.8	5.9	6.5	6.7	5.8	5.2	4.9	5.0	4.8	4.6	4.4	4.5	4.2	4.2	5.2	5.4	5.5	6.0	6.8	7.6	24	7.6
17	7.3	8.3	8.4	8.3	9.8	10.4	10.6	10.2	11.1	10.6	7.9	7.1	6.6	6.7	6.8	7.1	7.9	7.5	8.0	8.0	9.6	11.9	11.1	11.3	24	11.9
18	12.5IF	17.3IF	26.8IF	25.5IF	16.0IF	12.7IF	16.3IF	18.5IF	19.1IF	13.8IF	11.0IF	10.6IF	10.6IF	11.0IF	10.8IF	11.4IF	11.6IF	11.7IF	11.8IF	13.0IF	15.1IF	17.8IF	16.3IF	16.5IF	24	26.8
19	19.5IF	21.8IF	29.0IF	35.8IF	30.3IF	30.2IF	33.9IF	21.9IF	17.0IF	17.7IF	16.6IF	16.1IF	15.6IF	14.5IF	13.9IF	12.7IF	12.1IF	11.4IF	12.0IF	13.5IF	13.7IF	14.9IF	16.5IF	17.7IF	24	35.8
20	20.0IF	21.0IF	21.1IF	18.7IF	21.8IF	24.2IF	28.6IF	30.1IF	22.8IF	12.5IF	10.6IF	12.5IF	13.5IF	15.9IF	16.1IF	14.6IF	13.0IF	12.6IF	12.9IF	12.8IF	13.4IF	15.3IF	16.2IF	20.5IF	24	30.1
21	22.6IF	20.9IF	21.7IF	22.5IF	21.2IF	19.0IF	19.4IF	16.9IF	10.8IF	9.9IF	10.0IF	11.7IF	14.2IF	14.5IF	14.5IF	15.4IF	16.2IF	18.3IF	20.0IF	22.1IF	20.9IF	20.0IF	19.8IF	21.3IF	24	22.6
22	19.2IF	19.1IF	20.2IF	19.2IF	18.7IF	18.8IF	19.2IF	19.8IF	17.0IF	17.6IF	19.7IF	19.5IF	18.7IF	18.6IF	17.4IF	16.6IF	17.9IF	17.9IF	16.4IF	15.6IF	15.7IF	17.1IF	15.9IF	14.6IF	24	20.2
23	13.9IF	14.0IF	14.2IF	14.9IF	15.8IF	16.8IF	18.2IF	19.0IF	18.5IF	18.0IF	18.5IF	18.7IF	19.3IF	19.2IF	18.6IF	19.1IF	19.7IF	19.8IF	19.6IF	19.5IF	19.8IF	20.8IF	21.7IF	22.1IF	24	22.1
24	26.5IT	23.7IT	23.1IT	23.9IT	24.8IT	26.9IT	29.1IT	27.4IT	23.0IT	21.3IT	20.5IT	20.7IT	20.2IT	18.7IT	19.0IT	19.4IT	19.5IT	19.7IT	20.5IT	21.7IT	20.4IT	18.1IT	18.0IT	17.8IT	24	29.1
25	17.8IT	17.9IT	18.6IT	19.1IT	18.9IT	20.0IT	21.6IT	21.5IT	18.6IT	18.1IT	18.7IT	18.4IT	17.2IT	17.1IT	16.9IT	16.5IT	13.3IT	13.1IT	13.5IT	15.5IT	20.5IT	24.5IT	19.7IT	18.1IT	24	24.5
26	16.7IT	16.9IT	17.6IT	18.1IT	18.4IT	19.8IT	18.7IT	19.9IT	19.0IT	17.8IT	16.1IT	17.8IT	22.1IT	28.5IT	29.3IT	31.7IT	30.6IT	27.3IT	26.2IT	26.6IT	26.9IT	27.9IT	27.9IT	27.5IT	24	31.7
27	30.3IT	27.8IT	27.4IT	29.5IT	29.3IT	27.8IT	27.8IT	27.0IT	26.6IT	24.5IT	23.3IT	23.8IT	23.3IT	21.5IT	23.3IT	22.8IT	22.1IT	19.4IT	16.4IT	15.2IT	16.7IT	18.3IT	18.9IT	16.1IT	24	30.3
28	12.1	12.7	11.6	11.6	11.7	13.7	12.8	11.6	10.9	10.2	10.5	10.7	12.0	13.4	14.3	12.4	8.0	8.1	8.2	6.8	6.8	6.9	7.3	7.8	24	14.3
29	8.5	9.1	9.3	9.4	10.2	12.0	11.7	11.4	10.5	9.9	10.1	10.1	9.3	9.1	9.6	8.8	8.3	7.4	6.3	4.9	3.4	4.5	4.9	5.0	24	12.0
30	5.7	6.2	7.2	9.1	10.5	11.1	11.5	11.3	10.7	8.7	8.9	9.4	9.9	9.3	9.3	8.8	8.8	7.4	7.4	7.6	7.9	8.1	8.8	9.6	24	11.5
31	11.9	13.1	16.9	14.0	13.5	14.5	13.7	13.8	13.4	13.3	12.0	10.3	11.0	11.0	10.5	10.3	10.9	10.9	11.0	12.1	12.4	12.6	12.0	11.8	24	16.9
NO.:	31	31	31	31	31	31	31	31	31	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	30.3	27.8	29.0	35.8	30.3	30.2	33.9	30.1	26.6	24.5	23.3	23.8	23.3	28.5	29.3	31.7	30.6	27.3	26.2	26.6	26.9	27.9	27.9	27.5		
AVG:	12.86	13.01	13.80	14.03	13.65	13.81	14.29	13.62	12.28	11.62	11.11	11.24	11.44	11.65	11.81	11.65	11.34	11.04	11.09	11.75	11.94	12.44	12.31	12.47		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 12.35 MONTHLY MAX: 35.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	12.3	11.9	11.2	11.3	11.2	11.8	12.6	12.2	12.3	13.0	13.7	14.1	11.6	11.3	11.4	12.1	10.4	8.7	8.6	7.8	6.2	5.0	4.7	4.6	24	14.1
2	5.4	5.6	5.9	5.8	6.1	6.7	6.6	6.9	6.1	5.6	5.4	5.1	4.6	4.5	4.4	4.3	3.7	3.4	3.2	3.3	3.3	3.4	3.9	4.9	24	6.9
3	5.9	6.1	6.1	6.8	8.1	7.6	7.4	7.4	6.6	5.3	5.3	5.1	5.0	5.2	5.3	5.4	5.6	5.4	6.0	4.8	3.7	4.2	4.4	4.6	24	8.1
4	5.2	5.3	5.4	5.6	5.8	6.1	6.2	6.5	5.6	5.5	5.6	5.9	6.0	6.3	6.2	6.2	6.0	6.0	6.5	7.1	7.1	7.0	7.1	7.0	24	7.1
5	7.1	7.3	7.4	7.5	7.4	7.3	7.4	7.0	6.2	5.8	5.9	5.7	5.7	5.4	5.1	5.1	5.0	4.9	5.0	4.5	4.4	4.8	5.2	5.1	24	7.5
6	6.1	6.6	6.3	6.2	6.2	6.5	7.1	5.9	6.5	5.2	4.9	5.4	5.6	5.5	5.2	5.3	5.3	5.5	5.9	6.4	6.0	6.6	7.1	7.2	24	7.2
7	7.3	7.3	6.8	6.8	6.0	6.2	6.3	6.0	8.0	10.8	8.1	7.4	9.1	9.2	8.0	8.1	7.0	5.9	6.4	6.7	6.8	6.6	5.8	6.1	24	10.8
8	7.3IF	7.3IF	7.8IF	8.7IF	8.2IF	7.1IF	7.5IF	12.1IF	15.2IF	17.8IF	18.8IF	19.1IF	19.9IF	20.0IF	19.7IF	19.1IF	18.4IF	19.0IF	22.6IF	23.7IF	21.8IF	24.5IF	28.1IF	28.6IF	24	28.6
9	27.8IF	28.1IF	28.0IF	27.3IF	26.3IF	24.4IF	23.6IF	21.9IF	19.9IF	14.9IF	14.3IF	14.1IF	13.2IF	12.0IF	11.3IF	11.4IF	11.5IF	11.4IF	12.6IF	12.3IF	11.5IF	12.2IF	12.3IF	11.8IF	24	28.1
10	12.0	11.4	10.8	10.5	10.2	9.1	9.7	9.0	8.9	8.7	7.8	7.6	8.5	8.5	8.3	7.9	7.8	8.3	9.4	11.5	11.1	9.9	10.0	9.8	24	12.0
11	9.7	9.7	9.5	10.3	10.6	10.6	11.4	12.3	13.5	AZ	AZ	12.3	11.8	11.7	11.6	11.5	11.7	12.1	12.5	12.2	11.3	11.3	11.1	11.7	22	13.5
12	11.6	12.1	12.4	13.3	15.3	19.2	18.5	13.7	11.0	10.7	10.2	9.7	9.7	9.9	10.3	11.2	11.2	11.5	9.0	8.2	7.6	7.7	7.6	7.5	24	19.2
13	10.3	13.4	14.4	15.8	16.6	17.0	18.7	20.0	16.7	15.0	13.4	11.5	11.7	12.4	12.3	11.0	11.5	11.7	10.5	10.4	10.9	11.2	11.6	12.0	24	20.0
14	12.2	12.7	13.2	13.4	13.6	13.2	13.7	14.2	13.9	14.1	14.4	14.3	13.3	13.2	13.4	12.8	12.3	11.5	11.3	11.3	11.3	11.2	11.5	12.0	24	14.4
15	11.2	10.0	9.4	9.1	9.6	10.5	10.9	11.2	11.3	11.1	11.1	10.3	9.4	8.6	8.6	8.1	8.3	8.5	8.7	9.3	10.0	10.4	10.4	10.9	24	11.3
16	11.6	12.3	12.6	14.0	14.1	13.1	14.3	14.7	15.4	13.4	10.6	9.4	7.9	7.1	7.0	7.0	7.2	7.5	7.6	8.5	9.2	10.2	11.4	12.0	24	15.4
17	14.3	15.7	17.2	18.3	17.8	17.7	16.0	14.5	12.0	11.4	16.1	13.3	10.6	10.4	9.9	10.2	9.4	9.2	9.8	10.3	11.4	13.5	16.5	16.7	24	18.3
18	14.3	13.4	13.6	13.8	13.5	13.8	15.3	15.1	15.1	13.5	12.4	11.0	11.0	10.8	11.8	12.3	11.5	10.7	11.8	12.8	13.0	15.2	17.5	17.0	24	17.5
19	16.7	16.9	17.6	17.8	18.5	18.8	20.1	19.0	20.9	24.2	13.2	13.1	12.5	12.7	13.0	13.3	13.3	13.3	14.0	12.8	12.8	13.2	14.7	15.4	24	24.2
20	15.4	16.8	19.7	20.3	17.5	16.9	16.9	16.0	14.9	13.1	12.1	10.4	10.4	10.7	11.2	11.5	12.5	12.1	13.6	13.8	14.9	14.7	14.7	14.6	24	20.3
21	14.0	14.0	14.0	14.6	16.3	15.5	15.7	14.4	13.6	12.8	9.4	8.3	7.7	7.5	8.6	10.1	11.6	11.0	11.1	11.3	11.3	11.8	12.9	14.7	24	16.3
22	14.9	13.8	13.7	14.1	13.9	14.6	15.2	13.2	12.0	10.2	9.8	10.2	10.1	10.2	10.5	9.8	10.5	10.2	10.1	10.2	10.7	11.8	15.2	16.7	24	16.7
23	15.4	14.6	14.1	14.4	14.7	15.6	14.6	13.6	12.8	10.1	9.6	10.5	10.8	10.6	10.5	10.5	10.2	10.6	10.7	11.3	11.0	10.9	11.2	12.9	24	15.6
24	13.1	13.5	13.7	14.1	14.4	13.9	15.6	11.9	9.0	7.5	8.0	8.9	10.1	9.2	7.7	8.1	7.9	8.5	8.3	8.4	8.2	7.7	7.8	8.8	24	15.6
25	10.0	10.1	9.9	10.5	10.4	10.9	11.5	11.4	10.1	10.1	10.3	11.5	11.1	5.1	5.2	4.9	5.1	5.2	5.6	6.1	7.6	7.8	8.3	8.5	24	11.5
26	8.7	14.4	9.2	9.4	9.7	9.2	9.8	10.3	10.4	11.8	11.5	12.3	13.5	14.7	15.1	15.7	15.8	15.7	15.4	15.7	17.3	17.4	17.4	14.4	24	17.4
27	13.0	12.5	11.7	10.0	9.4	8.4	7.7	6.9	5.1	4.5	5.1	5.0	5.2	6.7	7.5	6.5	6.2	5.5	5.9	5.8	6.2	6.1	6.3	6.8	24	13.0
28	6.6	6.4	6.6	5.9	6.1	6.2	6.3	5.1	4.0	4.2	4.7	5.5	5.1	6.0	7.2	7.4	7.7	7.9	9.2	9.3	9.1	9.5	9.6	9.6	24	9.6
29	8.5	8.2	8.3	8.2	8.3	8.5	9.1	9.4	8.0	7.5	7.8	6.8	5.7	4.4	5.0	5.2	5.8	6.6	6.7	7.6	9.6	11.0	11.0	8.6	24	11.0
30	7.8	7.6	7.4	8.1	8.7	9.0	9.4	10.3	9.1	7.4	8.1	8.8	9.4	9.8	10.0	10.2	10.6	10.4	10.8	12.3	13.1	12.2	12.8	13.0	24	13.1
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	27.8	28.1	28.0	27.3	26.3	24.4	23.6	21.9	20.9	24.2	18.8	19.1	19.9	20.0	19.7	19.1	18.4	19.0	22.6	23.7	21.8	24.5	28.1	28.6		
AVG:	11.19	11.50	11.46	11.73	11.82	11.85	12.17	11.74	11.14	10.52	9.92	9.75	9.54	9.32	9.38	9.41	9.37	9.27	9.63	9.86	9.95	10.30	10.94	11.12		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 10.54 MONTHLY MAX: 28.6

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Dec. 9, 2024

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM:
ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: OCTOBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	13.5	13.3	13.6	12.8	13.2	12.9	12.5	11.5	9.3	7.8	6.8	5.7	5.2	5.7	5.8	5.7	5.7	6.0	6.3	7.1	7.2	8.0	8.9	9.9	24	13.6
2	9.1	8.8	9.1	8.8	8.9	8.8	8.7	8.4	6.1	4.8	4.4	4.2	4.4	4.4	4.8	4.5	4.6	4.8	5.6	5.5	6.2	7.1	8.3	7.2	24	9.1
3	7.2IF	7.2IF	7.1IF	7.5IF	7.3IF	7.8IF	8.7IF	18.6IF	23.8IF	26.2IF	23.3IF	18.4IF	13.7IF	12.6IF	13.4IF	13.1IF	13.5IF	14.2IF	15.4IF	17.3IF	18.5IF	20.1IF	19.7IF	20.3IF	24	26.2
4	19.1IF	22.2IF	22.8IF	22.3IF	21.9IF	21.8IF	21.5IF	30.2IF	38.2IF	43.8IF	43.5IF	39.5IF	37.6IF	34.9IF	33.9IF	32.4IF	32.5IF	32.8IF	34.4IF	34.2IF	33.1IF	31.6IF	30.5IF	29.9IF	24	43.8
5	30.1IF	30.2IF	29.4IF	27.8IF	28.6IF	29.3IF	33.2IF	30.1IF	28.7IF	25.9IF	20.5IF	15.4IF	13.8IF	13.4IF	13.6IF	13.4IF	13.4IF	11.6IF	11.1IF	11.9IF	12.1IF	9.0IF	9.0IF	10.1IF	24	33.2
6	9.2	9.8	11.5	13.2	17.4	17.9	16.3	10.2	9.8	11.4	13.2	10.0	8.7	9.2	10.1	8.7	6.1	7.0	13.9	7.5	7.5	15.6	10.6	9.4	24	17.9
7	9.3	9.1	8.9	7.6	10.1	7.4	6.6	4.9	4.4	4.3	4.3	4.0	4.3	4.3	3.7	3.3	2.9	3.1	4.3	4.0	4.6	3.9	3.9	3.8	24	10.1
8	4.3	4.4	3.8	3.8	4.1	4.1	4.2	4.5	4.1	3.0	2.8	2.6	2.8	2.8	2.7	2.7	2.6	3.3	4.2	6.7	7.3	8.3	10.2	10.4	24	10.4
9	9.6	9.7	6.3	6.4	8.7	8.9	9.1	8.4	10.8	6.0	4.3	4.0	3.7	3.7	3.5	3.9	4.3	4.5	5.2	5.9	6.8	6.7	6.9	6.7	24	10.8
10	6.7	7.5	7.0	7.4	9.5	11.6	12.5	14.2	AZ	AZ	10.0	10.0	10.4	14.7	11.3	10.1	10.2	10.6	12.0	12.9	15.4	16.1	12.4	11.8	22	16.1
11	13.8	13.8	12.3	11.7	11.5	12.5	12.7	12.5	9.7	8.1	5.8	4.3	2.7	1.8	2.1	2.4	2.4	2.3	2.5	2.6	1.7	1.6	1.1	.6	24	13.8
12	.7	.8	1.5	3.2	3.7	3.6	3.3	3.2	3.7	3.7	8.5	4.6	4.5	5.4	5.3	5.5	5.9	6.1	7.2	5.2	5.9	6.3	6.3	6.9	24	8.5
13	7.6	7.8	8.1	8.1	7.6	6.7	5.6	3.8	3.6	3.9	4.2	4.8	6.5	6.7	7.6	8.0	8.1	7.7	7.9	8.4	9.3	9.6	10.8	10.5	24	10.8
14	11.5	10.3	9.3	10.8	11.1	11.1	9.1	9.9	11.8	9.6	6.1	5.7	5.7	5.7	5.5	5.1	4.2	3.7	4.0	4.0	5.7	7.5	6.7	7.2	24	11.8
15	8.5	7.8	8.0	8.1	8.2	8.0	7.0	5.8	5.0	4.2	3.0	2.4	2.2	2.3	2.1	2.3	2.4	2.1	2.6	2.6	3.1	3.3	3.4	3.7	24	8.5
16	4.0	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.3	2.9	2.6	2.4	AZ	AZ	2.8	2.7	2.8	2.8	3.0	3.2	3.3	3.8	3.8	4.4	22	4.4
17	5.0	4.6	4.5	5.1	5.4	6.3	7.9	10.3	14.3	11.9	8.5	8.1	9.1	8.4	8.1	8.1	9.4	9.4	12.6	14.4	14.9	15.7	17.5	13.9	24	17.5
18	14.1	13.6	13.3	14.8	15.1	17.1	16.7	19.8	22.7	22.9	21.5	16.7	13.7	13.5	12.4	11.3	10.9	11.5	11.7	11.0	11.6	14.7	16.0	15.6	24	22.9
19	15.0	15.7	18.8	17.4	17.1	18.4	19.2	21.7	27.9	14.3	6.1	4.9	3.8	3.7	4.4	5.2	5.6	6.3	7.1	4.7	6.2	3.6	3.8	4.5	24	27.9
20	4.4	4.0	3.9	4.6	5.3	5.6	5.8	6.5	7.4	7.6	6.9	6.2	5.4	4.7	4.4	4.1	4.0	5.0	8.2	10.3	10.6	12.4	6.5	7.3	24	12.4
21	7.6	8.0	8.2	8.5	8.0	9.3	12.8	10.9	12.9	10.8	11.8	18.0	16.1	14.4	14.5	13.3	13.0	12.2	12.5	14.0	10.6	10.3	10.9	12.7	24	18.0
22	16.8	17.2	16.0	17.2	15.8	15.7	14.6	20.2	17.7	13.8	9.8	10.5	10.3	10.4	9.9	9.6	11.4	13.7	16.4	19.5	18.2	17.8	15.6	14.7	24	20.2
23	14.2	14.3	18.3	19.4	14.6	16.0	19.0	19.5	22.1	20.7	17.9	17.5	18.9	15.3	18.4	16.5	13.4	14.1	15.2	20.4	21.7	20.5	19.4	20.3	24	22.1
24	23.2	30.9	31.4	29.9	28.2	26.7	23.6	15.3	13.3	11.4	14.6	12.6	8.5	8.2	9.5	10.8	9.0	8.3	14.8	9.5	8.7	7.6	11.6	30.0	24	31.4
25	26.2	19.1	16.8	17.8	13.7	7.8	7.8	7.6	8.3	6.7	7.0	7.6	8.4	8.0	8.1	8.0	6.7	7.1	7.3	9.1	8.0	7.4	7.2	12.2	24	26.2
26	12.6	10.6	10.5	9.6	8.8	11.2	9.9	8.7	7.7	7.2	7.1	6.4	6.3	6.7	8.0	9.5	7.6	9.3	11.9	12.0	7.8	6.6	7.4	7.5	24	12.6
27	7.2	7.2	9.4	8.4	4.7	4.4	4.7	5.6	6.7	6.2	6.6	6.1	5.6	5.7	5.5	5.6	5.8	5.8	6.4	8.5	7.9	8.0	8.5	8.3	24	9.4
28	10.1	9.5	11.9	11.6	6.1	5.4	4.0	4.1	4.5	5.7	6.1	6.3	6.0	6.4	6.0	5.7	6.2	6.5	7.1	8.5	8.4	7.5	8.3	7.9	24	11.9
29	7.4	7.3	8.1	11.1	11.2	11.5	12.8	13.1	17.8	15.0	7.2	5.1	4.7	4.7	4.8	4.8	6.1	10.9	7.1	5.9	5.8	5.9	6.1	6.5	24	17.8
30	4.9	3.8	4.0	6.2	6.5	4.9	6.4	9.1	8.2	6.4	5.9	5.5	5.6	5.4	4.8	3.3	2.4	2.7	3.1	3.1	3.3	4.2	5.0	6.3	24	9.1
31	5.9	5.0	6.0	9.6	10.4	10.2	10.9	9.2	7.7	AZ	AZ	5.6	5.3	4.8	4.7	4.6	3.9	3.7	4.2	7.3	5.0	5.2	5.1	5.4	22	10.9
NO.:	31	31	31	31	31	31	31	31	30	29	30	31	30	30	31	31	31	31	31	31	31	31	31	31		
MAX:	30.1	30.9	31.4	29.9	28.6	29.3	33.2	30.2	38.2	43.8	43.5	39.5	37.6	34.9	33.9	32.4	32.5	32.8	34.4	34.2	33.1	31.6	30.5	30.0		
AVG:	10.93	10.88	11.08	11.43	11.17	11.18	11.32	11.66	12.38	11.25	10.01	8.87	8.46	8.26	8.12	7.88	7.65	8.04	9.20	9.59	9.56	9.87	9.72	10.51		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 9.96 MONTHLY MAX: 43.8

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE -89.2922
:UTM
ZONE:

UTM NORTHING:

UTM EASTING:
ELEVATION-MSL:
0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: NOVEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	5.6	6.0	6.3	6.3	6.1	6.0	6.6	6.5	6.3	5.9	5.4	4.8	4.5	4.3	4.2	4.4	4.9	5.0	5.7	6.7	6.4	6.5	7.1	7.6	24	7.6
2	10.8	8.1	8.0	8.2	8.3	9.6	10.5	10.7	8.9	7.0	6.2	5.8	5.8	5.7	5.4	5.4	5.2	6.1	6.8	11.6	13.0	13.0	13.5	13.7	24	13.7
3	15.2	13.6	13.1	10.3	9.0	9.5	10.2	13.2	11.1	10.3	8.8	8.8	7.6	6.9	6.7	6.9	7.0	7.0	8.2	13.7	15.9	14.6	16.2	16.5	24	16.5
4	16.4	13.4	11.1	10.3	10.5	11.6	12.8	13.1	13.8	12.5	13.4	8.3	6.7	7.5	7.3	7.2	7.7	9.6	16.6	19.3	18.5	19.1	21.8	18.4	24	21.8
5	20.5	19.9	16.1	12.4	12.7	12.5	13.1	13.2	13.2	13.1	12.1	10.3	8.8	8.5	8.7	9.1	9.1	11.1	13.6	14.6	14.0	15.4	15.1	13.8	24	20.5
6	14.0	13.9	14.5	15.1	15.3	14.4	15.5	16.2	17.1	13.9	11.4	AZ	10.6	9.9	9.4	9.7	10.3	11.6	13.0	11.7	12.8	11.0	11.4	10.3	23	17.1
7	8.9	10.2	10.9	11.6	12.5	12.1	13.0	17.3	17.2	9.5	4.9	4.6	4.1	4.0	3.9	4.8	4.5	5.6	7.4	5.6	5.2	5.5	5.7	5.9	24	17.3
8	6.5	6.4	6.8	7.2	7.2	7.7	9.2	10.7	9.6	8.9	4.5	4.5	4.7	5.0	5.7	6.0	6.1	6.0	6.5	6.2	6.3	5.7	5.9	6.2	24	10.7
9	6.3	6.7	7.2	7.3	7.8	8.2	11.5	15.6	19.5	29.1	14.6	5.2	5.0	4.6	4.8	4.9	5.0	6.6	10.0	6.5	5.1	5.0	4.9	5.0	24	29.1
10	5.1	5.1	5.0	4.9	5.3	5.4	4.8	5.0	5.4	6.4	5.8	4.3	3.6	3.5	4.3	6.7	8.8	11.9	12.4	14.1	15.6	13.0	11.4	10.9	24	15.6
11	9.9	9.6	9.7	7.6	6.9	7.4	7.1	7.0	7.2	6.7	6.7	7.2	7.3	8.2	6.6	6.0	6.5	7.6	8.1	9.3	9.0	8.6	8.9	11.2	24	11.2
12	8.8	6.7	6.2	6.7	7.6	6.7	6.1	5.2	5.2	5.9	5.9	5.9	8.5	9.1	7.4	7.3	7.6	7.6	7.8	7.6	7.8	6.3	7.3	9.7	24	9.7
13	10.4	9.3	9.9	10.3	10.2	13.2	15.4	14.3	13.4	11.9	12.2	11.7	11.1	10.8	11.8	11.9	12.6	12.0	11.9	12.0	11.9	11.6	11.8	12.2	24	15.4
14	12.5	13.9	13.3	13.4	13.9	14.4	14.7	14.7	15.2	15.1	15.8	13.3	13.9	13.3	11.5	8.6	6.6	5.7	6.1	6.6	5.0	4.1	3.5	5.5	24	15.8
15	7.0	8.0	8.9	9.1	8.7	8.6	8.0	7.3	7.4	6.7	6.7	5.7	5.9	5.6	5.9	7.6	9.7	6.6	7.1	7.9	8.1	8.3	8.5	6.8	24	9.7
16	5.8	5.3	6.3	5.8	6.5	4.8	5.0	6.7	7.4	8.1	8.6	10.5	10.8	11.4	11.5	10.6	11.4	12.9	15.3	16.3	15.4	21.2	19.8	20.9	24	21.2
17	20.1	21.5	21.6	20.7	23.4	22.2	18.9	18.2	14.6	12.7	14.0	13.0	11.6	11.2	10.6	10.8	10.8	9.9	9.9	11.2	10.8	10.4	10.9	11.3	24	23.4
18	11.1	9.8	7.2	6.0	5.9	5.5	5.4	5.5	5.9	6.5	7.2	8.0	8.1	8.9	9.3	10.0	10.7	9.7	12.3	13.1	13.5	10.8	12.1	11.7	24	13.5
19	11.0	11.2	12.3	13.6	14.1	14.3	14.4	13.9	12.4	11.0	9.7	8.0	7.7	7.9	9.1	9.1	11.5	23.3	15.4	21.8	42.9	37.3	26.3	21.4	24	42.9
20	20.4	20.8	21.7	21.4	23.8	22.2	23.5	24.6	18.9	12.7	10.5	7.4	7.1	6.0	5.3	5.6	5.9	5.9	5.9	6.3	5.4	5.2	5.5	6.1	24	24.6
21	2.8	1.2	1.6	2.5	2.8	3.3	4.0	4.1	4.6	3.9	4.6	AZ	5.0	5.4	7.7	6.6	7.5	6.9	7.0	6.3	5.5	5.4	4.7	3.7	23	7.7
22	4.7	4.1	3.8	5.2	7.4	7.9	10.7	9.8	9.4	9.0	8.1	7.7	6.7	5.7	5.6	5.8	6.7	13.2	17.0	18.3	17.3	17.9	19.7	13.5	24	19.7
23	17.9	19.9	17.5	14.2	13.0	12.6	13.2	12.8	12.2	12.9	10.7	11.5	10.9	11.2	10.8	11.5	13.1	13.6	15.4	16.1	15.7	15.5	16.8	20.5	24	20.5
24	18.4	19.7	18.8	17.9	17.5	18.2	18.3	17.1	14.8	13.3	12.5	12.2	10.2	11.2	12.8	9.9	12.5	14.5	16.1	15.9	18.0	17.6	22.1	58.0	24	58.0
25	62.8	63.3	66.2	56.3	50.3	39.7	32.4	32.2	30.1	19.9	16.3	12.1	10.3	9.7	8.8	7.8	7.6	11.8	15.9	24.5	27.9	24.0	22.6	20.9	24	66.2
26	18.4	20.0	14.4	13.2	11.9	10.5	9.9	8.5	10.8	7.5	6.4	8.6	9.5	9.8	11.6	10.6	9.7	8.4	8.5	8.3	9.4	10.3	9.2	5.0	24	20.0
27	3.9	4.6	5.8	6.2	6.1	6.3	6.7	7.2	6.9	6.2	6.7	5.3	5.1	4.9	4.7	4.6	4.8	11.3	11.0	8.5	9.5	12.9	5.6	5.4	24	12.9
28	7.4	6.3	6.7	8.1	8.2	9.3	8.4	10.8	10.3	7.2	5.0	4.1	3.9	3.3	2.8	3.3	3.7	5.9	8.5	11.5	13.4	15.0	17.4	23.7	24	23.7
29	23.3	21.1	23.6	25.6	22.9	21.6	23.3	26.2	28.3	36.3	21.0	7.9	4.9	5.0	5.0	5.1	6.2	11.0	35.7	33.5	31.2	26.8	23.7	22.7	24	36.3
30	21.2	25.6	27.4	25.2	21.7	23.3	27.8	29.7	26.6	20.8	16.5	12.9	10.8	11.4	51.6	26.6	28.0	21.2	11.9	13.1	15.9	17.0	18.3	12.6	24	51.6
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	30	30	28	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	62.8	63.3	66.2	56.3	50.3	39.7	32.4	32.2	30.1	36.3	21.0	13.3	13.9	13.3	51.6	26.6	28.0	23.3	35.7	33.5	42.9	37.3	26.3	58.0		
AVG:	13.57	13.51	13.40	12.75	12.58	12.30	12.68	13.24	12.79	11.70	9.74	8.20	7.69	7.66	9.03	8.15	8.72	9.98	11.57	12.60	13.55	13.17	12.92	13.70		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 11.48 MONTHLY MAX: 66.2

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.

(88101) PM2.5 - Local Conditions

SITE ID: 28-035-0004 POC: 23
COUNTY: (035) Forrest
CITY: (31020) Hattiesburg

SITE ADDRESS: 205 Bay Street

SITE COMMENTS:
MONITOR COMMENTS:

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution

STATE: (28) Mississippi
AQCR: (005) MOBILE-PENSACOLA-PANAMA CITY-SOUTH

URBANIZED AREA: (3285) HATTIESBURG, MS

LAND USE: COMMERCIAL
LOCATION SETTING: URBAN AND CENTER CITY

CAS NUMBER:
LATITUDE: 31.32389
LONGITUDE: -89.2922
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 0
PROBE HEIGHT: 5

MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte

REPORT FOR: DECEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)

PQAO: (0703) Mississippi DEQ, Office Of Pollution

MIN DETECTABLE: .1

HOUR

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMUM
1	9.6	9.3	7.9	6.1	5.4	5.2	4.5	2.8	2.0	2.5	2.8	3.9	5.4	5.8	7.6	8.5	9.4	10.6	10.2	8.8	6.7	6.2	6.0	6.2	24	10.6
2	5.8	4.3	3.0	2.8	2.9	2.6	2.6	2.6	2.8	3.3	1.6	1.1	1.3	1.5	2.2	2.8	2.9	2.6	3.1	3.9	5.0	6.7	7.5	5.9	24	7.5
3	5.8	6.2	5.3	3.3	3.7	3.4	4.4	4.8	5.1	6.0	7.2	7.4	7.5	7.7	7.9	6.4	6.2	7.6	9.4	10.1	12.5	11.5	9.8	8.9	24	12.5
4	9.2	9.8	13.1	11.9	11.9	11.9	11.9	11.2	10.0	8.7	BA	AZ	4.9	4.3	3.3	2.8	2.8	5.6	8.3	7.4	5.9	6.2	6.0	5.7	22	13.1
5	5.9	6.3	7.0	7.0	6.4	6.3	6.6	6.5	6.7	5.9	5.5	3.7	3.3	3.2	4.3	6.4	5.0	7.0	13.4	7.9	7.4	8.6	10.2	9.0	24	13.4
6	9.6	5.8	4.6	3.6	3.3	3.3	3.7	4.4	5.1	5.6	5.5	5.3	5.3	5.1	4.4	4.1	5.1	8.1	8.4	11.0	16.1	20.2	22.9	26.6	24	26.6
7	29.9	30.2	26.1	30.1	28.2	28.7	26.8	25.7	24.7	37.3	18.4	7.6	5.7	5.0	5.3	6.0	8.1	11.2	10.1	16.9	19.5	22.1	16.5	13.4	24	37.3
8	12.3	13.3	13.7	13.9	16.8	19.7	21.4	21.9	22.8	14.0	10.6	9.8	7.5	5.5	5.7	4.7	4.5	4.3	4.8	4.5	4.5	4.6	4.9	5.8	24	22.8
9	8.6	5.9	4.2	4.9	4.1	3.9	3.6	4.0	3.8	3.1	2.8	2.9	2.9	3.1	3.0	3.3	3.3	3.7	4.1	3.7	3.5	3.8	4.0	3.9	24	8.6
10	3.6	3.0	2.2	1.5	3.8	4.4	4.9	4.4	3.1	2.7	2.8	2.8	2.4	2.0	2.0	2.1	2.4	2.6	2.5	2.5	2.9	3.1	3.2	3.1	24	4.9
11	2.9	3.1	3.1	3.7	4.0	4.1	4.1	4.1	3.9	BL	AZ	2.5	2.4	2.4	2.4	2.5	2.5	3.6	14.2	15.5	11.3	12.0	14.2	11.0	22	15.5
12	11.9	12.4	8.1	9.4	8.2	9.2	10.2	8.8	7.4	5.5	3.8	2.9	2.6	2.3	2.4	2.9	3.4	4.6	6.7	8.6	15.8	27.1	14.4	13.7	24	27.1
13	14.3	17.4	15.7	10.2	9.4	9.2	9.9	11.1	8.5	6.3	5.4	4.1	3.6	3.5	3.4	4.1	5.4	8.8	7.0	9.5	10.1	17.3	17.6	18.4	24	18.4
14	16.9	16.3	18.6	18.7	15.1	12.6	13.7	13.1	11.4	7.5	5.4	4.1	3.7	3.6	3.4	4.1	4.7	9.4	11.6	10.3	10.2	9.5	9.6	11.4	24	18.7
15	7.5	6.7	6.2	5.8	5.8	5.6	5.8	6.2	5.7	5.5	5.8	5.6	5.4	5.5	6.1	5.2	5.3	5.3	5.9	7.8	8.4	9.0	7.8	7.7	24	9.0
16	7.6	7.8	7.8	7.6	7.4	7.2	7.5	7.6	6.7	6.3	5.7	5.7	6.4	9.5	6.3	6.0	5.9	5.9	7.8	10.9	9.4	12.9	7.5	8.0	24	12.9
17	8.3	8.4	9.3	7.1	6.8	6.3	6.7	5.0	3.5	3.0	3.0	3.3	3.6	3.0	2.6	2.8	3.0	5.5	4.7	6.2	5.5	3.8	3.3	3.4	24	9.3
18	3.8	4.0	4.1	4.9	5.4	5.0	5.1	16.6	6.7	5.6	5.7	4.6	3.5	3.2	3.3	2.6	2.8	4.3	3.8	3.2	3.0	3.5	3.0	3.5	24	16.6
19	3.6	3.7	4.0	4.1	4.7	4.6	4.9	5.7	4.9	2.9	2.5	2.6	3.4	3.6	3.2	3.7	4.5	6.0	9.8	16.7	14.6	15.2	24.3	24.0	24	24.3
20	22.6	28.6	25.6	22.9	15.8	15.7	12.0	13.5	11.0	8.2	7.9	8.2	7.7	7.4	6.9	7.2	9.9	11.2	11.5	14.2	13.2	15.2	16.9	20.2	24	28.6
21	19.2	21.0	20.2	24.4	26.4	24.5	23.8	26.0	23.1	20.1	15.2	AZ	8.0	6.9	6.7	6.5	7.1	10.8	14.2	16.4	17.0	17.0	20.3	17.5	23	26.4
22	17.1	16.7	16.9	17.6	18.2	18.5	17.4	17.9	16.8	13.6	12.6	9.4	8.3	6.8	5.5	5.3	6.1	9.3	10.8	11.3	11.1	17.6	15.2	17.7	24	18.5
23	19.1	12.7	11.8	13.2	17.5	23.9	31.3	27.4	16.2	9.9	6.4	5.7	5.4	5.3	4.8	5.1	5.1	5.3	9.2	20.0	11.0	14.1	18.9	14.7	24	31.3
24	11.8	12.3	12.0	9.4	5.8	5.0	4.9	5.1	5.5	5.9	5.7	5.0	4.1	4.1	4.5	4.3	3.7	3.4	3.3	3.2	3.2	3.0	2.1	2.0	24	12.3
25	2.3	2.3	2.5	3.3	2.4	2.4	2.3	2.8	2.8	2.8	2.8	3.1	3.5	4.2	4.3	4.0	5.7	5.3	6.5	8.4	6.4	5.5	5.7	5.4	24	8.4
26	5.7	5.0	4.1	4.1	4.3	4.6	4.8	5.1	4.8	4.4	4.6	4.8	4.9	4.9	4.6	4.2	3.8	5.6	10.9	13.6	18.6	21.3	16.0	16.6	24	21.3
27	17.6	14.4	27.2	12.4	10.8	10.7	11.4	13.9	12.2	8.8	6.2	5.5	4.7	4.1	4.0	4.0	4.5	5.5	7.2	6.9	9.3	10.8	6.7	6.8	24	27.2
28	6.2	5.2	5.2	4.6	4.6	4.6	4.6	4.8	4.6	4.1	3.4	3.2	2.9	2.9	3.1	2.8	2.8	6.7	3.3	2.8	3.1	3.3	3.7	3.7	24	6.7
29	3.8	3.8	4.1	4.8	5.0	5.4	5.4	5.9	6.7	7.5	6.9	6.3	5.0	4.1	3.7	3.5	3.7	5.0	8.3	10.5	8.1	7.7	7.9	8.4	24	10.5
30	9.9	10.0	9.5	9.1	9.9	12.6	11.7	14.6	9.7	7.6	6.2	6.0	5.0	4.7	4.3	4.9	7.0	6.5	26.9	51.8	56.0	40.6	22.5	27.0	24	56.0
31	29.4	25.7	30.6	32.6	34.5	27.5	23.2	24.4	17.4	15.0	10.6	5.1	4.7	4.3	3.7	3.9	4.7	8.1	15.2	35.2	41.2				21	41.2
NO.:	31	31	31	31	31	31	31	31	31	30	29	29	31	31	31	31	31	31	31	31	31	30	30	30		
MAX:	29.9	30.2	30.6	32.6	34.5	28.7	31.3	27.4	24.7	37.3	18.4	9.8	8.3	9.5	7.9	8.5	9.9	11.2	26.9	51.8	56.0	40.6	24.3	27.0		
AVG:	11.03	10.70	10.76	10.16	9.95	9.95	10.04	10.58	8.89	7.99	6.31	4.90	4.68	4.50	4.35	4.41	4.88	6.43	8.81	11.60	11.95	11.98	10.95	10.99		

MONTHLY OBSERVATIONS: 736 MONTHLY MEAN: 8.62 MONTHLY MAX: 56.0

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk ("*") indicates that the region has reviewed the value and does not concur with the qualifier.