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 DeSoto County, Mississippi (2022-2024)

The Mississippi Department of Environmental Quality (MDEQ) is providing notice and opportunity for public comment on an exceptional events demonstration for the Hernando PM2.5 monitoring site (AQS ID: 28-033-0002) for calendar years 2022, 2023, and 2024.

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, Canadian wildfires, and Saharan dust events that affected air quality in DeSoto County during 2022, 2023, and 2024.

Overview of Exceptional Events

The demonstration covers 13 distinct event periods:

2022 Events (6 total):

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

2023 Events (6 total):

- Six Canadian wildfire events

2024 Events (1 total):

- One Canadian wildfire event

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 2022-2024 design value calculation
- Current monitoring data shows:
  - 2022-2024 Design Value: 9.1 µg/m³
  - Design Value with Requested Exclusions: 9.0 µg/m³
  - 2024 Annual PM2.5 NAAQS: 9.0 µg/m³

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
- AirNow Navigator imagery
- GOES satellite imagery
- Fire inventory data
- Speciation data (where applicable)

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 August 15, 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).

DeSoto County, Mississippi PM2.5 Exceptional Event Demonstration

Years: 2022, 2023, 2024

Concurrence Request

Submitted to: EPA, Region 4
Prepared by: Rodney Cuevas, Mississippi Department of Environmental Quality
Date: July 2025

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Executive Summary

Overview

The Mississippi Department of Environmental Quality (MDEQ) requests the U.S. Environmental Protection Agency's (EPA) concurrence on excluding PM2.5 concentration data influenced by multiple exceptional events. These events affected the Hernando monitoring site (AQS ID: 28-033-0002) in DeSoto County, Mississippi, during the calendar years 2022, 2023, and 2024. The exclusion of this data is sought in support of Mississippi's designation recommendations for the revised primary annual PM2.5 National Ambient Air Quality Standard (NAAQS).

The episodic prescribed fires, wildfires, Saharan dust, and Canadian wildfire smoke during these years caused the Hernando monitor to measure design values that MDEQ believes are not representative of typical air quality conditions.

Key Information:

- **Affected Monitoring Site:** Hernando, DeSoto County
- **AQS ID:** 28-033-0002
- **Applicable NAAQS:** Revised Primary Annual PM2.5 NAAQS (9.0 µg/m^3)
- **Design Value Period for this Submission:** 2022 – 2024
- **Design Value (2022-2024) without EE Concurrence:** 9.1 µg/m^3
- **Anticipated Design Value (2022-2024) with EE Concurrence:** 9.0 µg/m^3

Exceptional Events Summary

The following is a summary of the exceptional events and the corresponding measured PM2.5 concentrations at the Hernando site (AQS ID: 28-033-0002) that are included in this demonstration:

Table A
A Summary of PM2.5 Concentrations from Various Environmental Events

Event Type	Year	Date(s)	PM2.5 Concentrations (μg/m³)
Prescribed Fire	2022	March 3-4	19.7, 21.7
Prescribed Fire	2022	October 6-7	18.37, 23.3
Saharan Dust	2022	June 13-15	22.4, 35.5, 29.1
Wildfire	2022	June 16-17	26.3, 21.3
Wildfire	2022	September 21	18.9
Canadian Wildfire	2022	July 22	18.2
Canadian Wildfire	2023	May 20-28	28.3, 27.2, 30.7, 16.4, 24.2, 26.0, 16.7, 16.1, 19.9
Canadian Wildfire	2023	June 1-10	21.5, 17.1, 17.3, 21.9, 22.2, 26.2, 34.0, 27.1, 32.8, 20.2
Canadian Wildfire	2023	June 12	22.56
Canadian Wildfire	2023	June 26-28	23.7, 29.4, 24.9
Canadian Wildfire	2023	September 7-8	27.9, 30.2
Canadian Wildfire	2023	October 3-5	18.8, 40.17, 38.94
Canadian Wildfire	2024	August 1-2	37.0, 24.0

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
- AirNow Navigator imagery
- GOES satellite imagery
- Fire inventory data
- Speciation data (where applicable)

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
- Documented fire locations and smoke transport patterns
- Synoptic weather patterns favorable for pollutant transport and stagnation

Impact Analysis

These exceptional events contributed to elevated annual PM2.5 concentrations at the DeSoto County monitor. The events demonstrate clear patterns of long-range transport from various sources including:

- Canadian wildfires producing extensive smoke plumes
- Regional prescribed burning activities
- Saharan dust transport events
- Local and regional wildfire impacts

Excluding these documented exceptional events would lower the 2022-2024 design value from 9.1 $\mu g/m^3$ to 9.0 $\mu g/m^3$, bringing the DeSoto County area into compliance with the 2024 annual PM2.5 NAAQS of 9.0 $\mu g/m^3$.

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

Not Reasonably Controllable or Preventable Criterion Analysis

The prescribed fires in question were conducted in accordance with Mississippi's Voluntary Smoke Management Guidelines and followed appropriate Basic Smoke Management Practices (BSMP) as outlined in both EPA's 2019 Exceptional Events Guidance for Prescribed Fires and Mississippi's guidelines. Specifically, the burns implemented the following BSMP:

1) Not Reasonably Controllable (Using Basic Smoke Management Practices)

- Evaluation of smoke dispersion conditions prior to ignition
- Monitoring of smoke effects on air quality during the burn
- Record-keeping through burn/smoke journals
- Public notification to potentially affected populations
- Implementation of emission reduction techniques
- Coordination of area burning with appropriate authorities

These practices align with Table 2 of EPA's 2019 Prescribed Fire guidance document (page 24) for demonstrating the burns were not reasonably controllable. The burns were conducted under Mississippi Forestry Commission permits, which require adherence to daily guides consisting of mixing height and transport wind speed parameters to ensure adequate smoke dispersion.

2) Not Reasonably Preventable (Using Land Management Plans): The prescribed fires were not reasonably preventable as they were conducted pursuant to established land management objectives for maintaining forest health and reducing hazardous fuel loads. According to Mississippi's natural fire regime, as documented in the state's Voluntary Smoke Management Guidelines, prescribed fire is essential to:

- Reduce naturally occurring vegetative fuels within wildland areas to decrease risk of catastrophic wildfire
- Maintain ecological integrity of fire-dependent natural communities
- Prepare sites for reforestation and control competing vegetation

These burns represent a property right and land management tool recognized under Mississippi's Prescribed Burning Act (§49-19-301), which specifically acknowledges prescribed burning as essential for perpetuation, restoration, and management of many plant and animal communities.

Adherence to Mississippi's Smoke Management Guidelines and BSMPs

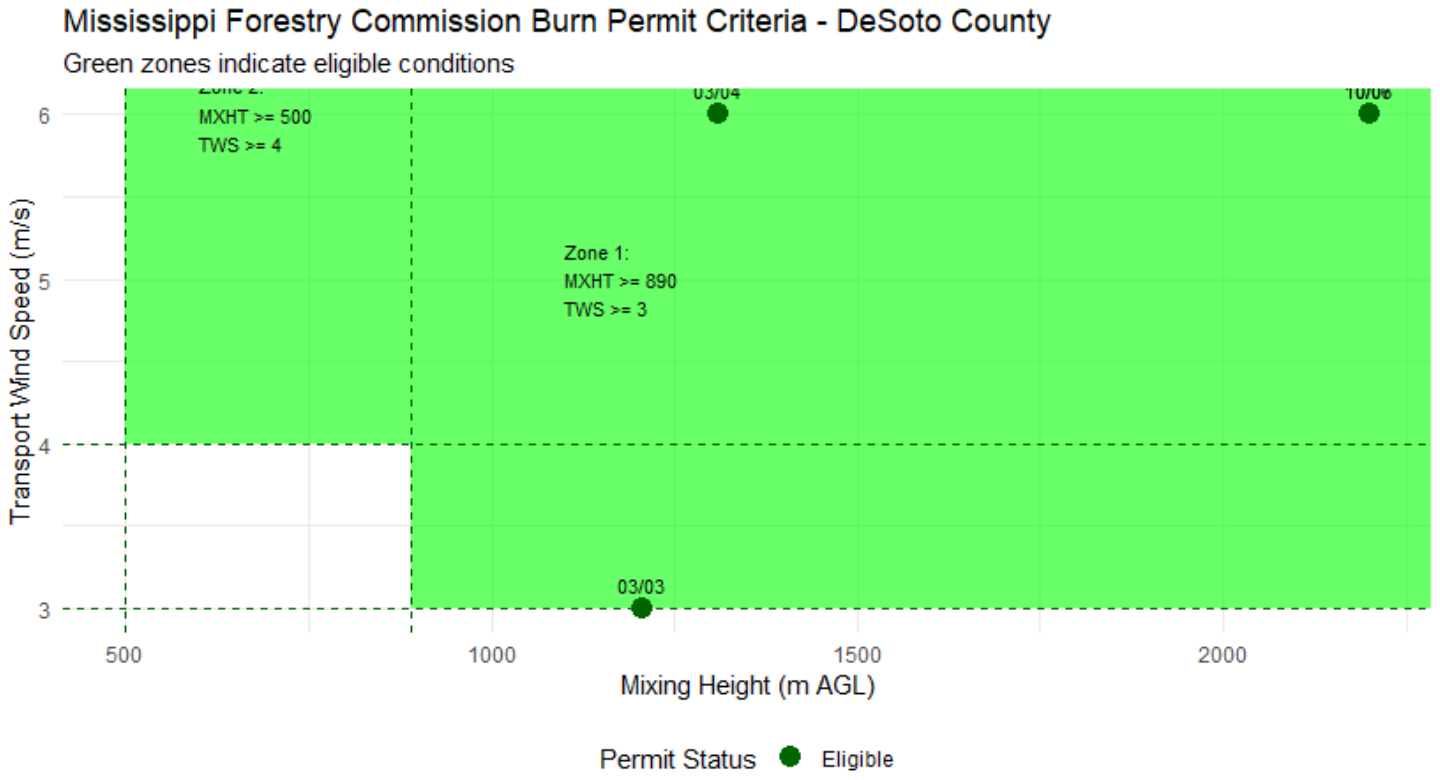
To demonstrate that the prescribed fires were conducted using appropriate Basic Smoke Management Practices (BSMPs), this section provides specific evidence showing adherence to Mississippi's Voluntary Smoke Management Guidelines (VSMG). A key component of these guidelines is the pre-burn evaluation of meteorological conditions to ensure adequate smoke dispersion. The Mississippi Forestry Commission (MFC) provides daily guidance based on mixing height and transport wind speed, which determines burn permit eligibility.

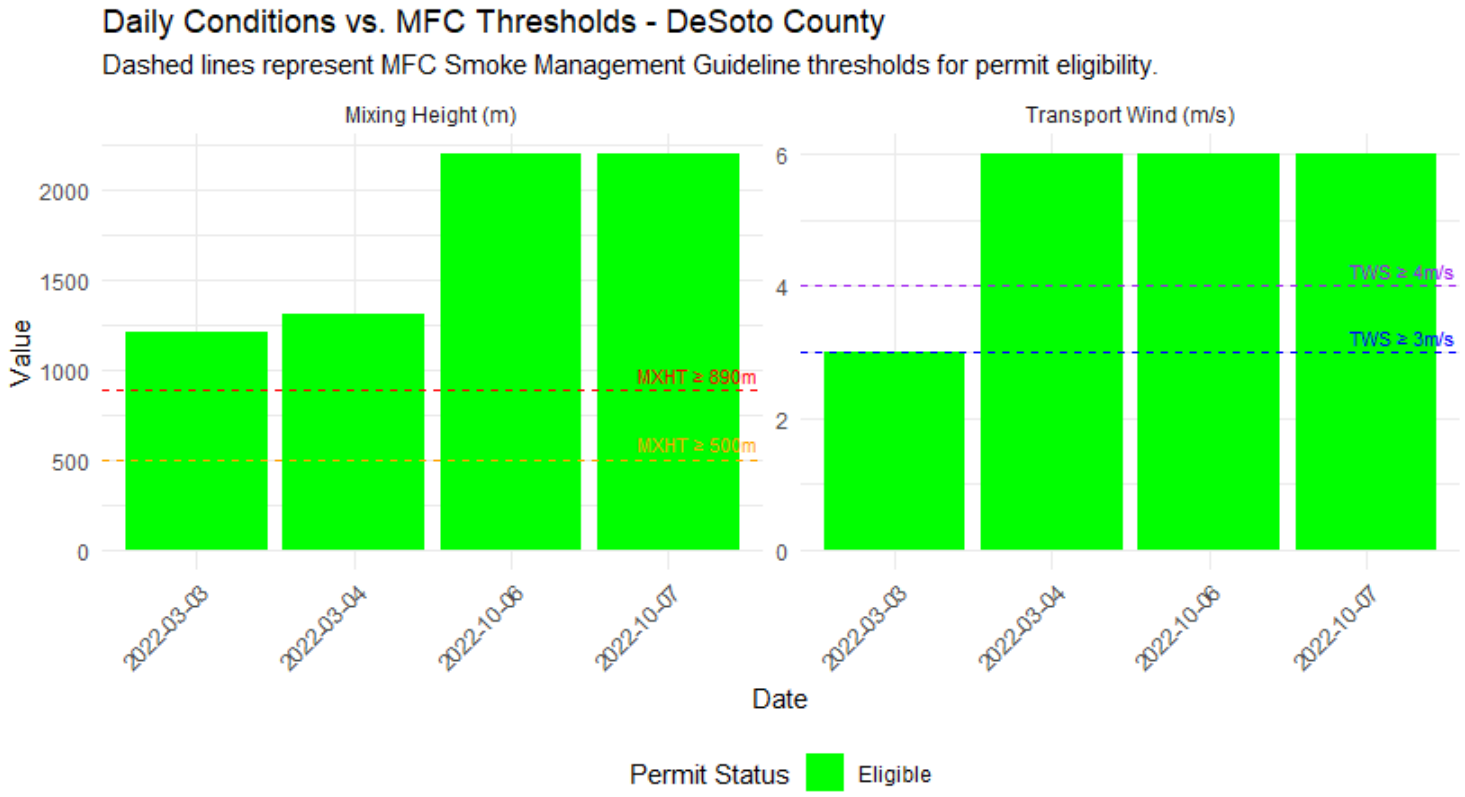
The analysis below uses forecasted meteorological data from Fire Weather Planning Forecast for DeSoto County on each prescribed burn date.

```
MSZ001-007-008-010>012-020-021-062215-
Coahoma-Desoto-Panola-Quitman-Tallahatchie-Tate-Tunica-Yalobusha-
330 AM CDT Thu Oct 6 2022

                     Today        Tonight      Fri

Cloud Cover          Clear        Mclear       Mclear
Precip Chance (%)
Precip Type          None         None         None
Precip Amount        0.00         0.00         0.00
Precip Duration (hrs)
Precip Begin
Precip End
Temp (24h trend)     90 (+8)      53 (+5)      82
RH % (24h trend)     24 (+3)      93 (+7)      39
AM Wind 20ft (mph)   Lgt/Var                   N 3-7
PM Wind 20ft (mph)   W 3-7        Lgt/Var      N 6-10
Mixing Hgt(m-agl)    2200                      1800
Mixing Hgt(ft-agl)   7100                      5900
Mixing Hgt(m-agl/msl) 2300                     1900
Mixing Hgt(ft-agl/msl)7400                     6100
Transport Wnd (m/s)  W  6                      N  8
Transport Wnd (mph)  W 13                      N 18
Vent Index (m2/s)    2800                      3100
Category Day         4                         4
500m Mix Hgt Temp (F) 76                       72
500m Tspt Wind (m/s) W  3                      N  7
500m Tspt Wind (mph) W  8                      N 15
Dispersion Index     30           4            43
LAL                  1            1            1
LASI/Haines Index    5            5            4
Stability Class      B            F            C
Stagnation Index     3            3            3

Remarks...None.
```

https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=FWFMEG&e=202210060830

This data was used to calculate a ventilation index (Mixing Height (m) × Transport Wind Speed (m/s)) and determine the "Permit Status" according to MFC criteria.





The data presented in the accompanying figures on page 6 demonstrates that the prescribed burns impacting DeSoto County were conducted when conditions were forecasted as "Eligible" under the Mississippi Forestry Commission's (MFC) smoke management thresholds. The top plot shows that the daily conditions for mixing height and transport wind speed fell within the green "Eligible" zones on all event days. The bar charts below clarify these daily conditions relative to the required MFC thresholds. This adherence to the state's Voluntary Smoke Management Guidelines (VSMG) indicates that burners were actively following Basic Smoke Management Practices (BSMPs) by evaluating smoke dispersion conditions prior to ignition.

This comprehensive analysis confirms that appropriate BSMPs were followed. The elevated PM2.5 concentrations documented in this report occurred despite adherence to Mississippi's established smoke management framework, fulfilling the "not reasonably controllable" criterion.

Furthermore, these prescribed fires were not reasonably preventable as they were conducted pursuant to established land management objectives for maintaining forest health and reducing hazardous fuel loads. According to Mississippi's natural fire regime, as documented in the state's Voluntary Smoke Management Guidelines, prescribed fire is essential to:

- Reduce naturally occurring vegetative fuels within wildland areas to decrease the risk of catastrophic wildfire.
- Maintain the ecological integrity of fire-dependent natural communities.
- Prepare sites for reforestation and control competing vegetation.

Natural Events Classification and Historical Return Intervals Criterion Analysis

This section addresses the requirements at 40 CFR 50.14(c)(3)(iv)(E) regarding the classification of events as either natural or human activities unlikely to recur at a particular location. The PM2.5 exceedances in DeSoto County, Mississippi were caused by multiple natural events and human activities that meet the criteria for exceptional events

Saharan Dust as a Natural Event

The Saharan dust events affecting DeSoto County represent a well-documented natural phenomenon known as the Saharan Air Layer (SAL). This occurs when wind patterns transport mineral dust from the Sahara Desert across the Atlantic Ocean to the southeastern United States. The SAL typically forms between late spring and early fall when millions of tons of dust are lifted by strong winds and thermal convection over North Africa. This dust-laden air mass:

- Travels at an altitude of approximately 5,000 to 20,000 feet
- Moves westward within the trade wind system
- Can transport approximately 60-200 million tons of dust annually
- Typically impacts the southeastern United States during June-August
- Creates natural background PM2.5 elevations that cannot be reasonably controlled

Natural Fire Regime and Historical Evidence

Historical fire frequency data strongly supports the natural occurrence of fire in the DeSoto County region. According to Guyette et al. (2012), the natural mean fire return interval (MFI) for this region historically ranged from 4-6 years, as demonstrated in the continental U.S. fire frequency mapping.

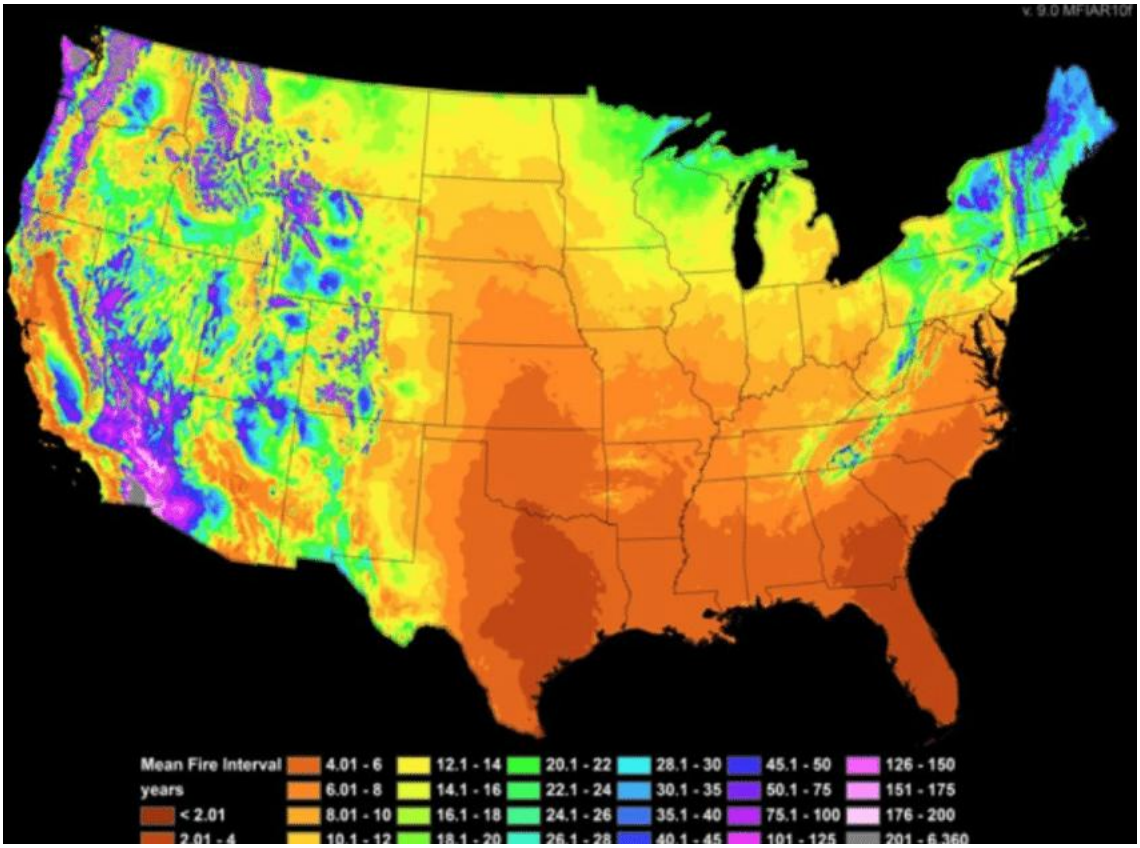


Figure 1. A map of the continental United States illustrating the historical mean fire return interval (MFI). The data indicates that the MFI for the DeSoto County region has historically been between 4 to 6 years (Guyette et al., 2012).

This scientific assessment is based on the Physical Chemistry Fire Frequency Model (PC2FM), which incorporates:

- Temperature influences on fire ignition and spread
- Precipitation patterns affecting fuel accumulation and moisture
- Partial pressure of oxygen impacting combustion
- Historical data from the pre-industrial period (1650-1850 CE)
- Spatial resolution of approximately 1.2 km^2 areas

The relatively short fire return interval (4-6 years) for the DeSoto County area reflects the region's:

- Warm subtropical climate
- Historical lightning strike patterns
- Natural vegetation assemblages adapted to periodic fire
- Seasonal dry periods conducive to natural ignition
- Topographic and meteorological conditions favoring fire spread

Classification Conclusion

Both the Saharan dust transport and wildfire events meet the criteria for natural events as defined in the Exceptional Events Rule, as neither resulted from controllable human activity. These natural mechanisms for generating and transporting particulate matter:

- Cannot be reasonably controlled through human intervention at the source

- Follow documented natural patterns and frequencies
- Are supported by extensive scientific literature and historical data
- Cannot be prevented through normal air quality management strategies
- Represent fundamental Earth system processes rather than anthropogenic activities

The combination of these natural events created conditions leading to the PM2.5 exceedances in DeSoto County during the period in question, satisfying the natural event criteria under 40 CFR 50.14(c)(3)(iv)(E).

Mitigation Criterion

Mississippi fulfills the public notification requirement under 40 CFR 51.930(a)(1). Here's a clear explanation:

Mississippi Department of Environmental Quality (MDEQ) maintains a comprehensive public notification system for air quality events through multiple channels:

Primary Notification System – Enviroflash: MDEQ uses Enviroflash as its primary notification platform to provide:

- Daily 3-day forecasts for both Ozone and PM2.5
- Coverage for key areas including DeSoto County, Jackson Metro Area, and MS Gulf Coast
- Forecast notifications by 2:45 PM daily, seven days per week
- Customizable alert thresholds for subscribers

Multi-Channel Distribution To ensure widespread public access, MDEQ distributes air quality forecasts and alerts through:

- Email notifications via Enviroflash
- MDEQ Twitter Page
- MDEQ Website
- AirNow Mobile App integration

Proactive Monitoring and Extended Coverage MDEQ demonstrates commitment to early warning by:

- Extending the forecasting season to begin March 1st instead of the traditional April 1st start
- Continuously monitoring air quality trends to adjust forecasting periods
- Providing immediate notification when conditions may affect sensitive groups

Action-Oriented Alerts When elevated levels are detected or anticipated, notifications include specific action items:

- Implementation requirements for DeSoto and MS Gulf Coast Ozone Precursor Reduction Program members
- Burning restrictions during code orange days
- Health advisories for sensitive populations

Accessibility and Public Engagement MDEQ ensures broad public access through:

- Free subscription service
- Easy enrollment process
- Multiple notification threshold options
- Simple account management features

- Partner and stakeholder engagement

This comprehensive system fulfills and exceeds the mitigation requirement by providing prompt, accessible, and actionable notifications whenever an event occurs or is reasonably anticipated to occur that may result in exceedance of applicable air quality standards.

Request

MDEQ requests EPA's concurrence on these exceptional events to support appropriate regulatory determinations for the DeSoto County 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, 2023, and 2024 affected PM2.5 concentrations at the DeSoto County monitoring site (AQS ID: 28-033-0002). 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 13 distinct exceptional event periods that affected the DeSoto County monitoring site during 2022, 2023, and 2024. These exclusions have regulatory significance as they affect:

- Attainment status under the 2024 revised annual PM2.5 NAAQS
- The area's 2022-2024 design value calculation

Current monitoring data shows:

- 2022-2024 Design Value: 9.1 $\mu g/m^3$
- Design Value with Requested Exclusions: 9.0 $\mu g/m^3$

The events include:

2022 Events (6 total):

- Two prescribed fire events
- Two wildfire events
- One Saharan dust event
- One Canadian wildfire event
- Concentrations ranging from 18.2 to 35.5 $\mu g/m^3$

2023 Events (6 total):

- Six Canadian wildfire events
- Concentrations ranging from 16.1 to 40.17 $\mu g/m^3$

2024 Events (1 total):

- One Canadian wildfire event
- Concentrations of 37.0 and 24.0 $\mu g/m^3$

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
- Fire inventory data
- Speciation data (where applicable)

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 DeSoto County area's attainment status under the 2024 annual PM2.5 NAAQS.

Exceptional Event Summary Table

Table B

Summary of Exceptional Events with Associated Air Quality System (AQS) Data and Tiered Exceedance Values

Date(s) of Event	Event Type	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration(s) (µg/m^3)	Tier(s)	Tier 1 Value (µg/m^3)	Tier 2 Value (µg/m^3)
March 3-4, 2022	Prescribed Fire	RM	28-033-0002	Hernando	19.7, 21.7	2	22.95	15.3
June 13-15, 2022	Saharan Dust	RA	28-033-0002	Hernando	22.4, 35.5, 29.1	1 & 2	22.95	15.3
June 16-17, 2022	Wildfire	RT	28-033-0002	Hernando	26.3, 21.3	1 & 2	22.95	15.3
July 22, 2022	Canadian Wildfire	RF	28-033-0002	Hernando	18.2	2	22.95	15.3
September 21, 2022	Wildfire	RT	28-033-0002	Hernando	18.9	2	22.95	15.3
October 6 & 7, 2022	Prescribed Fire	RM	28-033-0002	Hernando	18.37, 23.3	1 & 2	22.95	15.3
May 20-28, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	28.3, 27.2, 30.7, 16.4, 24.2, 26, 16.7, 16.1, 19.9	1 & 2	22.5	15.0
June 1-10, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	21.5, 17.1, 17.3, 21.9, 22.2, 26.2, 34, 27.1, 32.8, 20.2	1 & 2	22.95	15.3
June 12, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	22.56	2	22.95	15.3
June 26-28, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	23.7, 29.4, 24.9	1 & 2	22.95	15.3
Sept 7-8, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	27.9, 30.2	1	22.95	15.3
October 3-5, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	18.8, 40.17, 38.94	1 & 2	22.95	15.3
August 1-2, 2024	Canadian Wildfire	RF	28-033-0002	Hernando	37, 24	1	22.95	15.3

Note. AQS = Air Quality System; RM = Prescribed Fire; RA = Saharan Dust; RT = Wildfire; RF = Canadian Wildfire

Note on Tier Values: The "Tier(s) (from Table B)" column indicates the tier classification as noted in the MDEQ's initial notification summary. The "Tier 1 Value" and "Tier 2 Value" columns reflect the specific threshold values used for visual representation and analysis, consistent with established regional thresholds for similar events (e.g., default values of 22.95 µg/m^3 for Tier 1 and 15.3 µg/m^3 for Tier 2, with specific adjustments for the May 2023 event to 22.5 µg/m^3 and 15.0 µg/m^3 respectively, based on prior data analysis).

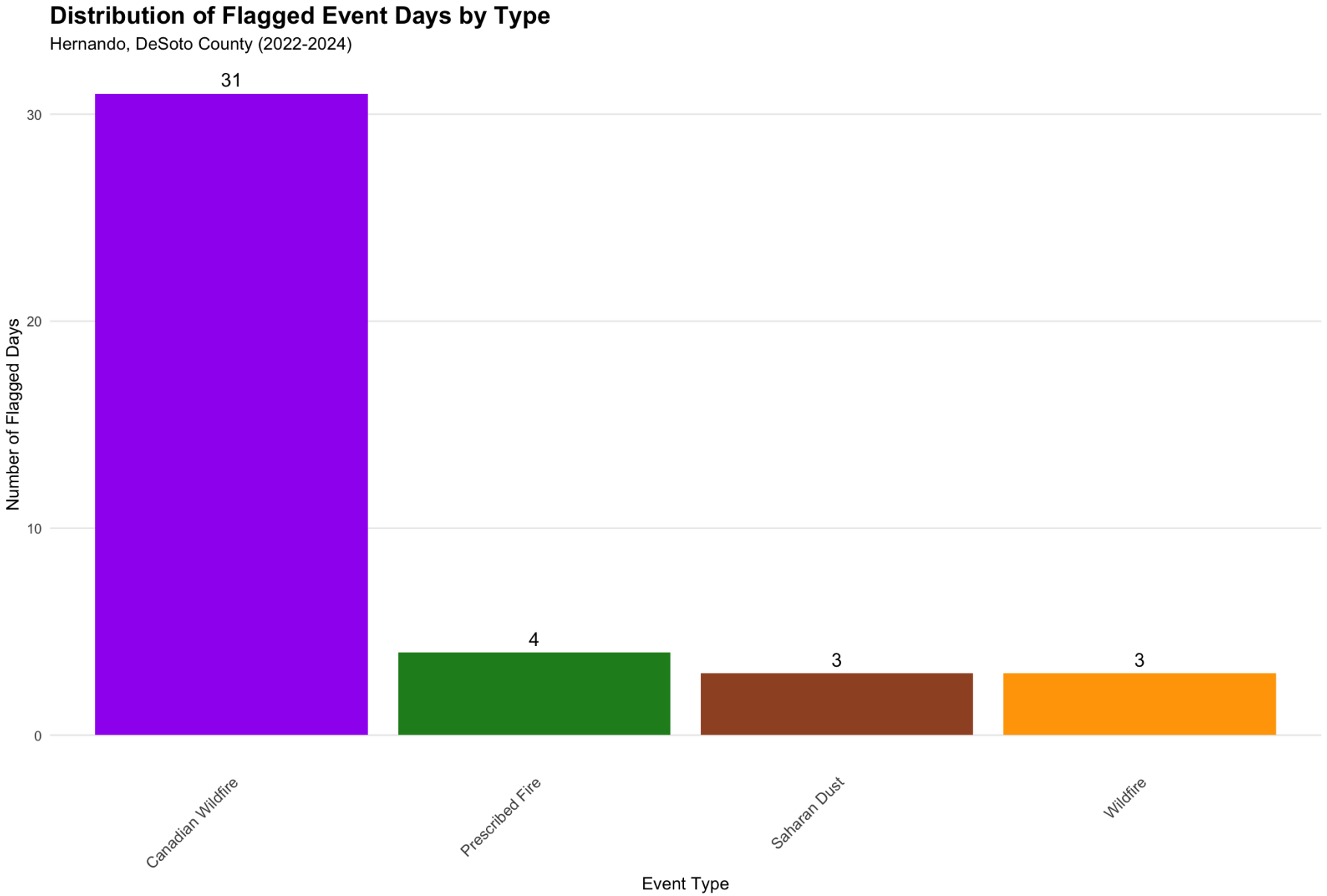


Figure 2. A bar chart illustrating the total number of flagged event days categorized by event type in Hernando, DeSoto County from 2022 to 2024.

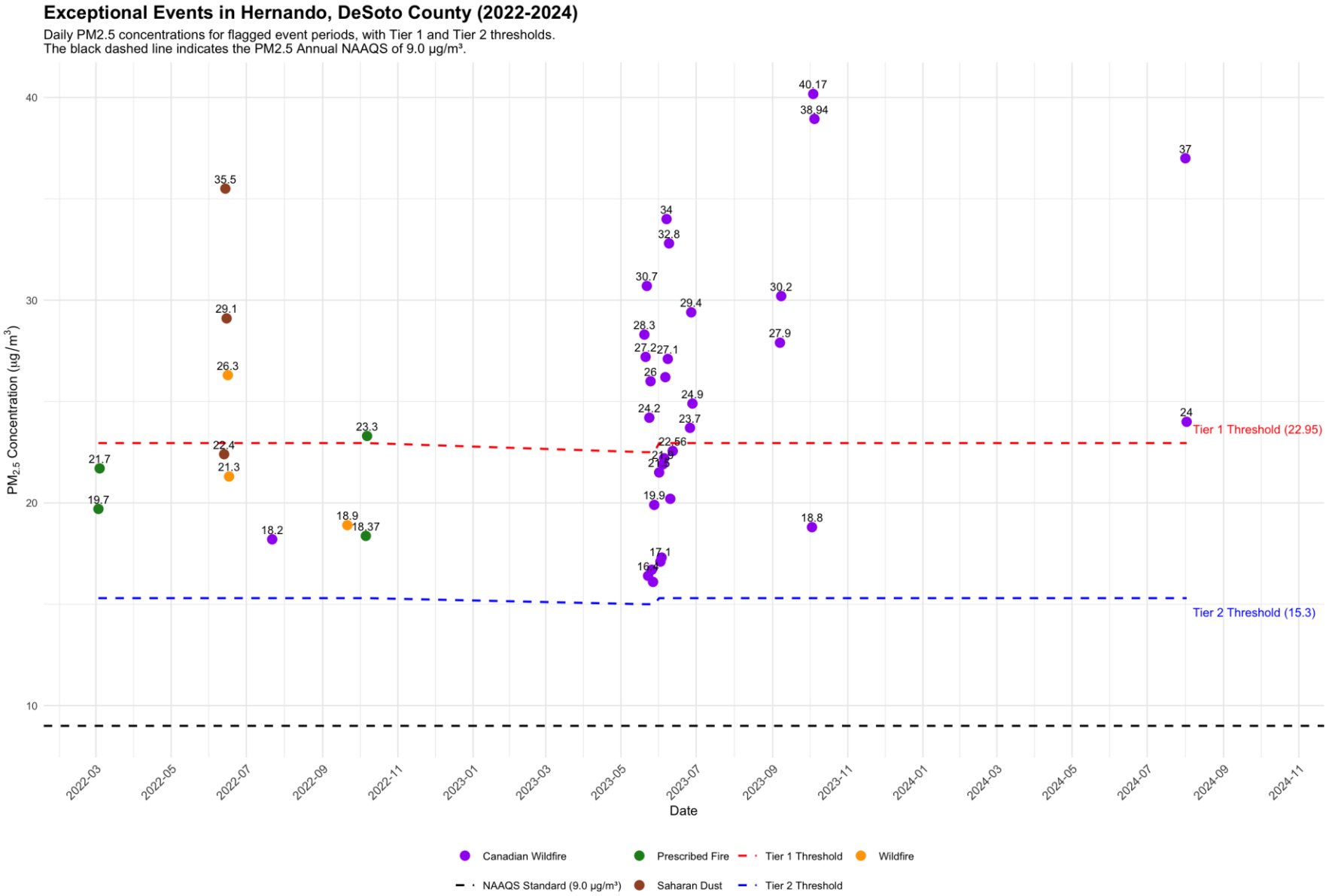
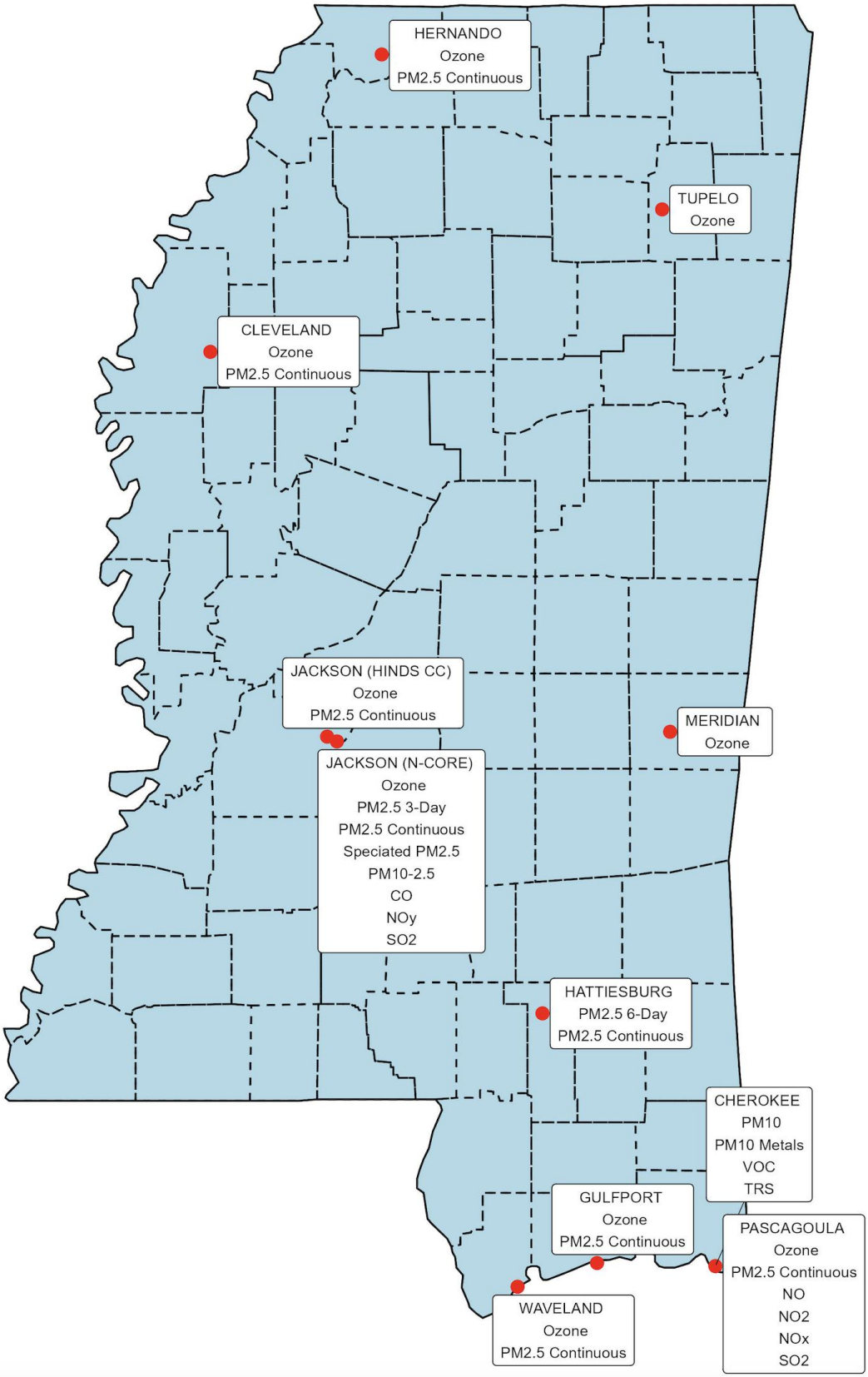


Figure 3. A scatter plot of daily PM2.5 concentrations during flagged exceptional events in Hernando, DeSoto County from 2022 to 2024. Data points are color-coded by event type and shown in relation to the Tier 1 and Tier 2 thresholds and the PM2.5 Annual NAAQS of 9.0 µg/m^3.

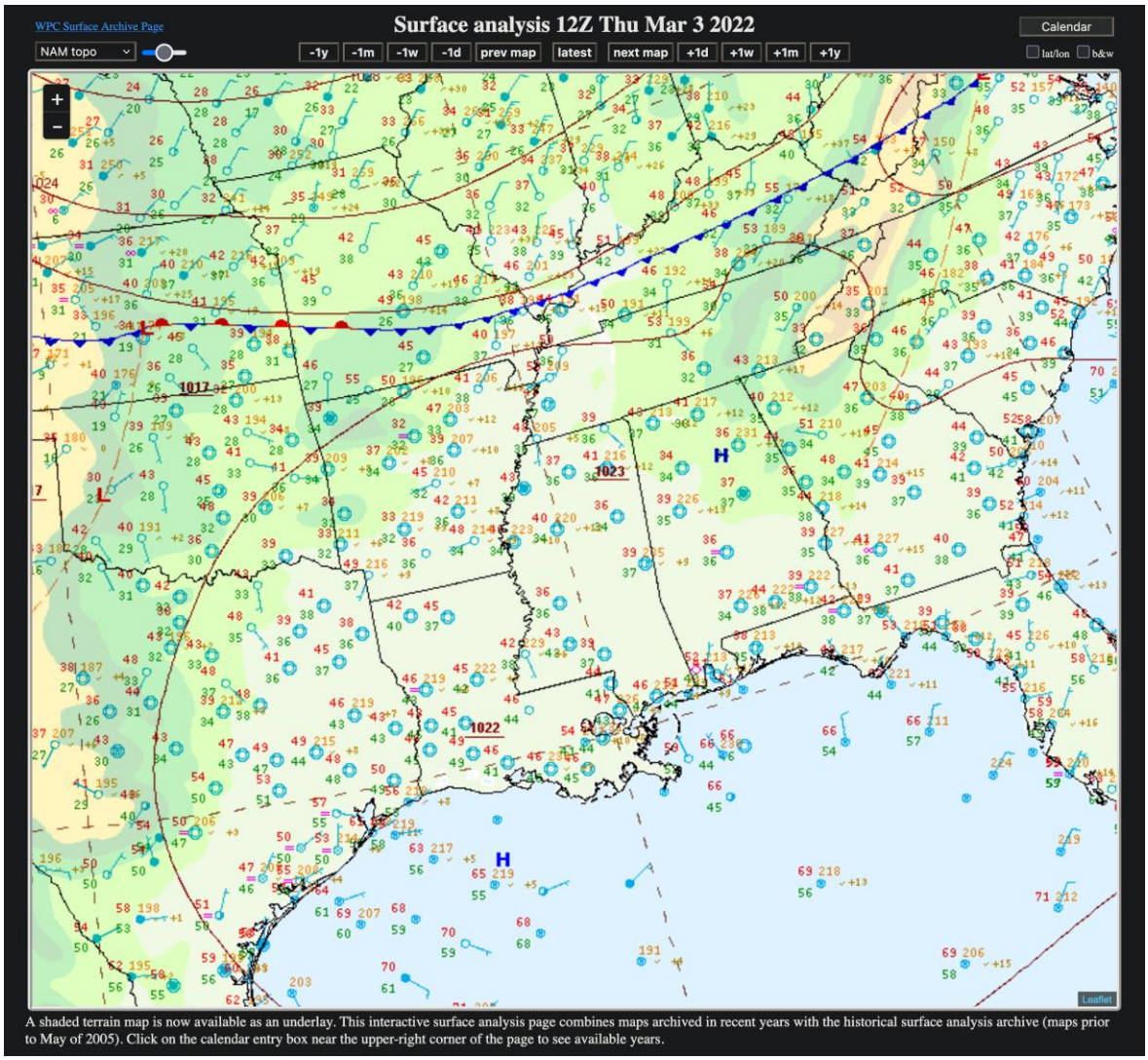
2024 MDEQ Air Monitoring Network



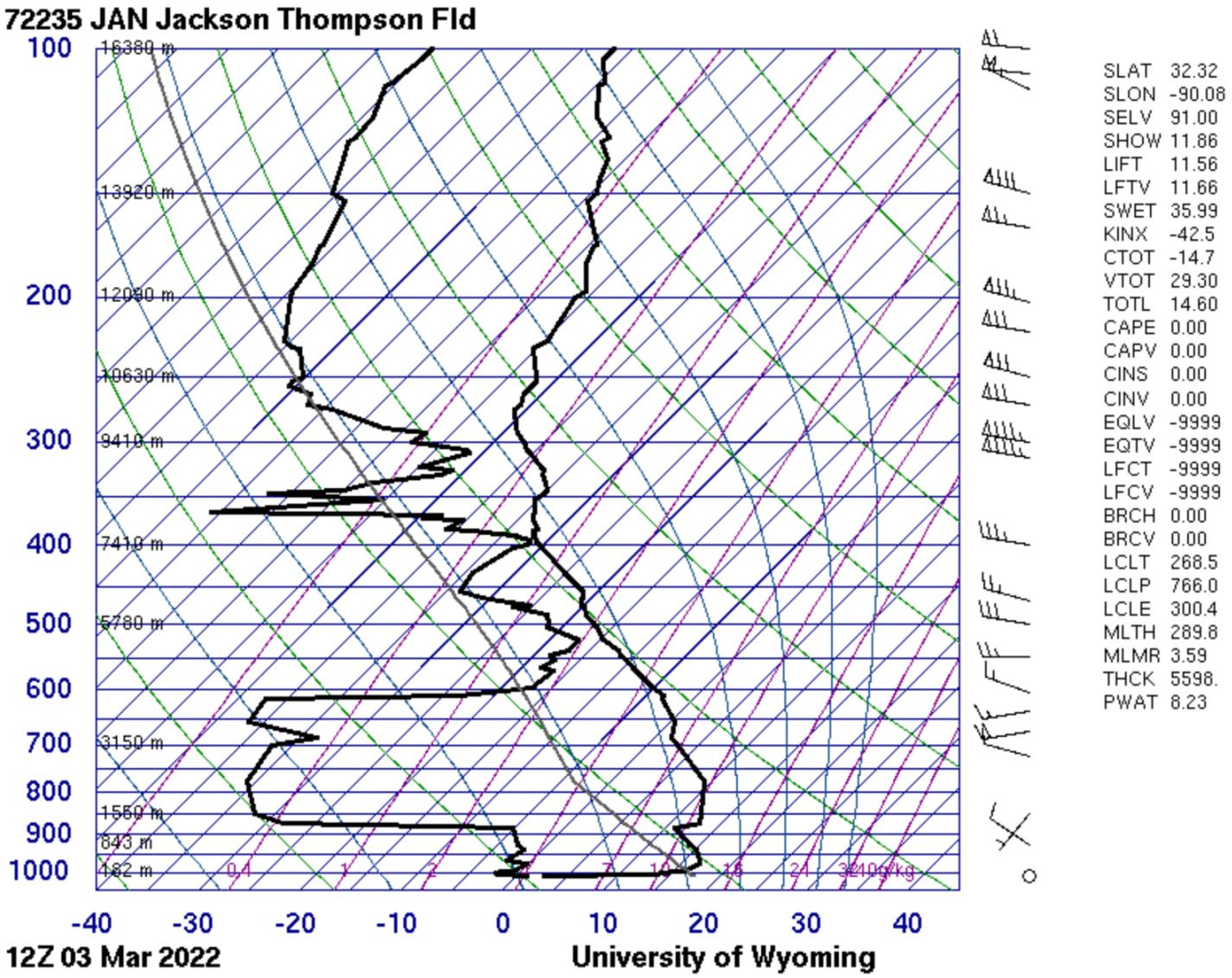
2022 Exceptional Events

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)
March 3-4, 2022	Prescribed Fire	RM	28-033-0002	Hernando	19.7, 21.7	2	Prescribed Fire an Exceptional Event Demonstration: March 3-4, 2022

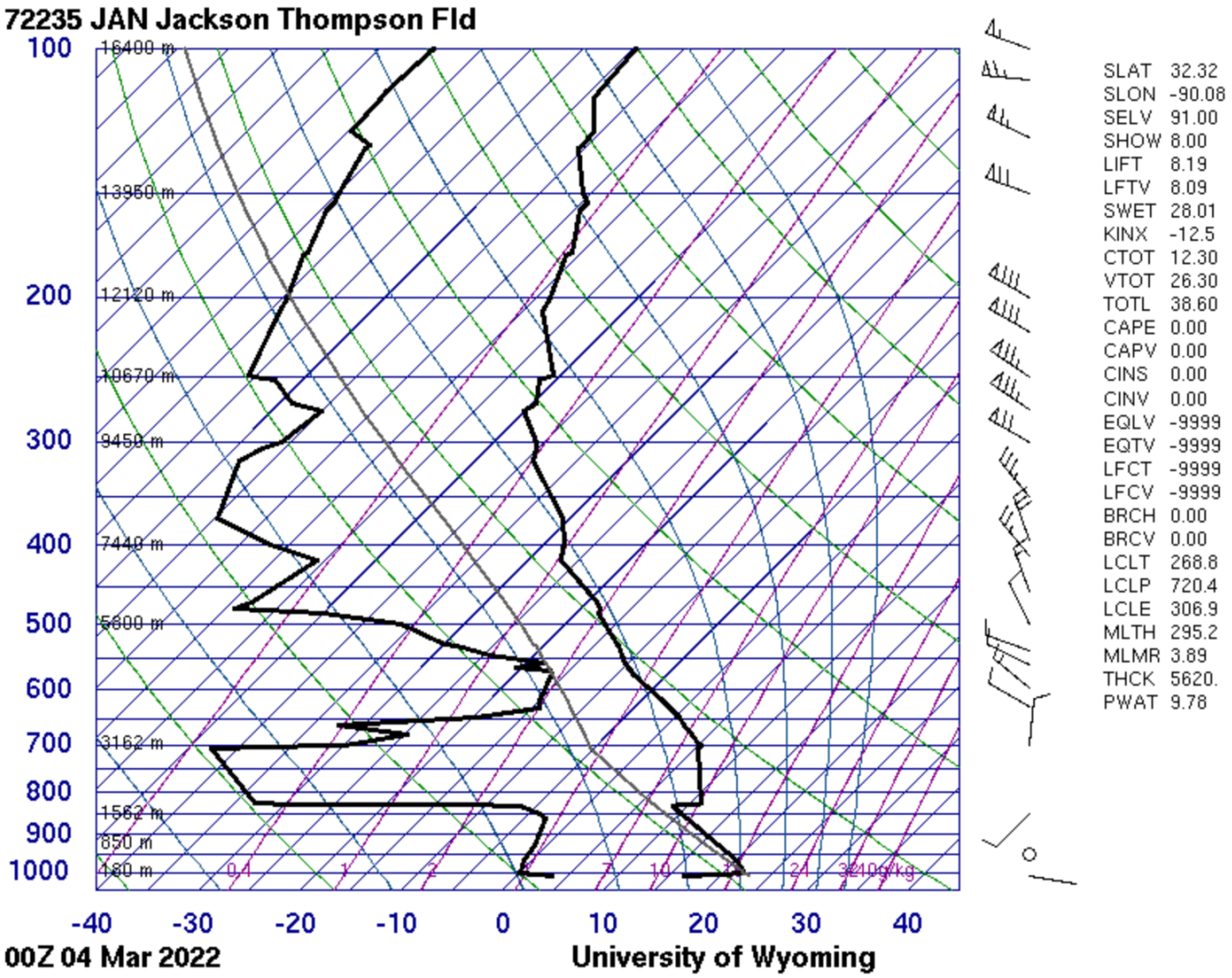
Synopsis: A sprawling surface High-Pressure system was dominant over the southeastern United States in the days leading up to and during the prescribed fire exceptional event on March 3rd through the 4th, 2022. The 12Z surface analysis map for March 3, 2022, shows this area of High-Pressure centered over the southeastern United States with a central pressure around 1023 mb, extending its influence westward across the Midsouth. Considering that numerous fires were reportedly ongoing on these days and prior, the meteorological conditions were conducive for an air quality event. This strong and broad surface High-Pressure led to a stable atmosphere and very light surface winds, creating stagnant conditions. These stagnant conditions allowed for the accumulation of smoke near the surface from the ongoing fires, particularly impacting the Midsouth and other parts of the southeastern United States.



The 12Z surface analysis (March 3rd, 2022, at 6 AM CST) 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.

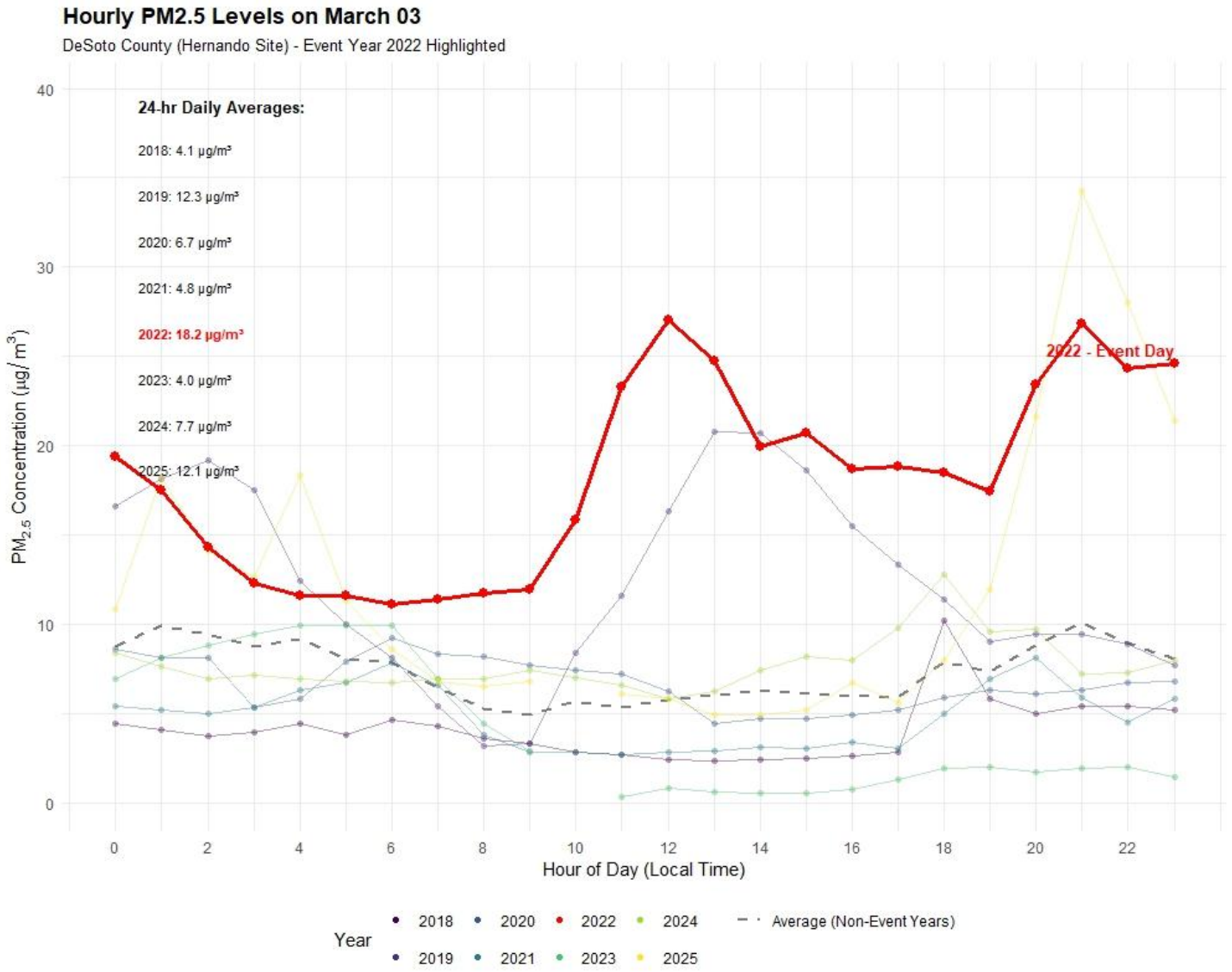


Evening of March the 3rd, when sounding was launched, shows low level nocturnal inversion setting up once again in late evening hours, trapping smoke near the surface from ongoing prescribed fires across the Midsouth and Southeastern United States.

The HYSPLIT model output, displaying a 24-hour back trajectory ending at the Hernando monitor at 00:00 CST on March 3, 2022, illustrates the prevailing atmospheric conditions. Notably, during this 24-hour period, the air parcels at the lower levels (represented by the 10m and 50m trajectories) show very minimal travel. This pattern across all three levels, especially the near-surface stagnation, signifies very weak ventilation. These stagnant conditions, in combination with what is depicted as heavy smoke from numerous prescribed fires in the AirNow Navigator image, likely led to the accumulation and persistence of particulate matter, resulting in elevated PM2.5 values not only at the Hernando monitor but also contributing to widespread high PM2.5 concentrations across the Midsouth.

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
HERNANDO/280330002/PM2.5-88101/3	03/03/22	21.3	19.4	16.2	14.2	13.5	13.5	13	13.3	13.6	13.8	16.7	24.2	27.9	25.6	20.8	21.6	19.6	19.7	19.4	19.3	25.3	28.7	26.2	26.5	19.72	28.7

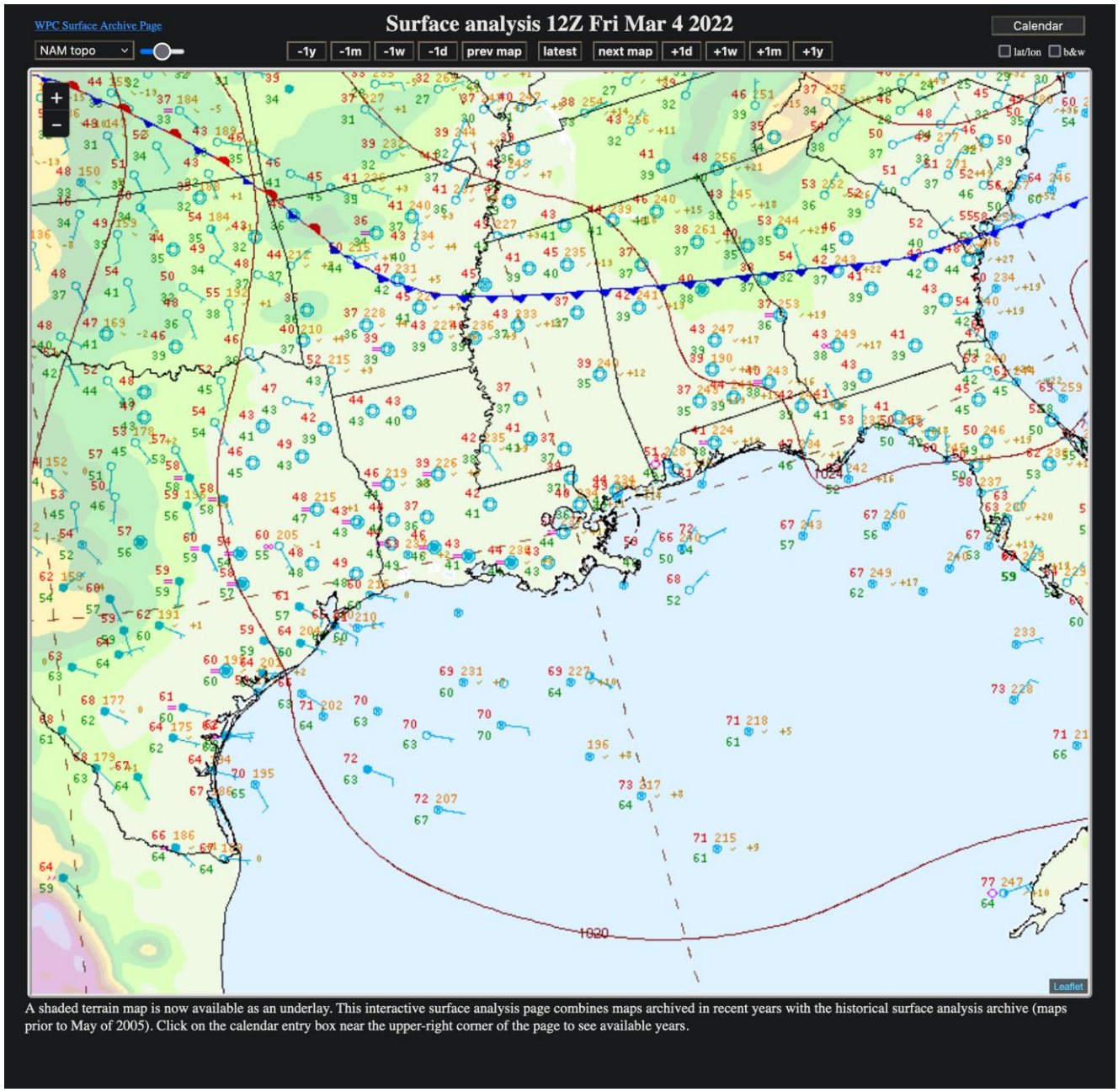
The PM2.5 data from the Hernando site, as depicted above, shows elevated concentrations on March 3rd, 2022, persisting throughout much of the day. This was likely due to a combination of ongoing prescribed fires and stagnant atmospheric conditions caused by a strong High-Pressure system, which inhibited the ventilation and dispersion of pollutants. Consequently, PM2.5 values remained elevated, resulting in a 24-hour daily average of 19.72 $\mu g/m^3$.



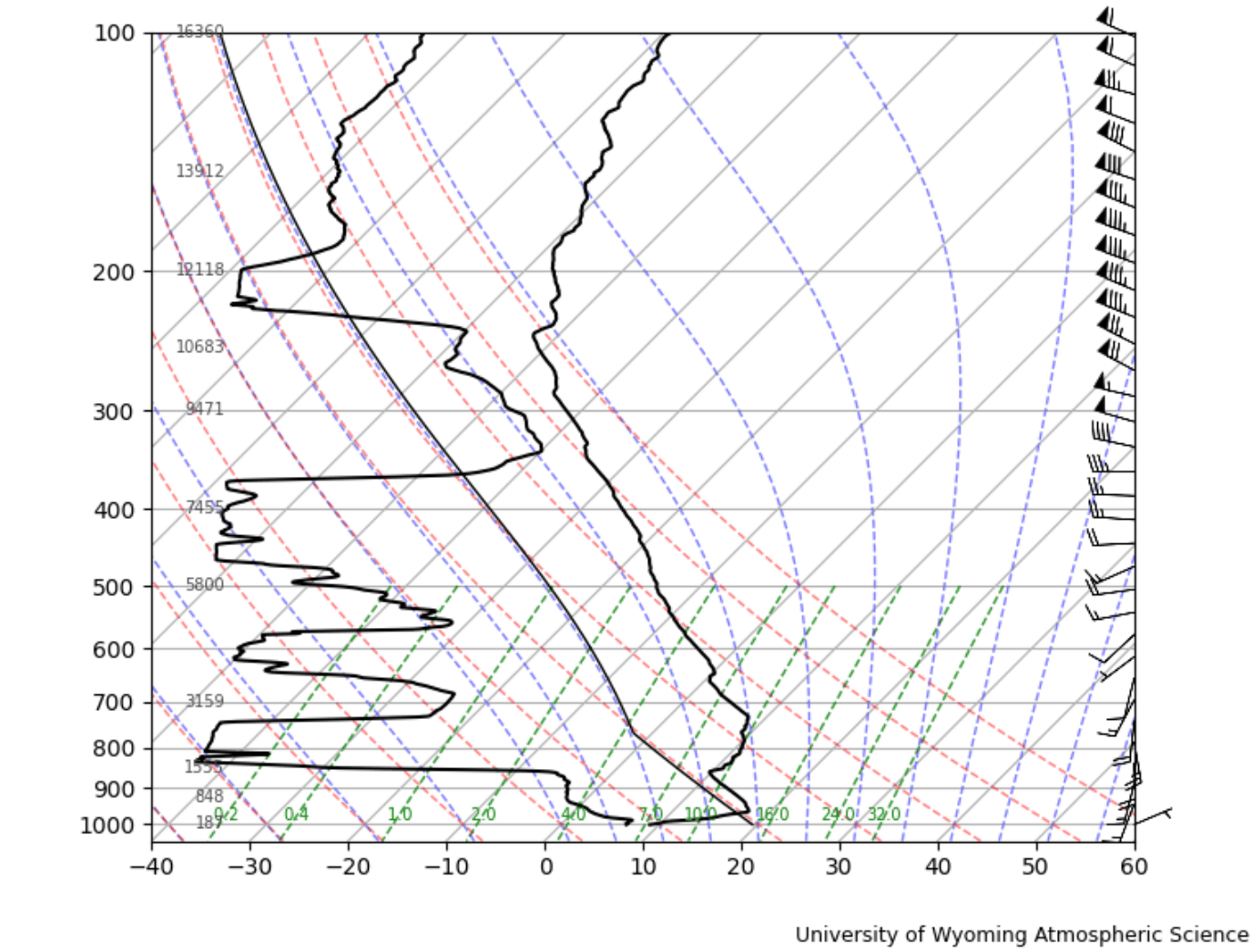
The hourly time series plot in the figure above illustrates PM2.5 levels for March 3rd across the eight-year period shown (2018-2025). It clearly highlights that the PM2.5 values in 2022 (identified as the 'Event Day' and marked in red) were significantly higher throughout the day compared to most other years and notably above the 'Average (Non-Event Years)' (represented by the dashed line).

March 4th: On March 4th, 2022, the meteorological conditions over DeSoto County continued to favor the accumulation of particulate matter. Following the passage of a very weak frontal boundary south of the county during the overnight hours of March 3rd into March 4th, High-Pressure began to build in from the north. The 12Z surface analysis map for March 4th shows this High-Pressure system centered over the Carolinas, extending its influence westward. These conditions likely led to calm or very light winds overnight, enabling the development of a shallow nocturnal inversion. This inversion would have trapped smoke from the previous day's prescribed fires close to the surface.

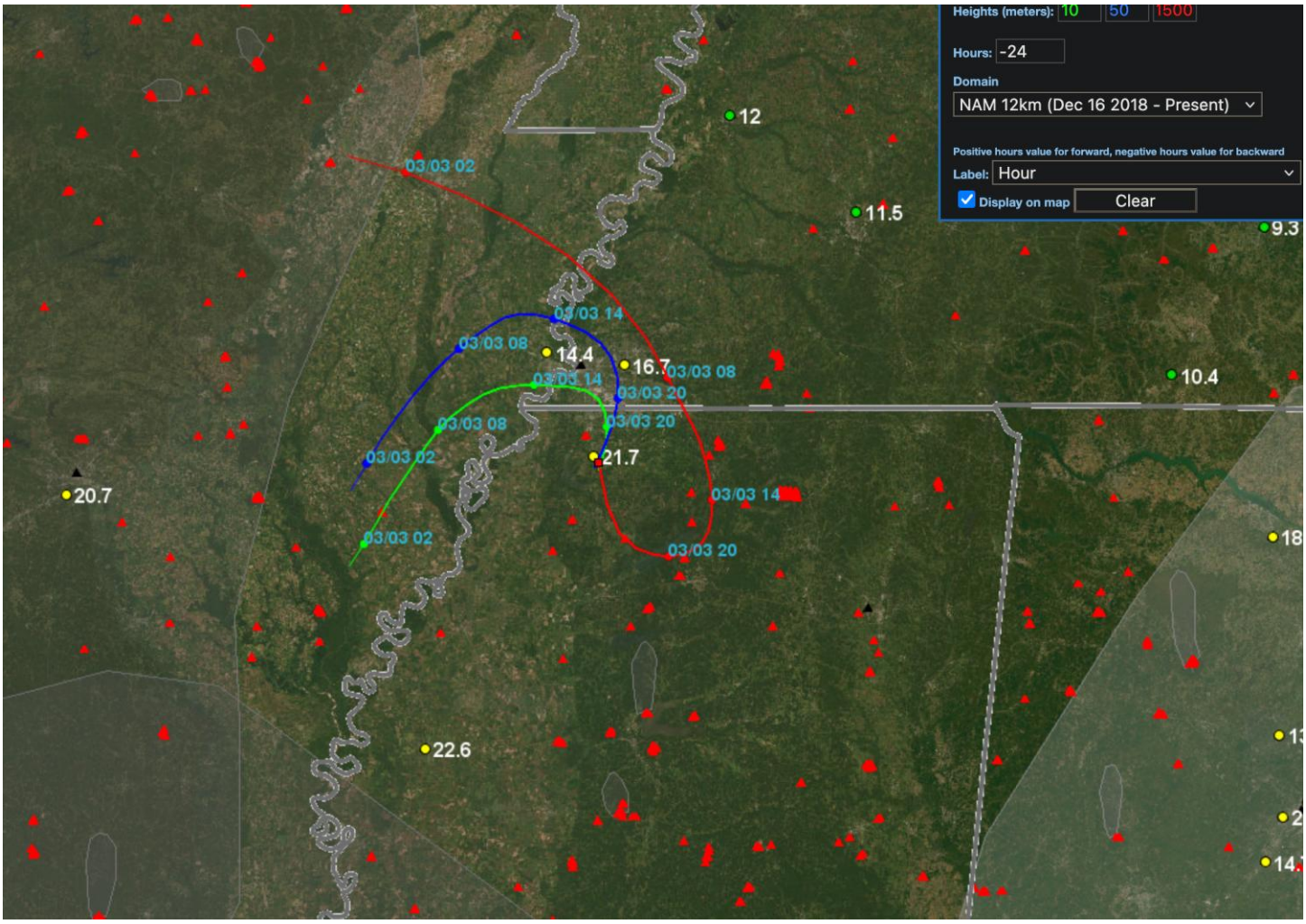
Later in the day on March 4th, this weak boundary is described as having moved back north of the area as a warm front, allowing a very light southerly flow to develop, particularly during the early afternoon hours. However, stagnant or calm conditions are noted as redeveloping in the evening and subsequent overnight period. The cumulative effect of smoke accumulation from previous days, coupled with these persistently stagnant conditions under the influence of High-Pressure and ongoing prescribed fire activity, meant that PM2.5 values remained elevated. This resulted in a 24-hour average PM2.5 concentration of 21.73 µg/m^3 for March 4th.



The 12Z surface analysis (March 4th, 2022, at 6 AM CDT) shows frontal boundary moving south of DeSoto allowing for a low-level nocturnal inversion to set up during the overnight/morning hours on the 4^{th,} indicated by calm conditions over the Memphis MSA indicated on the surface analysis, helping to trap prescribed fire smoke close to the surface, elevating PM2.5 values.



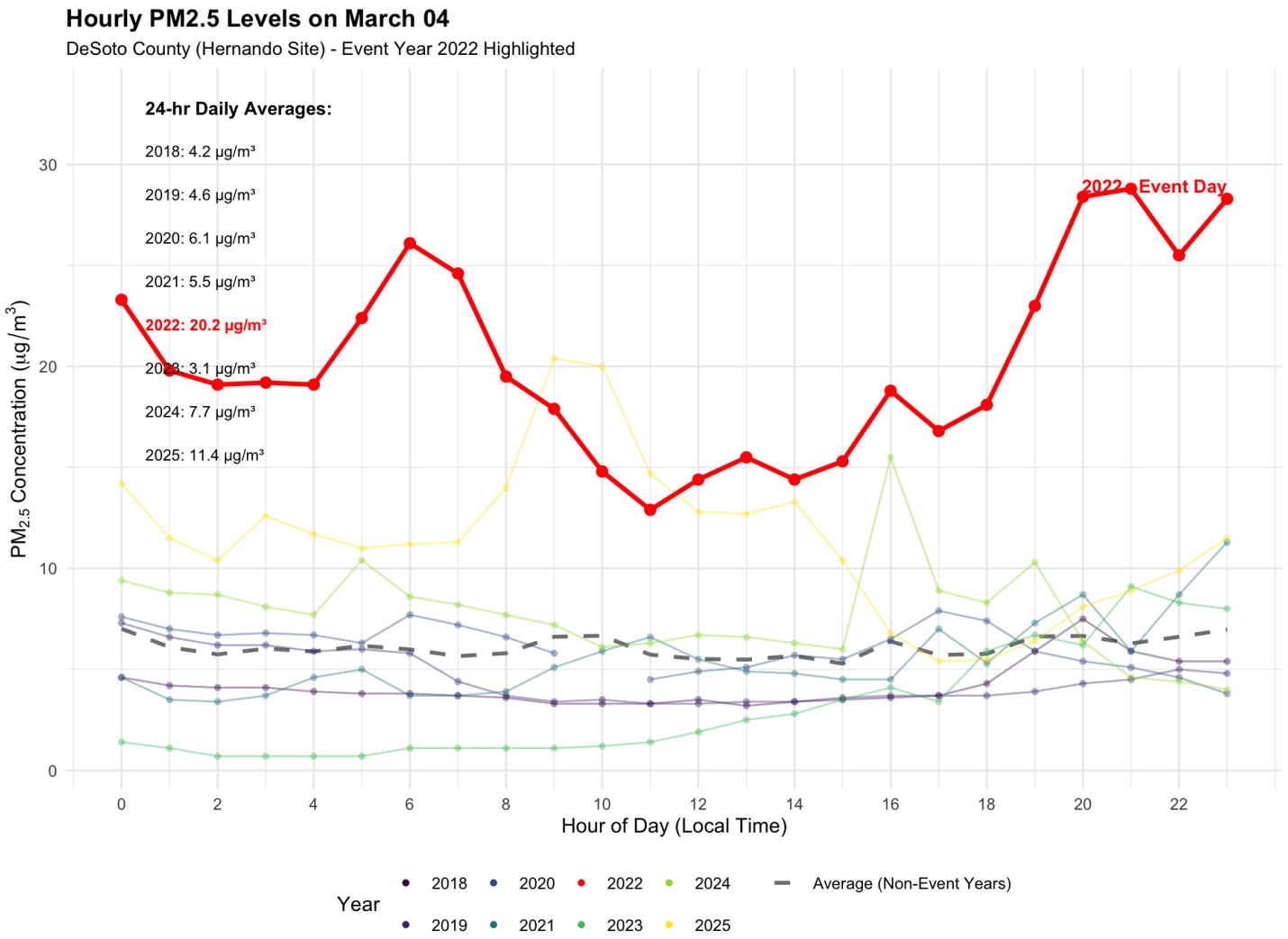
12z sounding from Little Rock Arkansas the morning of March 4th, 2022, shows strong low level nocturnal inversion that had formed close to the surface, trapping previous days smoke, keeping PM2.5 values elevated over the region.



The HYSPLIT model output shows a 24-hour back trajectory ending at the Hernando monitor, representing conditions leading into the night of March 3rd and the early hours of March 4th. Notice how, during this 24-hour period, the air parcels at all three depicted levels (likely 10m, 50m, and 1500m) have traveled very short distances. This indicates extremely stagnant atmospheric conditions. Such stagnation would have inhibited the dispersion of pollutants, contributing to elevated PM2.5 values observed during the night of March 3rd and into March 4th. This lack of ventilation, in conjunction with the presence of significant smoke from ongoing fires (as referenced previously), likely resulted in elevated PM2.5 concentrations, not only impacting the Hernando monitor but also contributing to higher PM levels across broader areas of 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
HERNANDO/280330002/PM2.5-88101/3	03/04/22	25.2	21.7	21	21.1	21	24.3	28	26.5	21.4	18.8	15.7	13.8	15.3	16.4	15.3	16.2	19.7	17.7	19	24.9	30.3	30.7	27.4	30.2	21.73	30.7

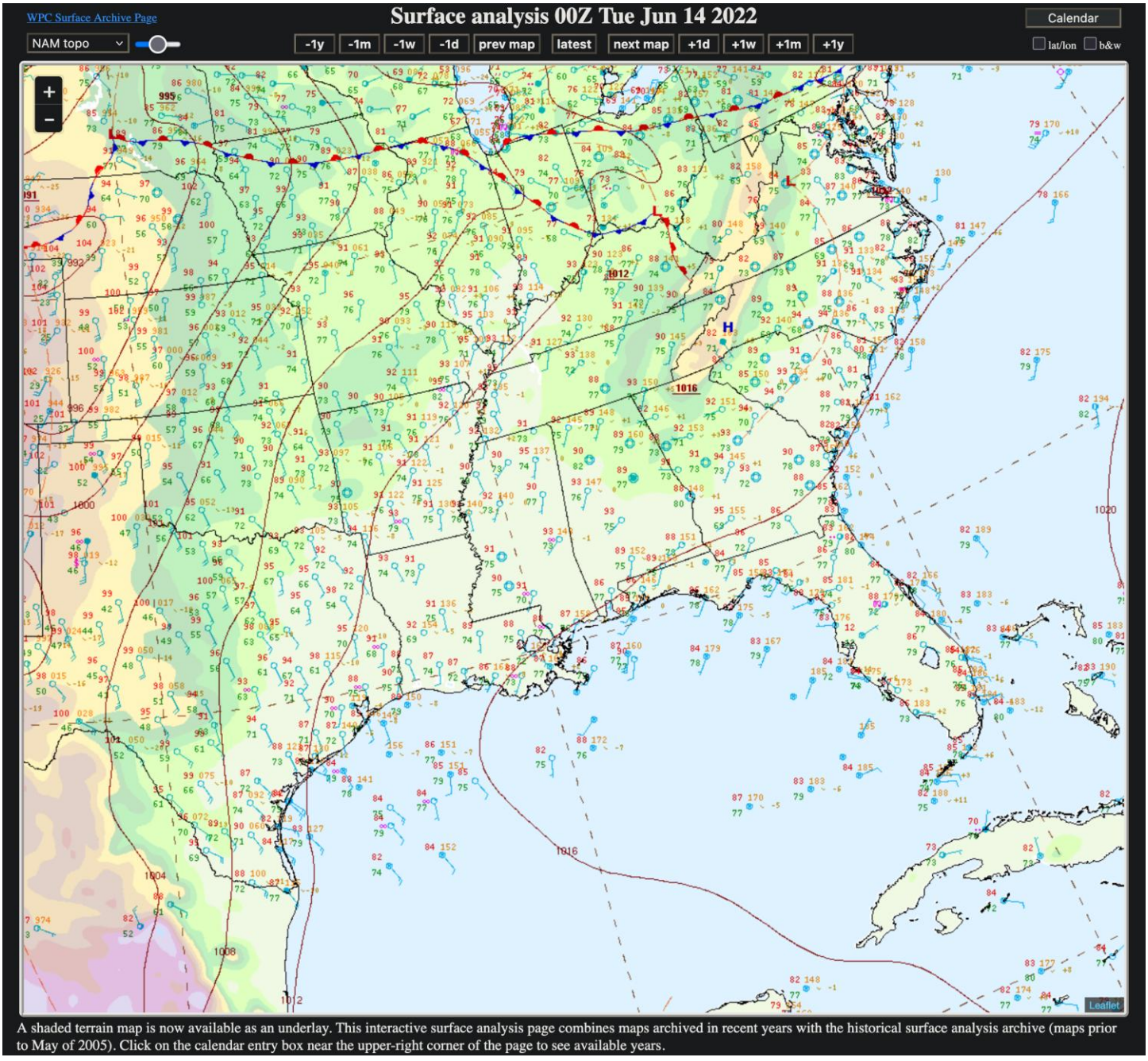
The PM2.5 values from the DeSoto site, depicted above for March 4th, show elevated concentrations, particularly in the early morning hours (e.g., 25.2 µg/m^3 at hour 0, peaking at 28.0 µg/m^3 at hour 6). Values then generally decreased during the daytime, reaching a low of 13.8 µg/m^3 at hour 11, which is consistent with typical diurnal patterns influenced by increasing atmospheric mixing heights. Subsequently, in the evening, as mixing heights likely diminished and a low-level nocturnal inversion began to develop, PM2.5 concentrations started to increase again, rising to the daily maximum of 30.7 µg/m^3 at hour 21. This pattern resulted in a 24-hour daily average PM2.5 concentration of 21.73 µg/m^3 at the DeSoto site.



The hourly time series plot in the figure above illustrates PM2.5 levels for March 4th across the eight-year period shown (2018-2025). It highlights that the PM2.5 values in 2022 (identified as the 'Event Day' and marked in red) were significantly higher throughout the day compared to most other years and notably above the 'Average (Non-Event Years)' (represented by the dashed line).

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	RA	28-033-0002	Hernando	22.4, 33.5, 29.1	1&2	Saharan Dust Exceptional Event Demonstration: June 13-15, 2022

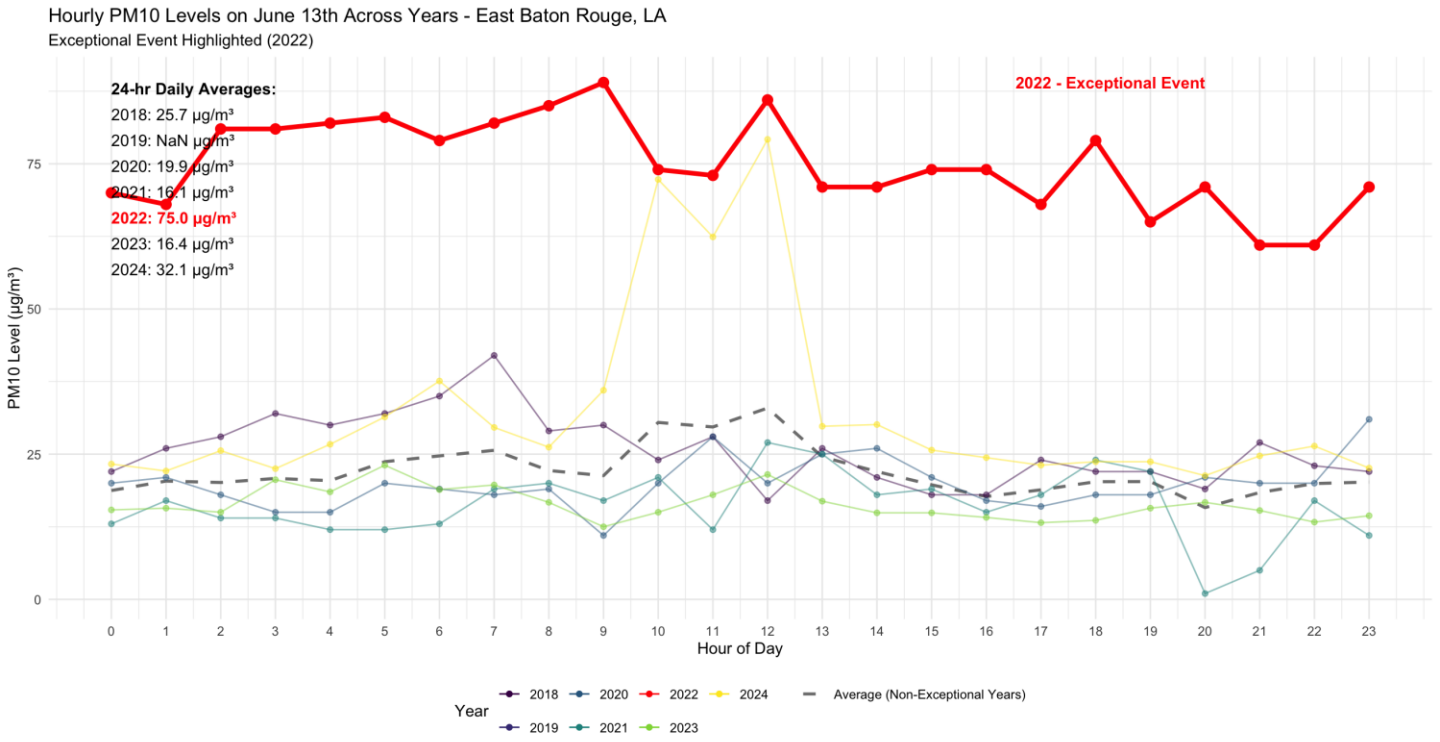
Synopsis: Southerly flow at the surface thanks to Bermuda Ridge in place anchored off the Eastern Seaboard, issuing in deep tropical moisture over the southeastern United States. Imbedded in this southerly flow is Saharan dust making its way from the Atlantic, into the Gulf of Mexico, affecting the Texas,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

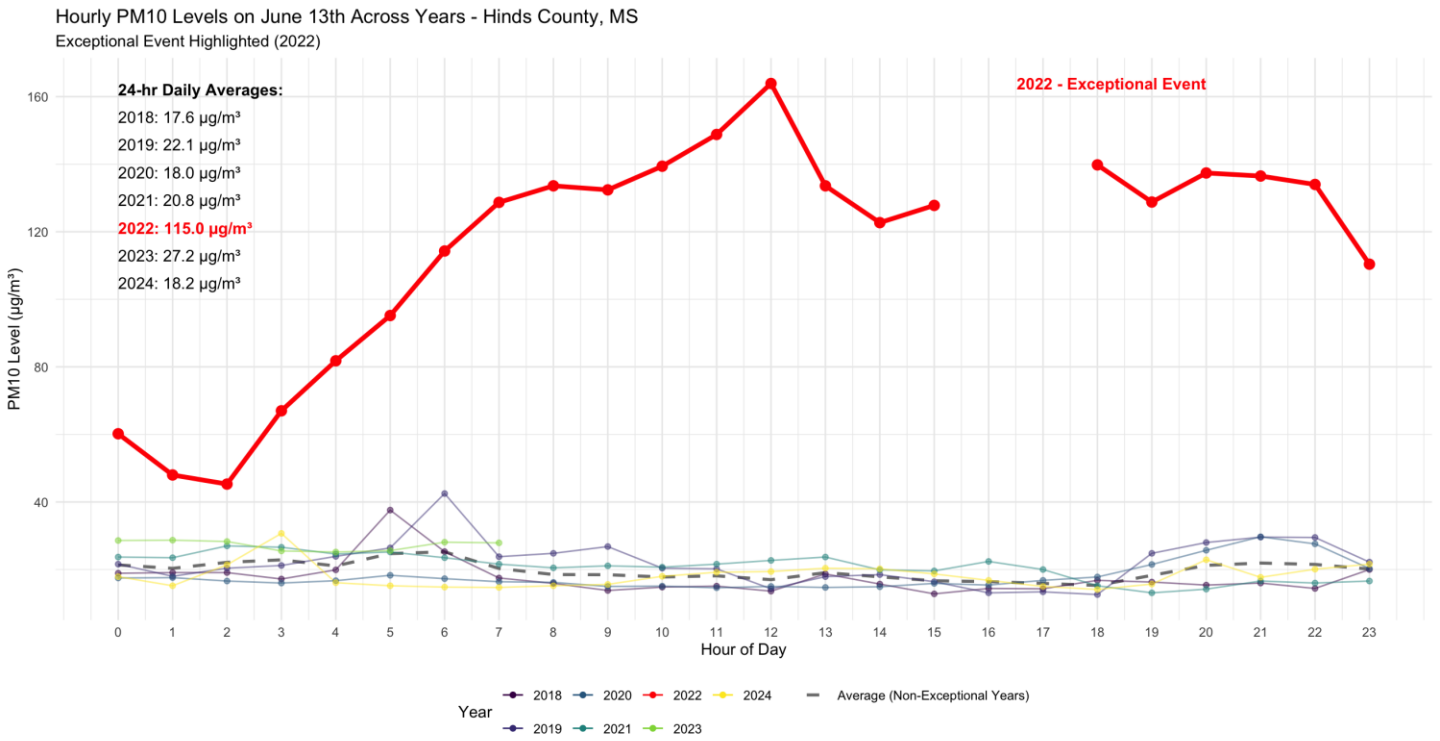


The 00Z surface analysis on June 14th (June 13th, 2022, at 7 PM CDT) shows deep southerly flow around Bermuda Ridge parked over the Atlantic Ocean, helping issue in Saharan Dust that has been transported from the African Continent.

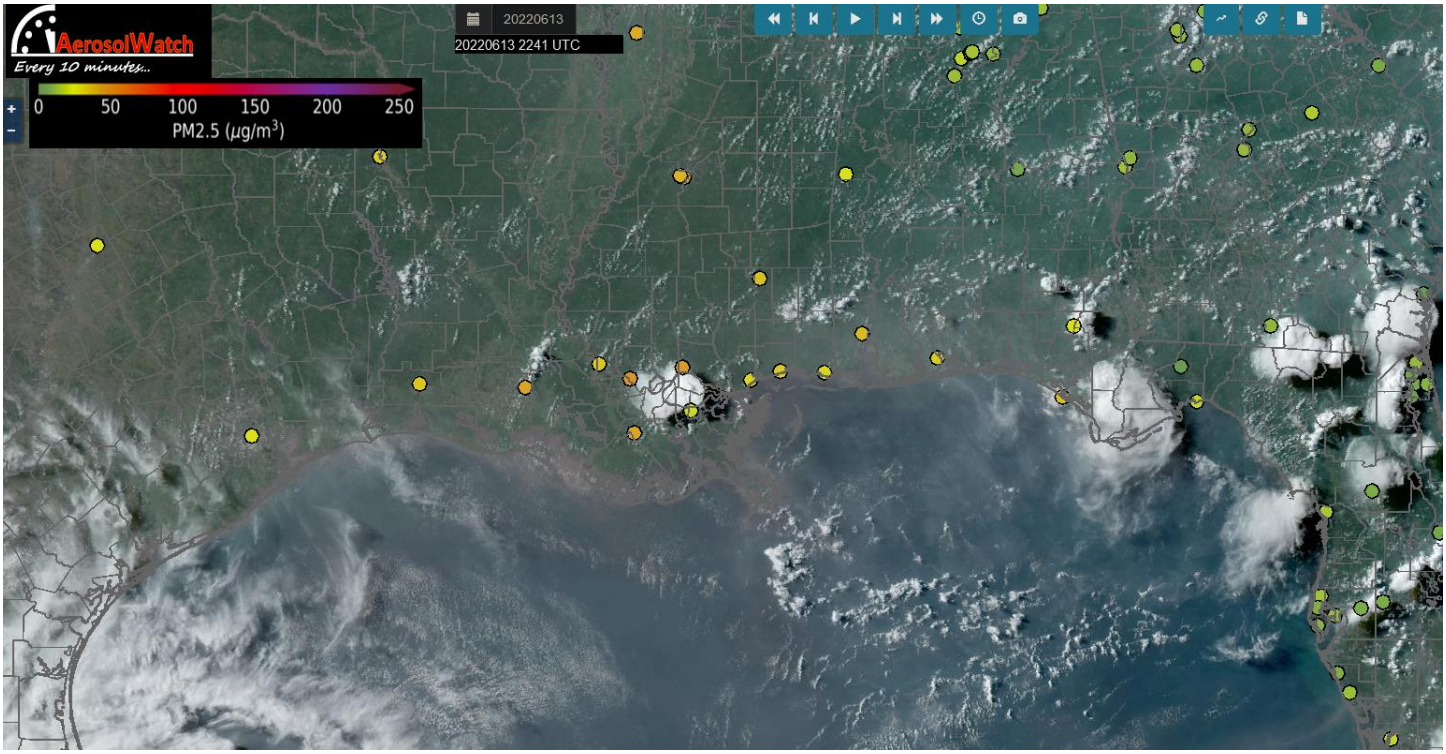
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/13/22	70	68	81	81	82	83	79	82	85	89	74	73	86	71	71	74	74	68	79	65	71	61	61	71	74.96	89
Jackson NCORE/280490020/PM10-81102/1	06/13/22	60	48	45	67	81	95	114	128	133	132	139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

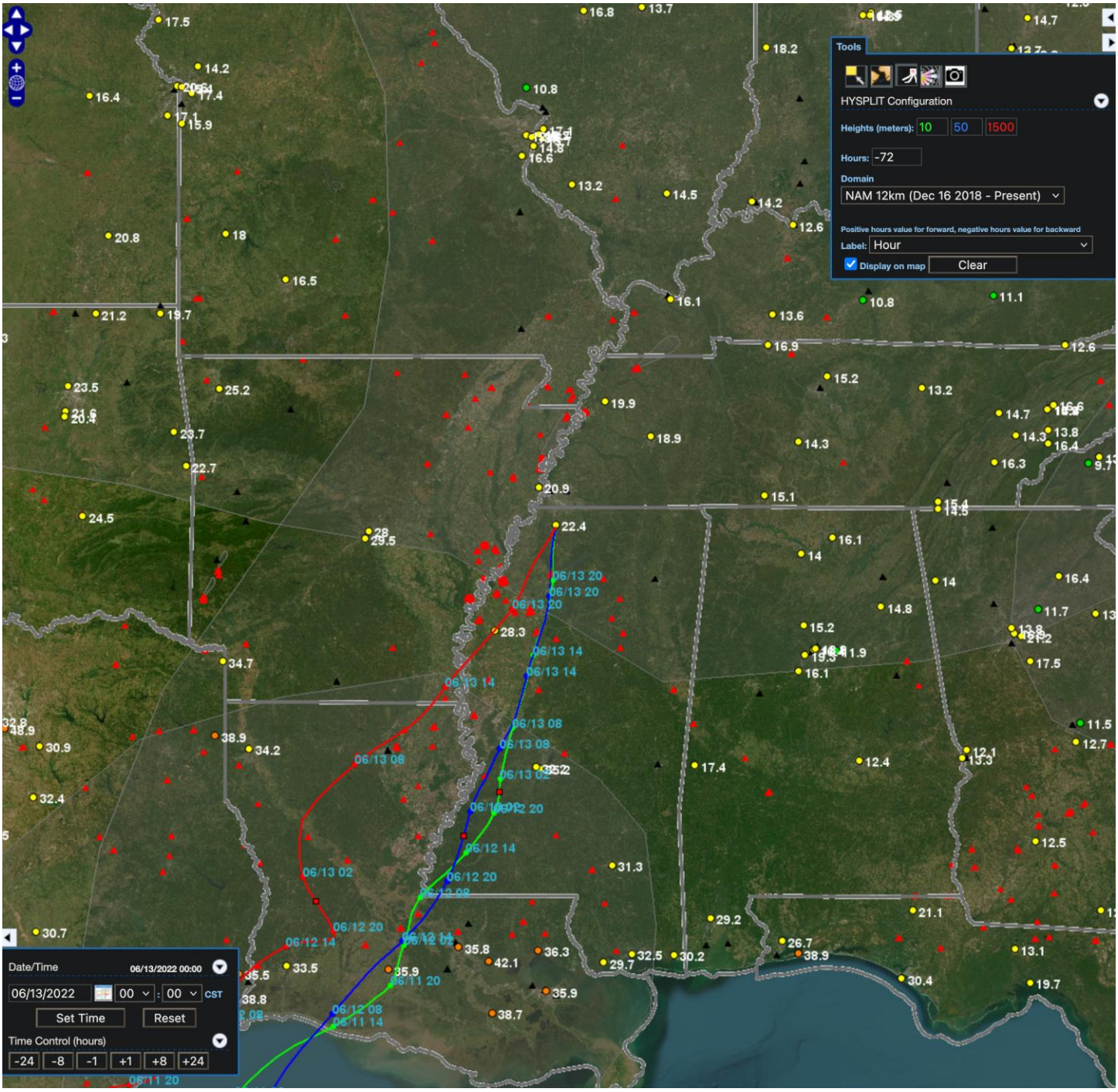




The hourly time series cross-sections in the figures above illustrate PM10 levels over the past seven years (2018-2024) at both the East Baton Rouge PM10 monitoring location and Mississippi's NCORE monitoring station. The plots highlight elevated values in 2022 compared to the average of non-exceptional years, attributable largely to Saharan Dust transport across the Gulf States.



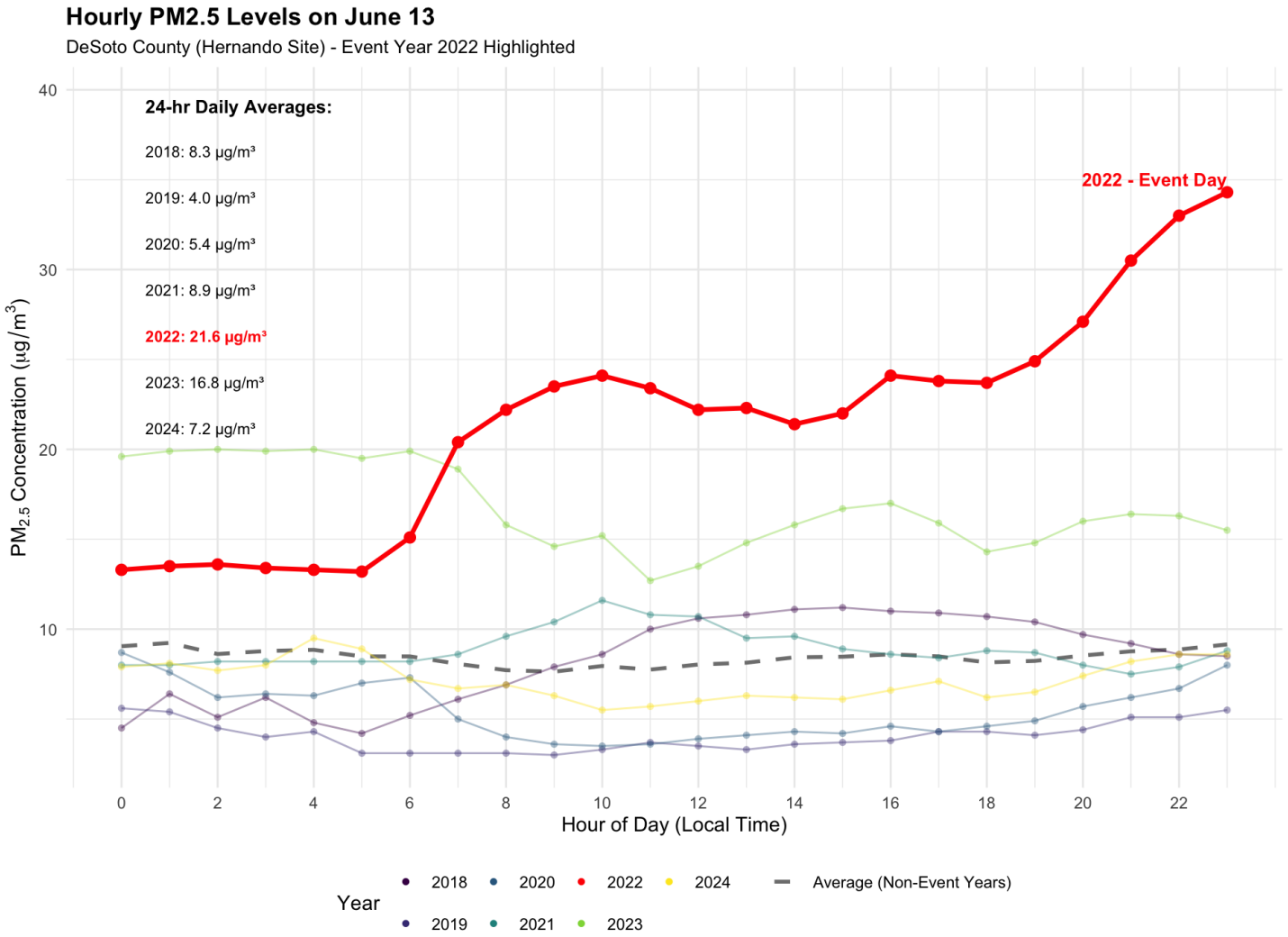
GOES-East GeoColor layer imagry taken at June 13th, 2022 at 2241UTC, showing heavy dust across the northern Gulf of Mexico and inland, across the Gulf States, increasing both PM10 and PM2.5 levels. Shown in the image along with the dust is PM2.5 monitoring site overlays.



The 72-hour HYSPLIT back trajectories ending at the Hernando monitor (00:00 CST, June 14, 2022) show the transport pathways for air parcels at the 10m, 50m, and 1500m levels. These trajectories show southerly flow, with air parcels originating over the Gulf of Mexico and passing through southeastern Louisiana and Mississippi. This region was reportedly experiencing elevated PM2.5 concentrations (exceeding USG levels) due to the presence of Saharan dust. The model thus illustrates the mechanism by which this dust-laden air was advected northward, directly impacting the Hernando monitor and contributing to increased 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
HERNANDO/280330002/PM2.5-88101/3	06/13/22	14.2	14.4	14.5	14.3	14.2	14.1	16	21.3	23.1	24.4	25	24.3	23.1	23.2	22.3	22.9	25	24.7	24.6	25.8	28	31.4	33.9	35.2	22.5	35.2

DeSoto monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 22.5ug/m^3 on June 13, 2022. Notice how as the day progresses, PM2.5 values increase as Saharan Dust is advected in from the south.



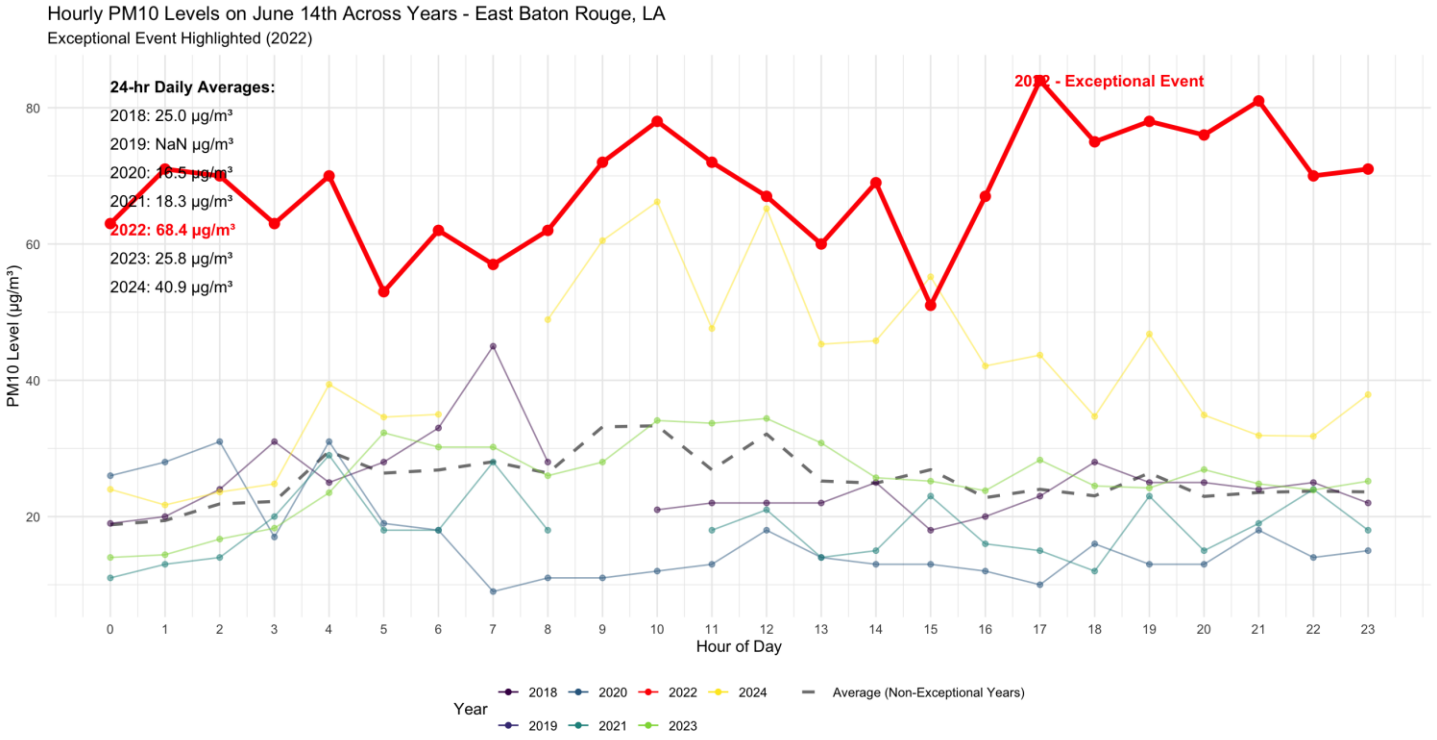
The hourly PM2.5 time series plot for June 13th at the DeSoto County (Hernando Site), displayed above, compares concentrations from 2018 through 2024. The data for 2022, marked as the 'Event Day,' reveals notably higher PM2.5 levels throughout the day compared to the 'Average (Non-Event Years)' and most other individual years. This elevation is attributed primarily to the advection of Saharan dust impacting the Gulf Coast Region and Midsouth.

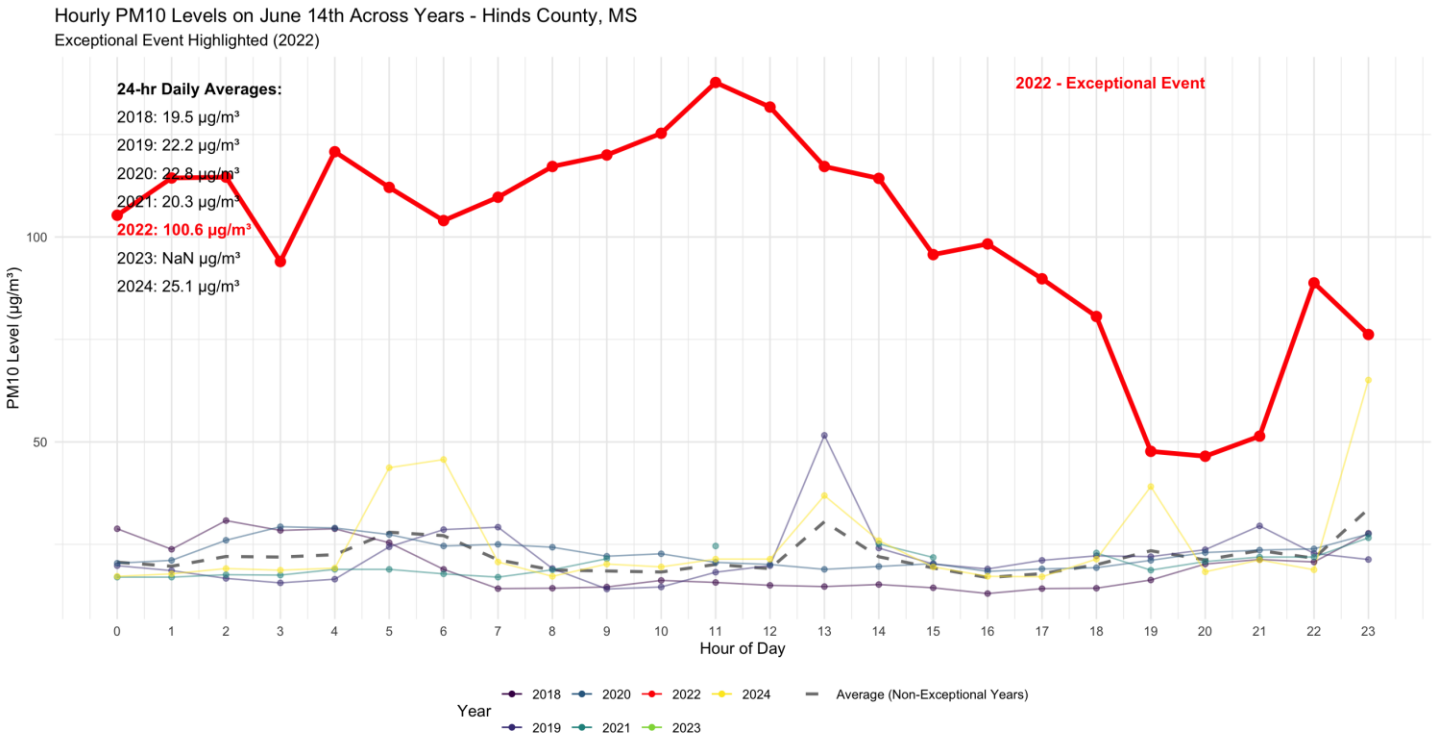
A key feature of the 2022 event day is the progressive increase in PM2.5 concentrations as the day unfolded. Starting at approximately 13 µg/m^3 in the early morning, values climbed steadily, particularly from hour 6 onwards, reaching around 24 µg/m^3 by hour 10 and continuing to rise to over 34 µg/m^3 by the end of the day. This upward trend aligns with the sustained southerly flow transporting higher concentrations of Saharan dust, previously observed over southeastern Louisiana and Mississippi, northward into northern Mississippi and the Hernando monitoring location. As this dust-laden air mass arrived, PM2.5 values at the monitor correspondingly increased.

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.

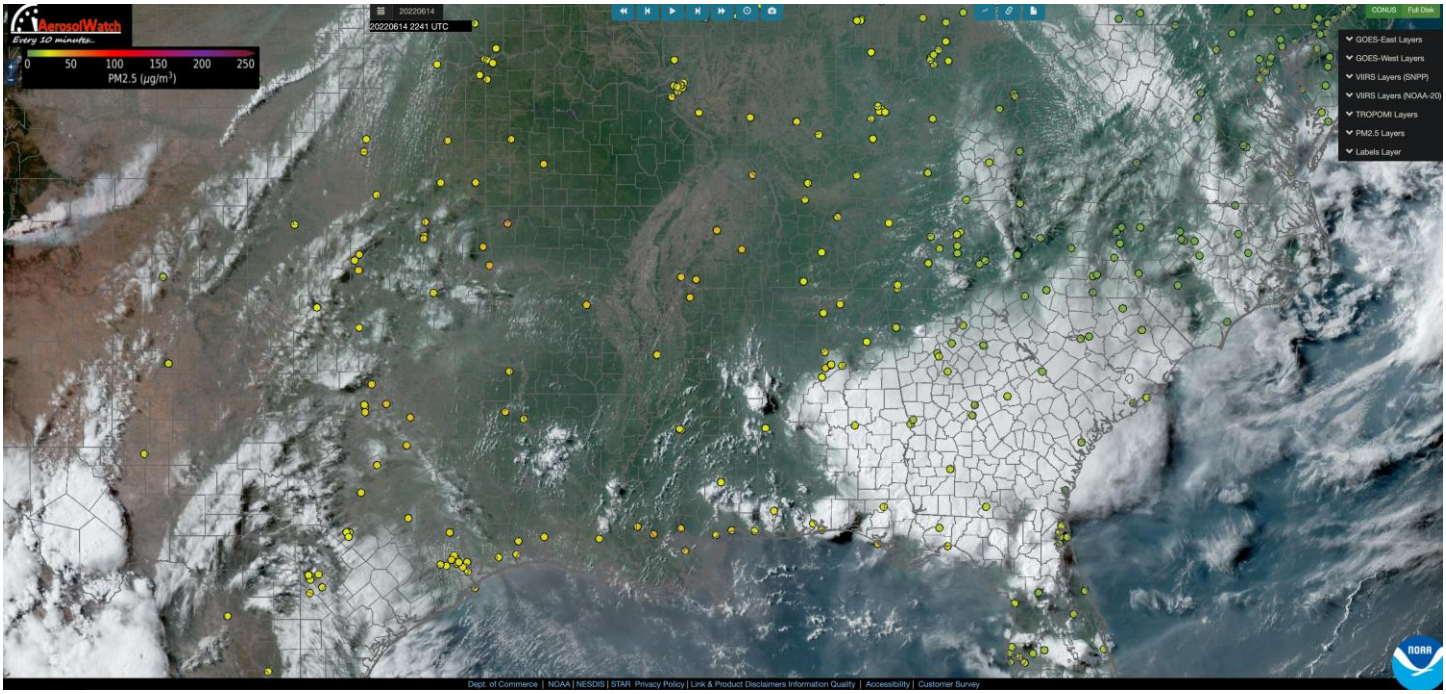
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/14/22	63	71	70	63	70	53	62	57	62	72	78	72	67	60	69	51	67	84	75	78	76	81	70	71	68.42	84
Jackson NCORE/280490020/PM10-81102/1	06/14/22	105	114	114	94	120	112	104	109	117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

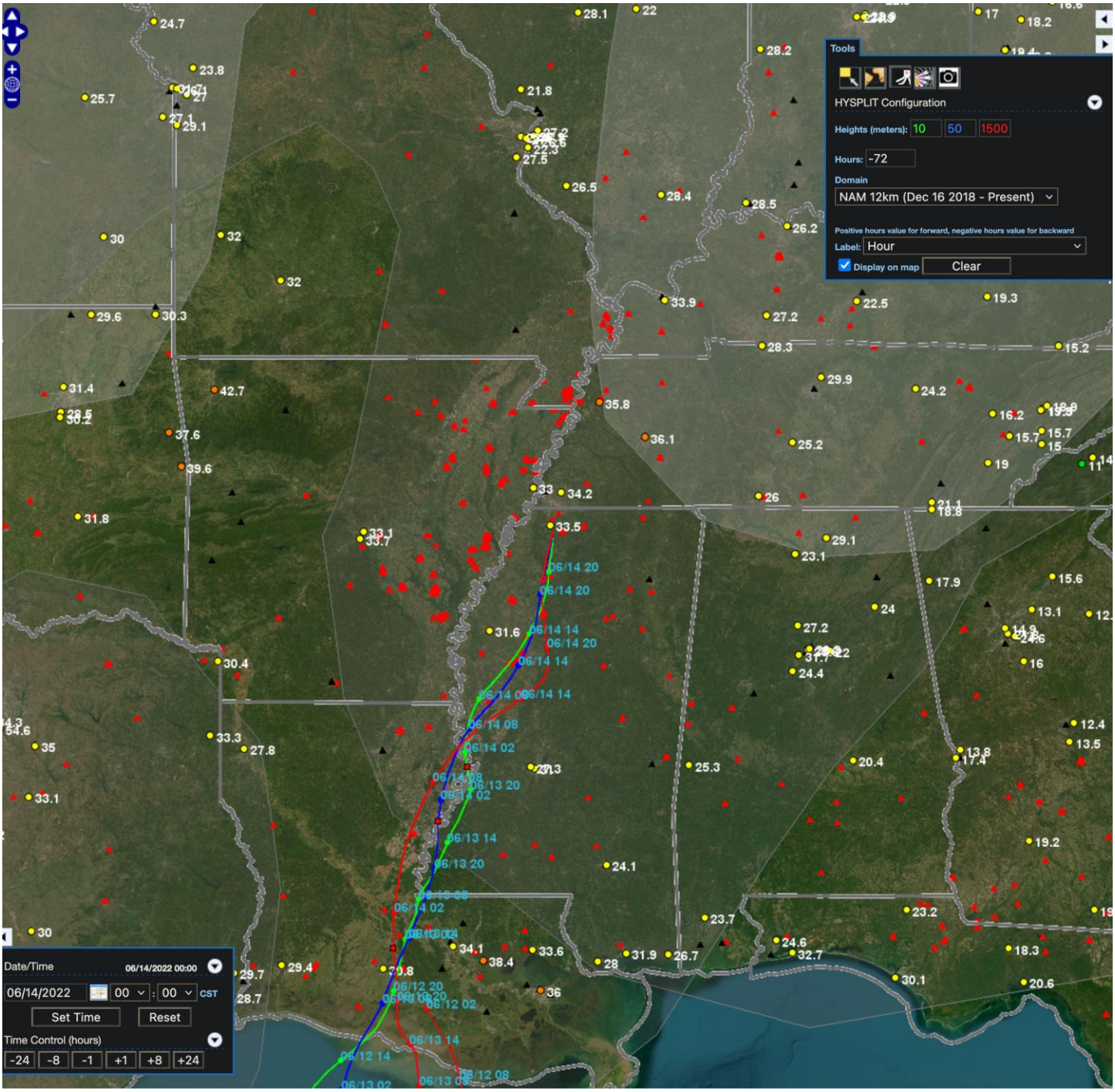




The hourly time series cross-sections in the figures above illustrate PM10 levels over the past seven years (2018-2024) at both the East Baton Rouge PM10 monitoring location and Mississippi's NCORE monitoring station. The plots highlight elevated values in 2022 compared to the average of non-exceptional years, attributable largely to Saharan Dust transport across the Gulf States



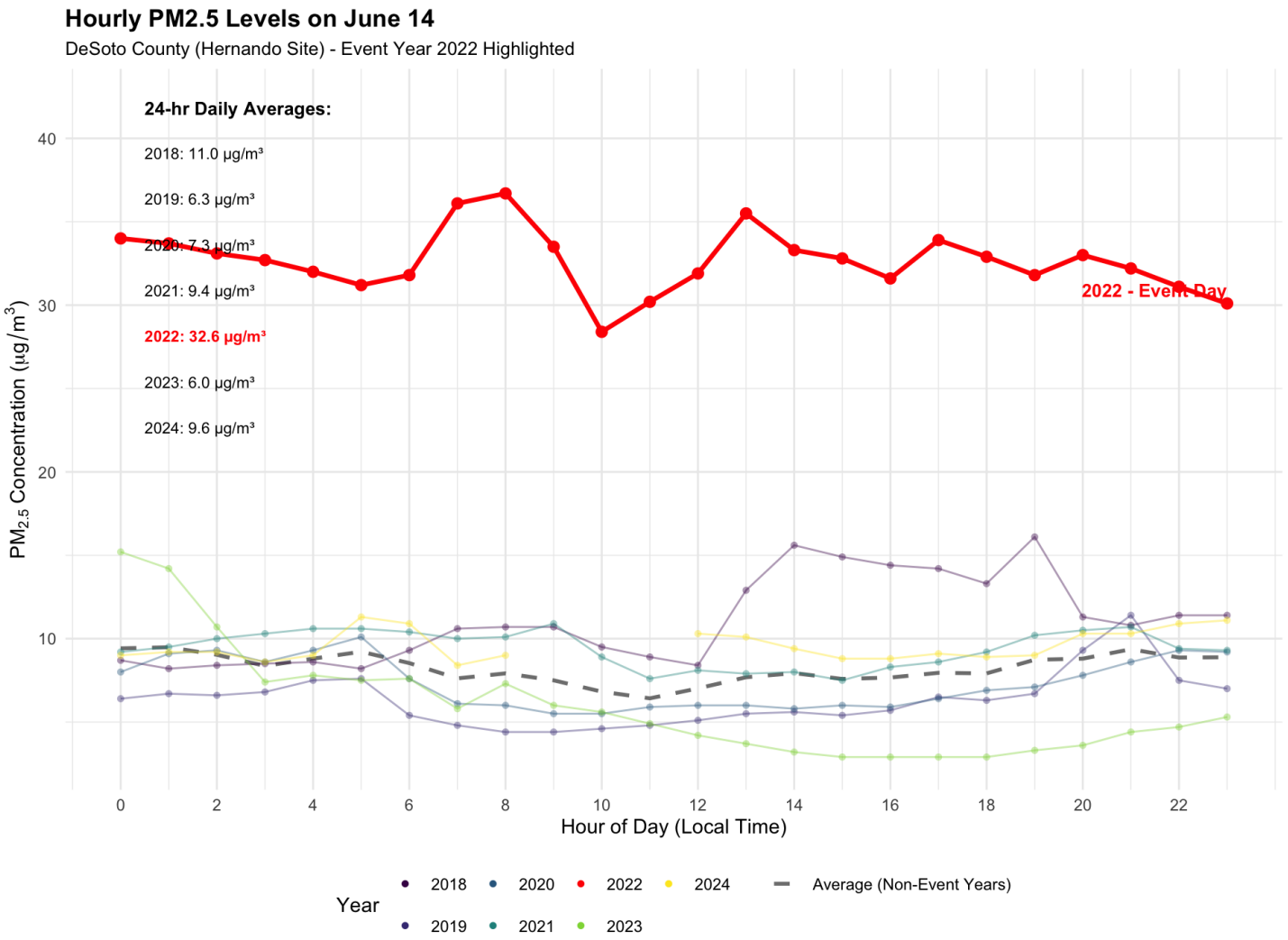
GOES-East GeoColor layer imagry taken at June 14th, 2022 at 2241UTC, showing continued heavy Saharan dust across the northern Gulf of Mexico and inland, across the Gulf States, increasing both PM10 and PM2.5 levels.



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, into the Midsouth 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
HERNANDO/280330002/PM2.5-88101/3	06/14/22	34.9	34.6	34	33.6	32.9	32.1	32.7	37	37.6	34.4	29.3	31.1	32.8	36.4	34.2	33.7	32.5	34.8	33.8	32.7	33.9	33.1	32	31	33.55	37.6

DeSoto monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 33.55 ug/m^3 on June 14, 2022.

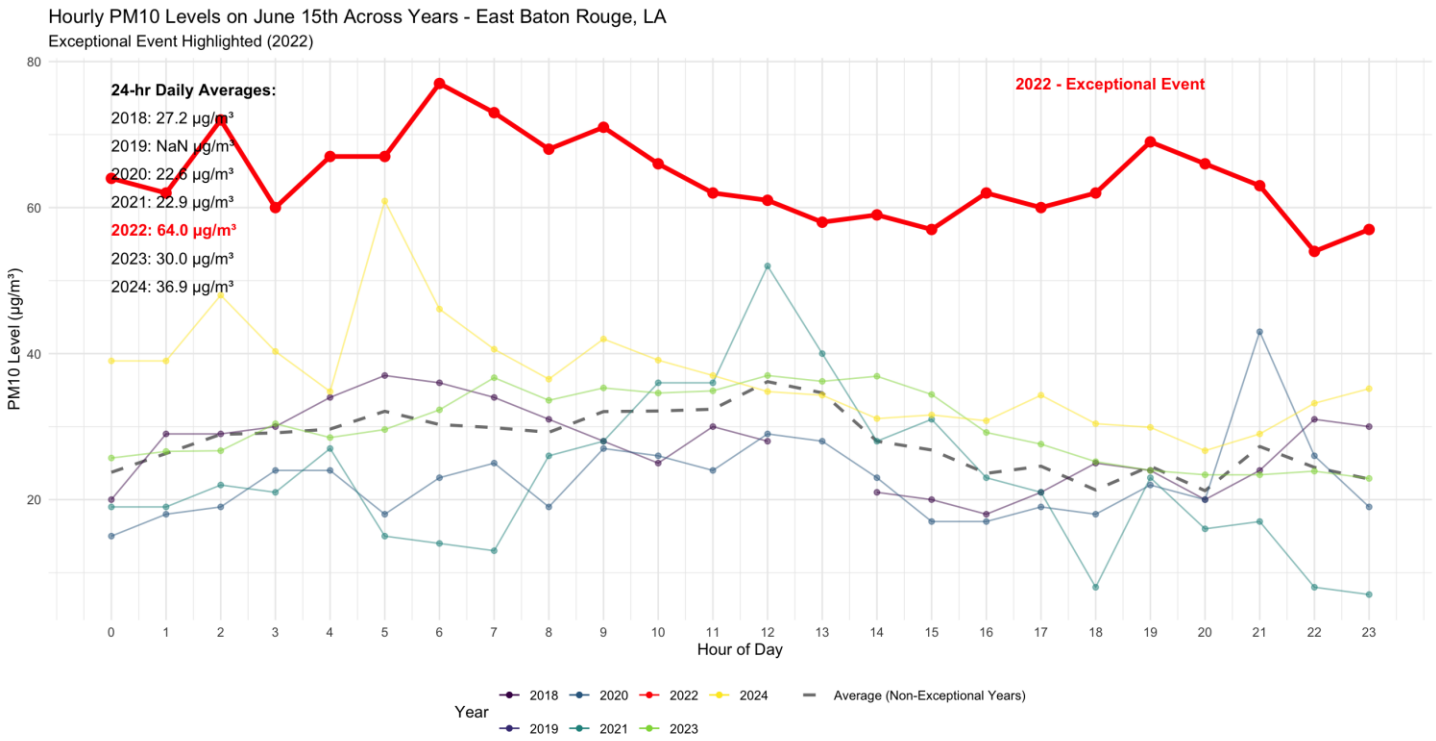


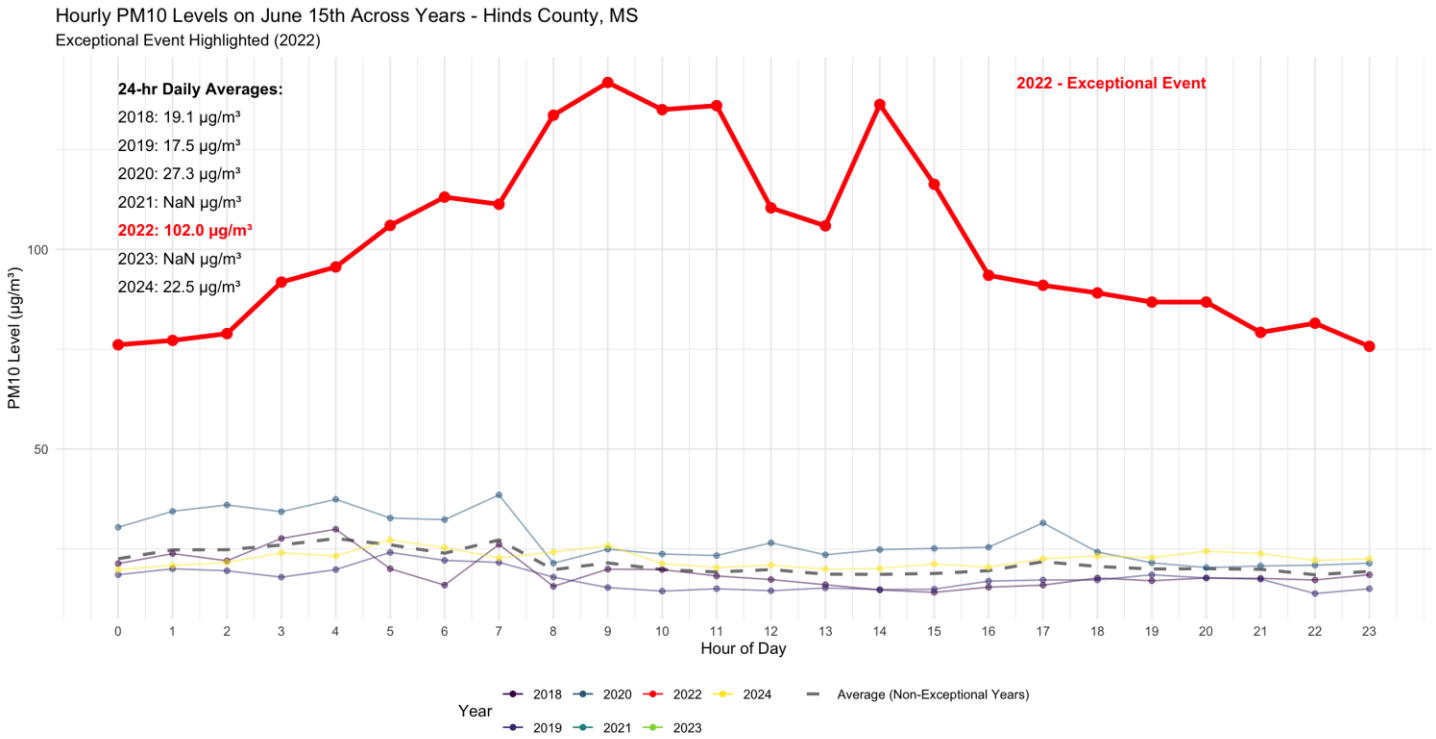
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, for DeSoto county, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to continued Saharan Dust across the Gulf States and Midsouth.

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.

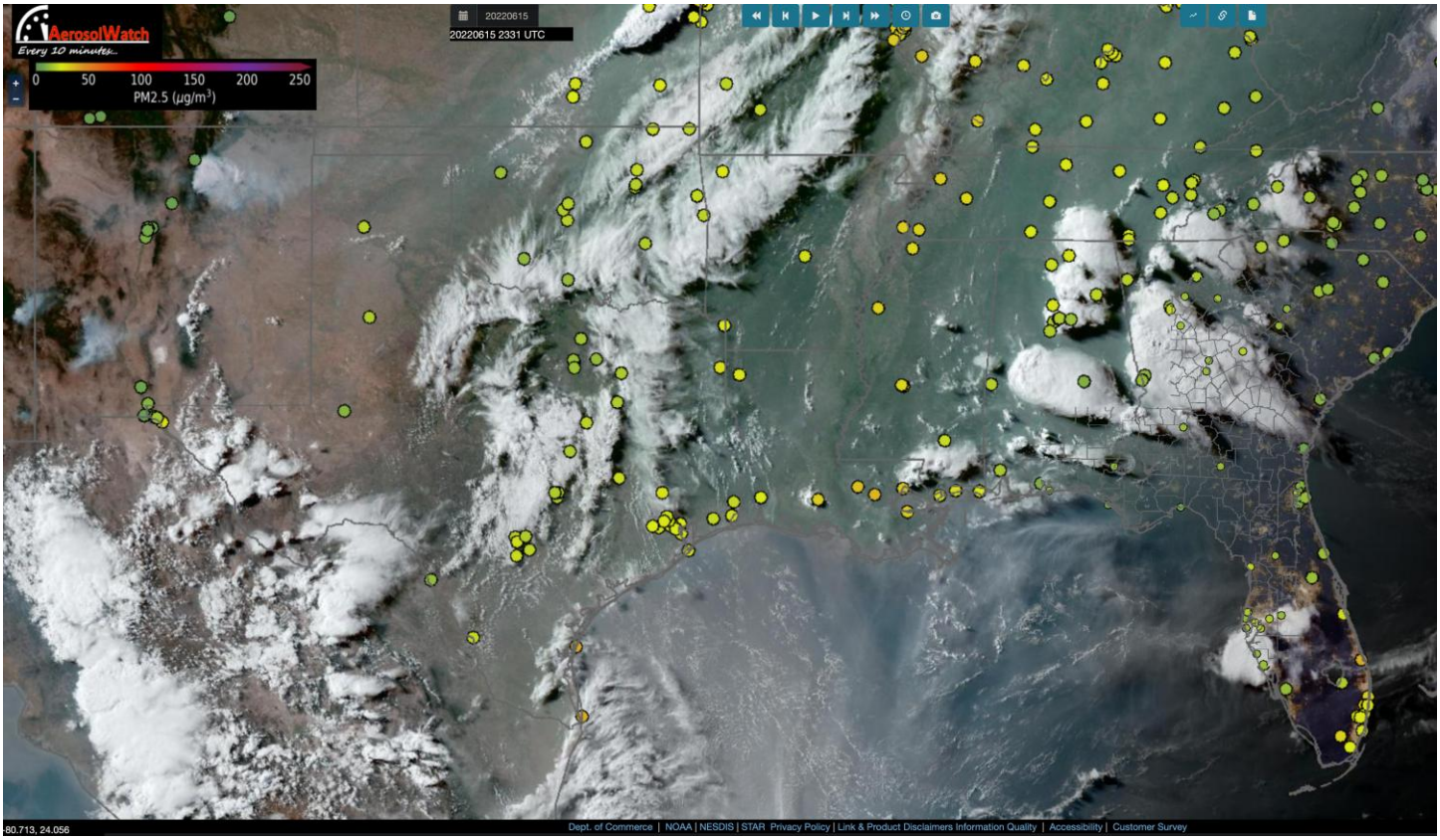
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
Capitol/220330009/PM10-81102/1	06/15/22	64	62	72	60	67	67	77	73	68	71	66	62	61	58	59	57	62	60	62	69	66	63	54	57	64.04	77
Jackson NCORE/280490020/PM10-81102/1	06/15/22	76	77	78	91	95	106	113	111	133	141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

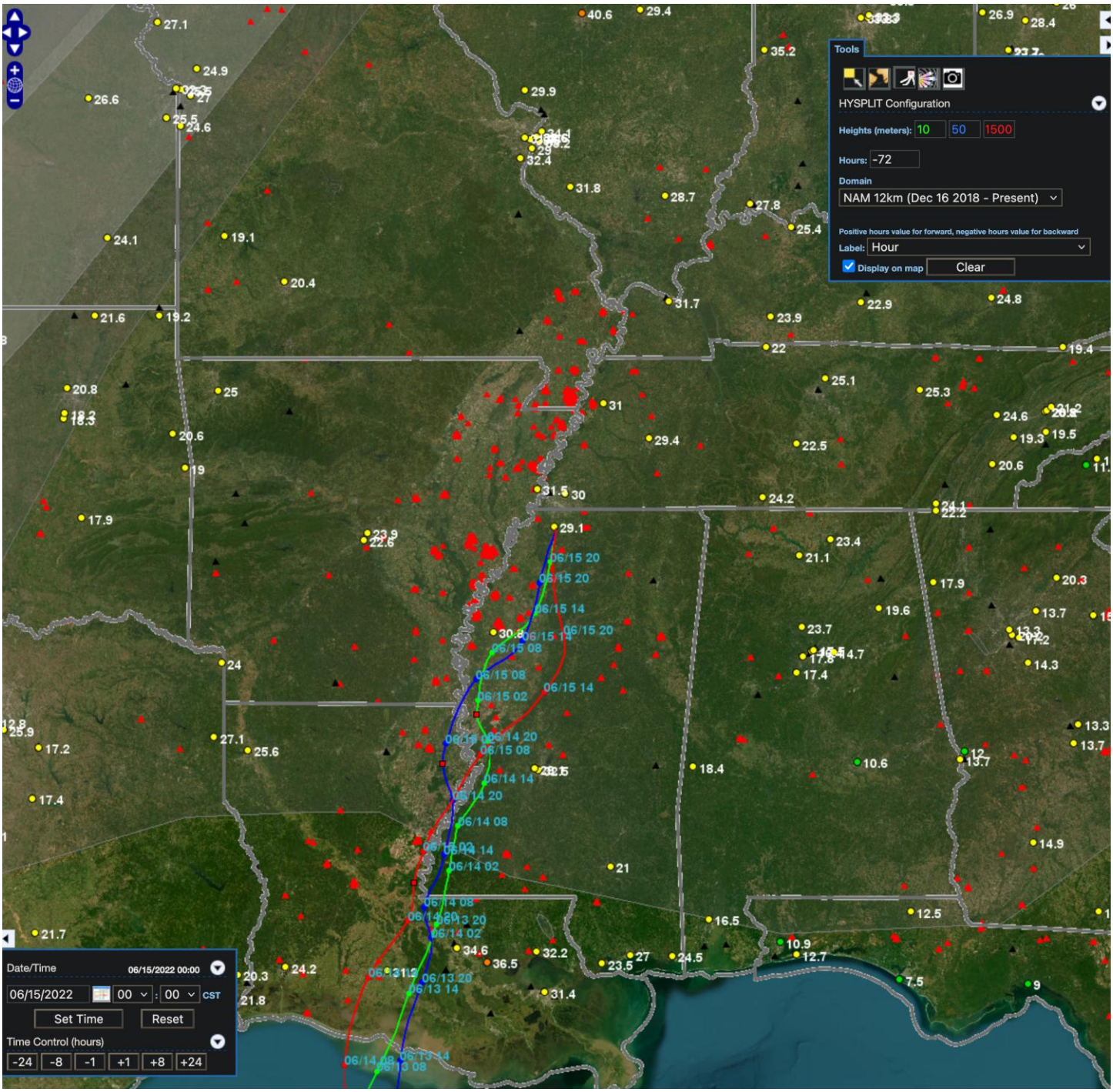




The hourly time series cross-sections in the figures above illustrate PM10 levels over the past seven years (2018-2024) at both the East Baton Rouge PM10 monitoring location and Mississippi's NCORE monitoring station. The plots highlight elevated values in 2022 compared to the average of non-exceptional years, attributable largely to Saharan Dust transport across the Gulf States and Midsouth.



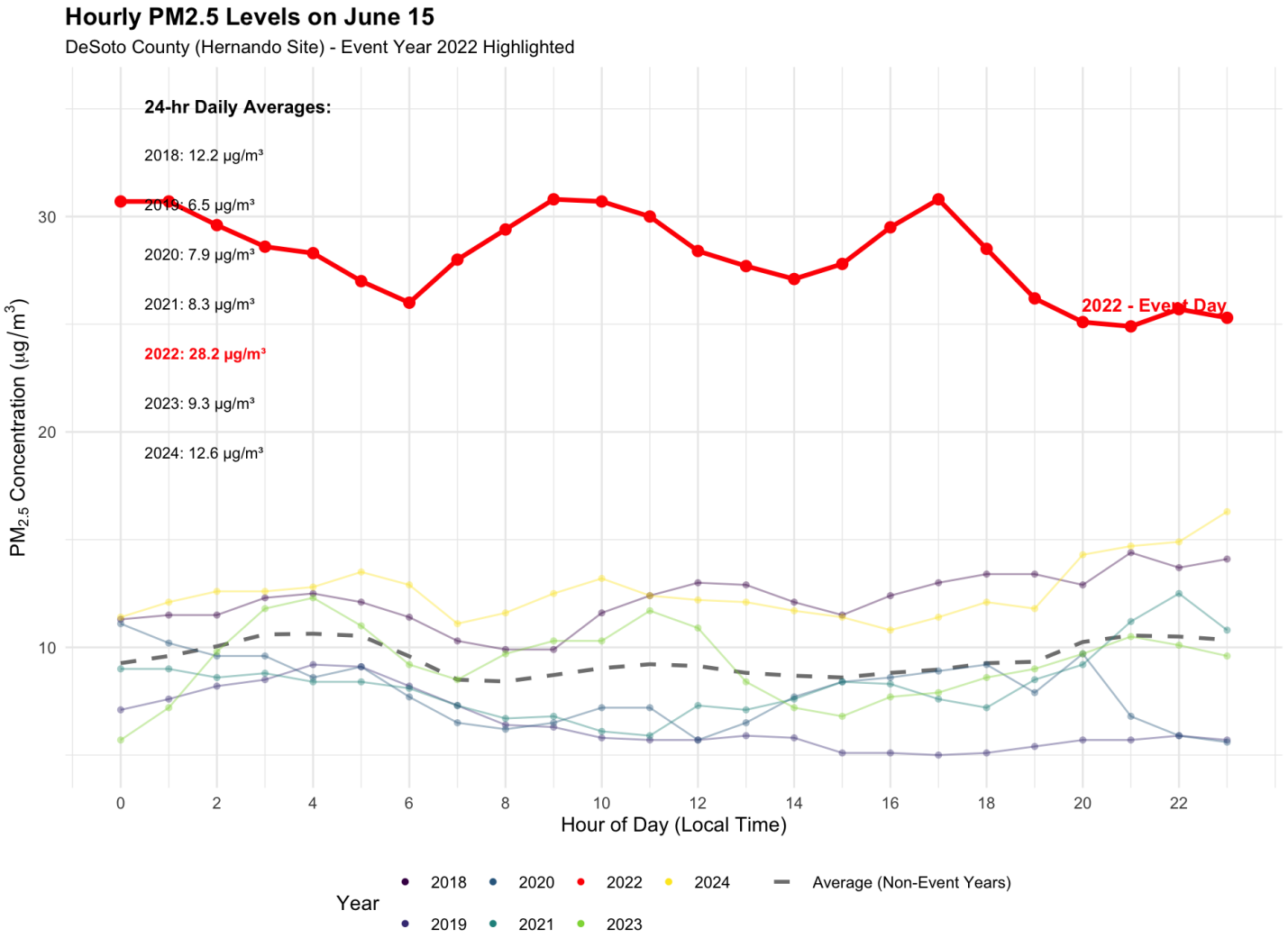
GOES-East GeoColor layer imagry taken at June 15th, 2022 at 2331UTC, showing continued heavy Saharan dust across the northern Gulf of Mexico and inland, across the Gulf States and Midsouth, increasing both PM10 and PM2.5 levels.



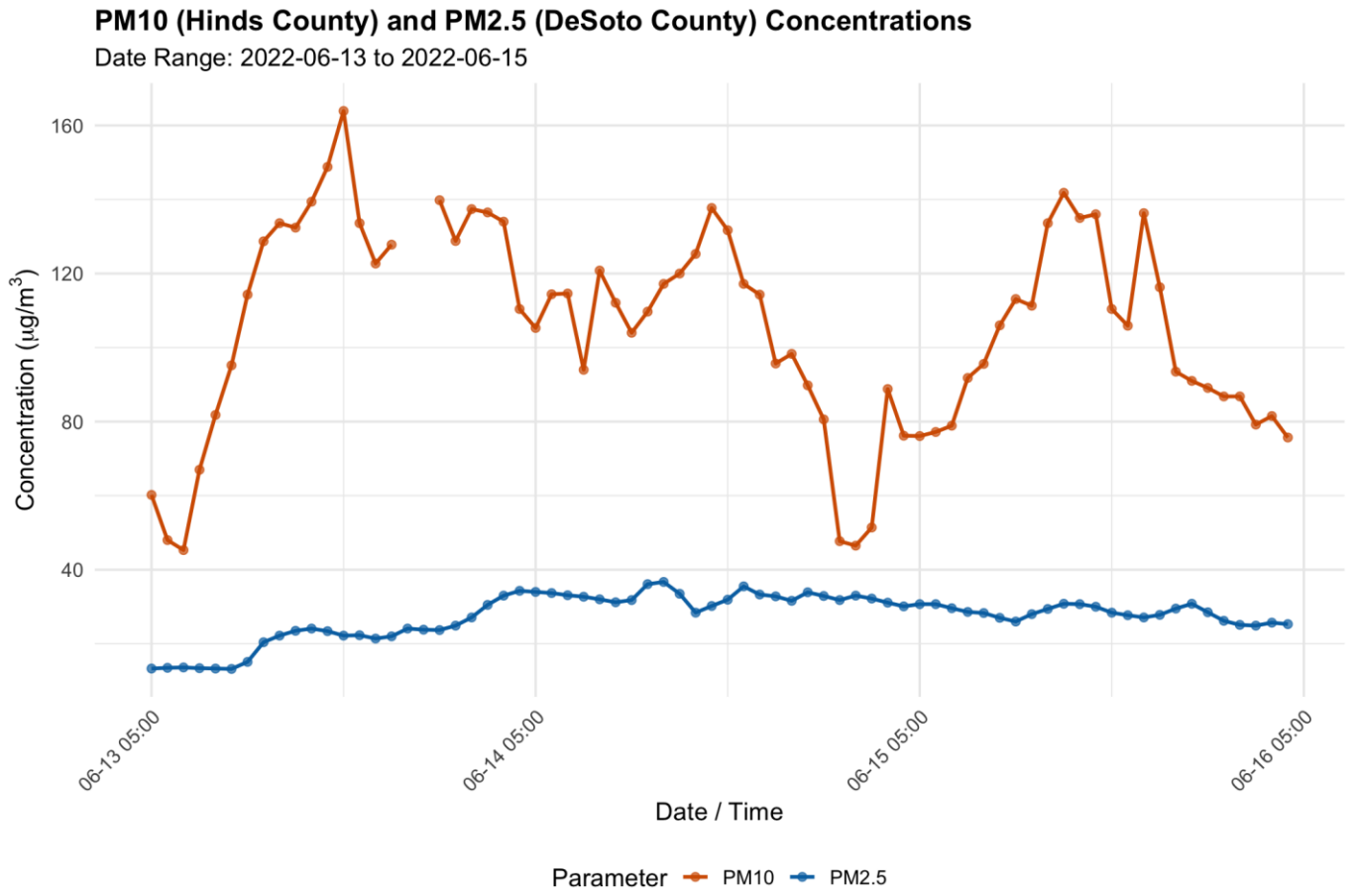
72-Hour back trajectories, showing 10m, 50m, and 1500m level parcels continuing to issue in Saharan dust from the Gulf of Mexico, onshore, across the Gulf States and Midsouth on June 15, 2022.

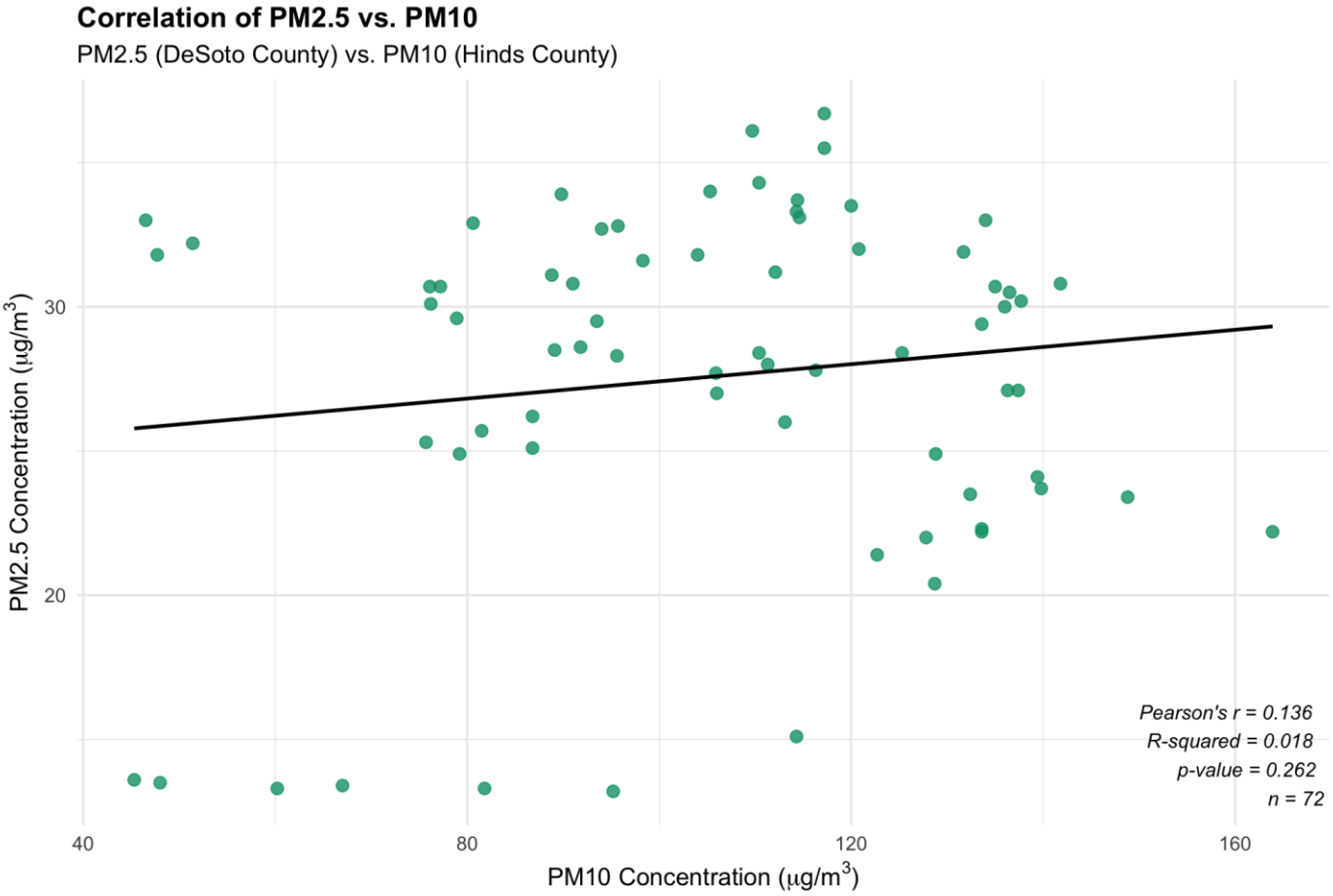
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/15/22	31.6	31.6	30.5	29.5	29.2	27.9	26.9	28.9	30.3	31.7	31.6	30.9	29.3	28.6	28	28.7	30.4	31.7	29.4	27.1	26	25.8	26.6	26.2	29.1	31.7

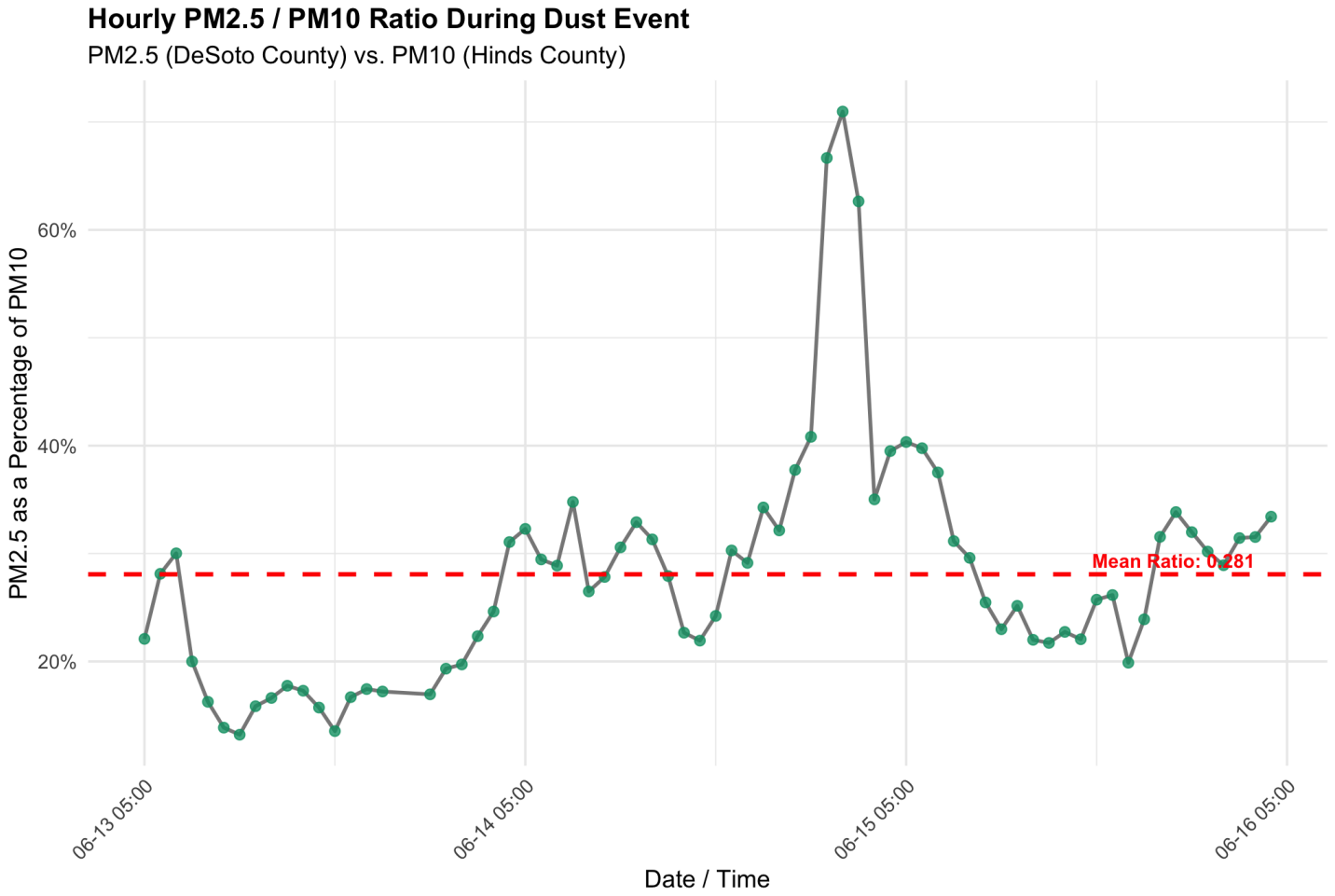
DeSoto monitor showing hourly PM2.5 averages during high Saharan dust event with a 24-hour daily average of 21.07 ug/m^3 on June 15, 2022



The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years for DeSoto County, 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.


PM10 (Hinds County) and PM2.5 (DeSoto County) Concentrations
Date Range: 2022-06-13 to 2022-06-15
160
120
80
40
Concentration (µg/m3)
06-13 05:00
06-14 05:00
06-15 05:00
06-16 05:00
Date / Time
Parameter
PM10
PM2.5


Correlation of PM2.5 vs. PM10
PM2.5 (DeSoto County) vs. PM10 (Hinds County)
30
20
PM2.5 Concentration (µg/m3)
40
80
120
160
PM10 Concentration (µg/m3)
Pearson's r = 0.136
R-squared = 0.018
p-value = 0.262
n = 72

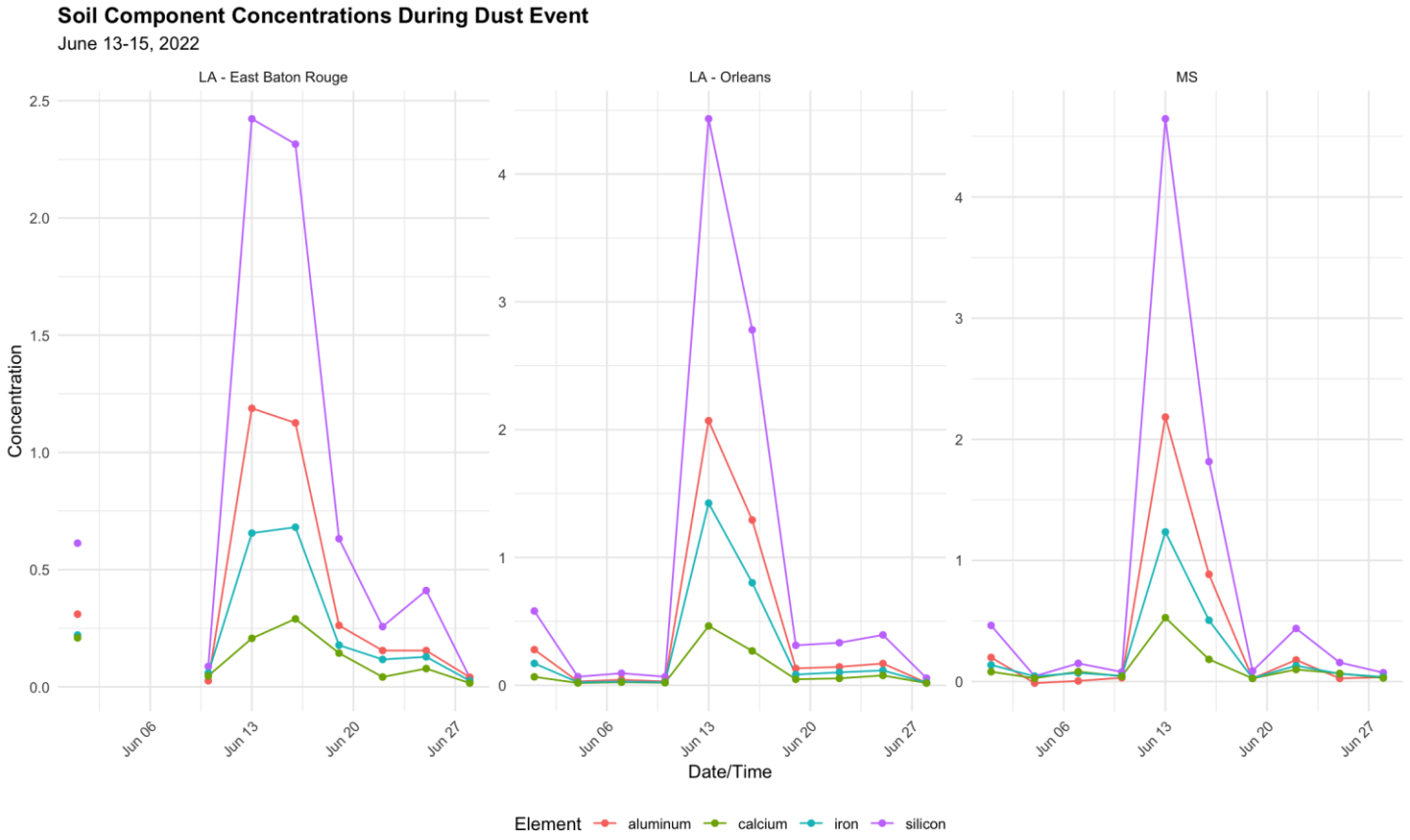


During the period of June 13-15, 2022, a significant Saharan dust event was observed across Mississippi. The primary evidence for this regional-scale event comes from the PM10 measurements at the Hinds County NCore site, which is equipped to capture larger particles characteristic of dust. Over the 3-day event, hourly PM10 concentrations reached a maximum of **163.9 µg/m^3** and maintained a high mean of **105.6 µg/m^3**. These values are exceptionally elevated and are clear indicators of a major dust incursion, consistent with foundational research where PM10 concentrations frequently exceed 100 µg/m^3 in affected regions (Prospero, 1999).

When comparing the hourly PM10 concentrations from the Hinds County site with the hourly PM2.5 concentrations from the DeSoto County site, the direct statistical correlation is weak and not statistically significant (Pearson's r = 0.136, R-squared = 0.018, p-value = 0.262). This lack of a strong hour-by-hour correlation is likely attributable to the significant geographical distance and resulting atmospheric dispersion between the two sites.

However, the evidence for a coincident impact from the same event remains strong when examining the PM2.5/PM10 ratio, which serves as a key diagnostic "fingerprint" for Saharan dust. The overall event-level ratio, calculated from the mean concentrations, was **0.26** (27.5 µg/m^3 / 105.6 µg/m^3). Furthermore, as shown in the time series plot of the hourly ratios, the average of these hourly values was **0.28**. Both of these values fit perfectly within the range identified by the scientific community for aged Saharan dust. A comprehensive review by **Querol et al. (2019)** established that for Saharan dust outbreaks, the PM2.5/PM10 ratio typically ranges from **0.1 to 0.3**. The fact that both the event-level and the average hourly ratios fall squarely within this range provides compelling evidence that the particulate matter impacting both sites originated from the same mineral dust source.

Therefore, while a direct hourly correlation is weak, the combination of exceptionally high regional PM10, a clear temporal alignment of the event, and a characteristic PM2.5/PM10 ratio builds a robust "weight of evidence" case. It is concluded that the elevated PM2.5 concentrations observed in DeSoto County are consistent with an impact from the same regional Saharan dust event that produced the high PM10 readings in Central Mississippi.

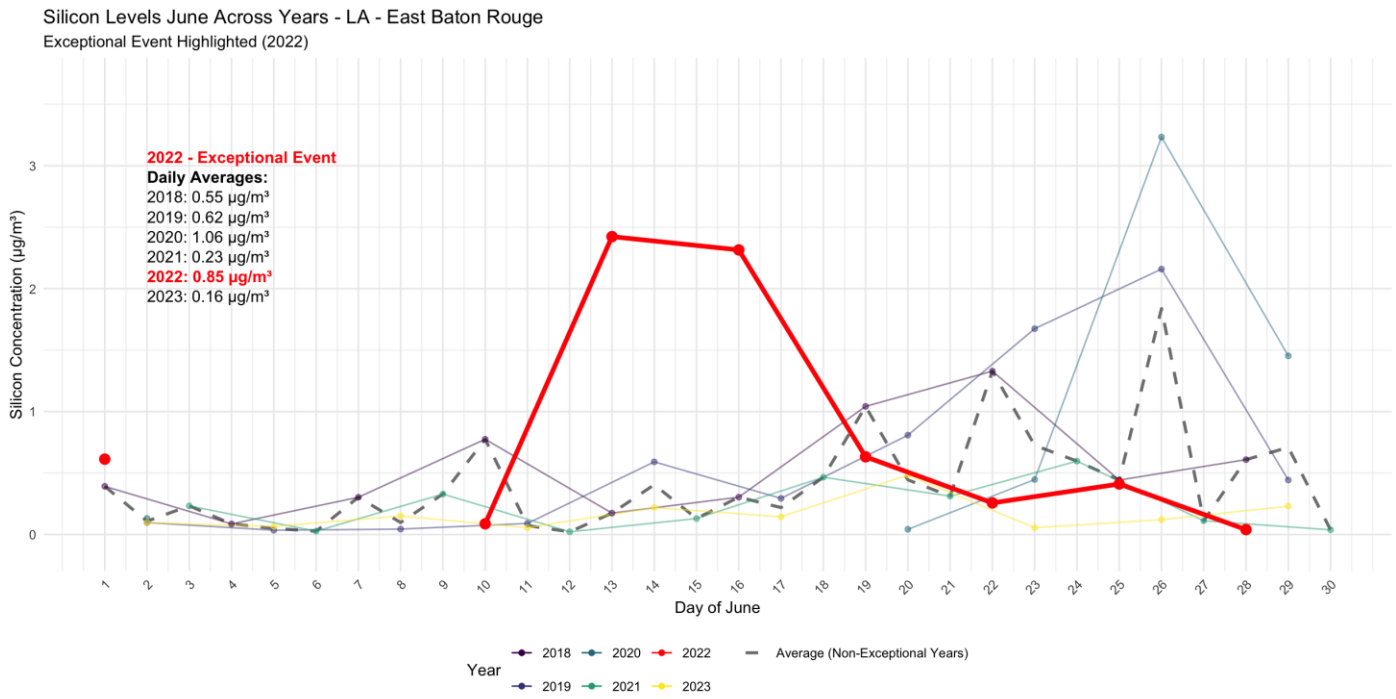


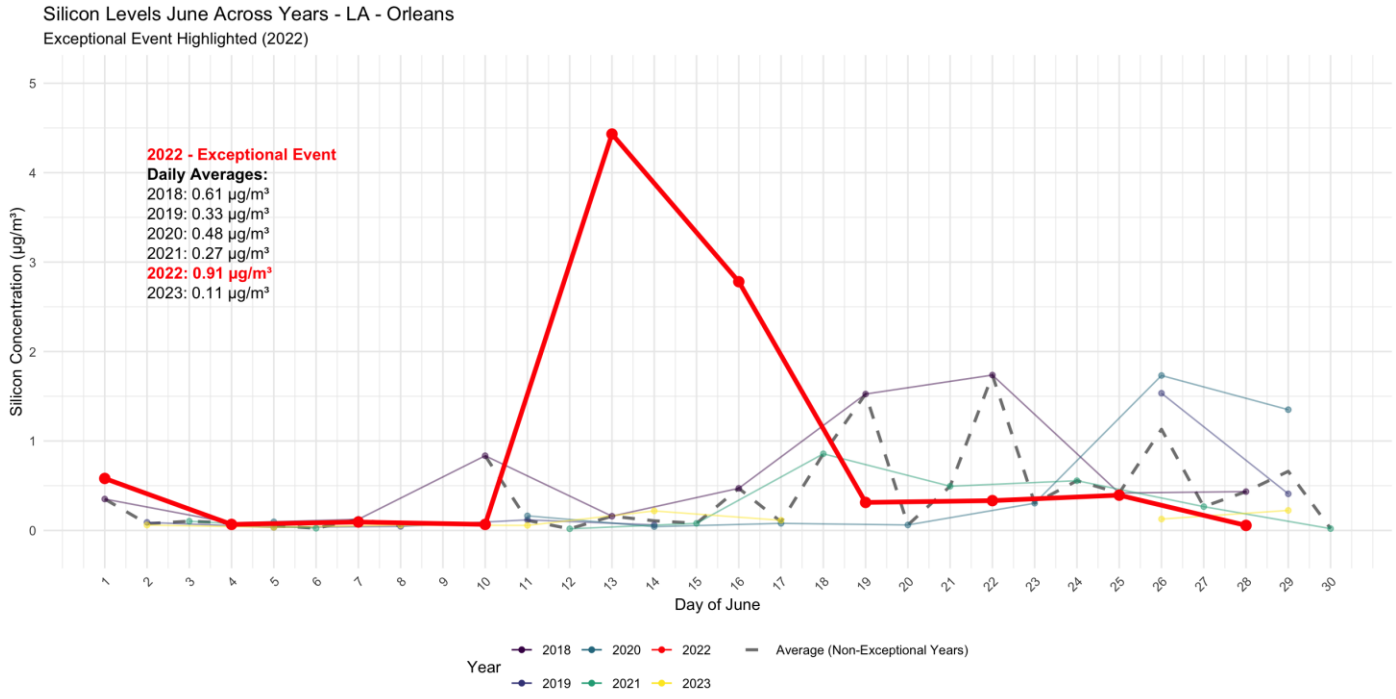
Silicon, aluminum, iron, and calcium are the most abundant soil components in African dust events (Goudie & et al, 2001) (Formenti & et al, 2011). The speciation data from June 2022 strongly supports the presence of these characteristic African dust components during June 13-15, 2022, across Louisiana 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.

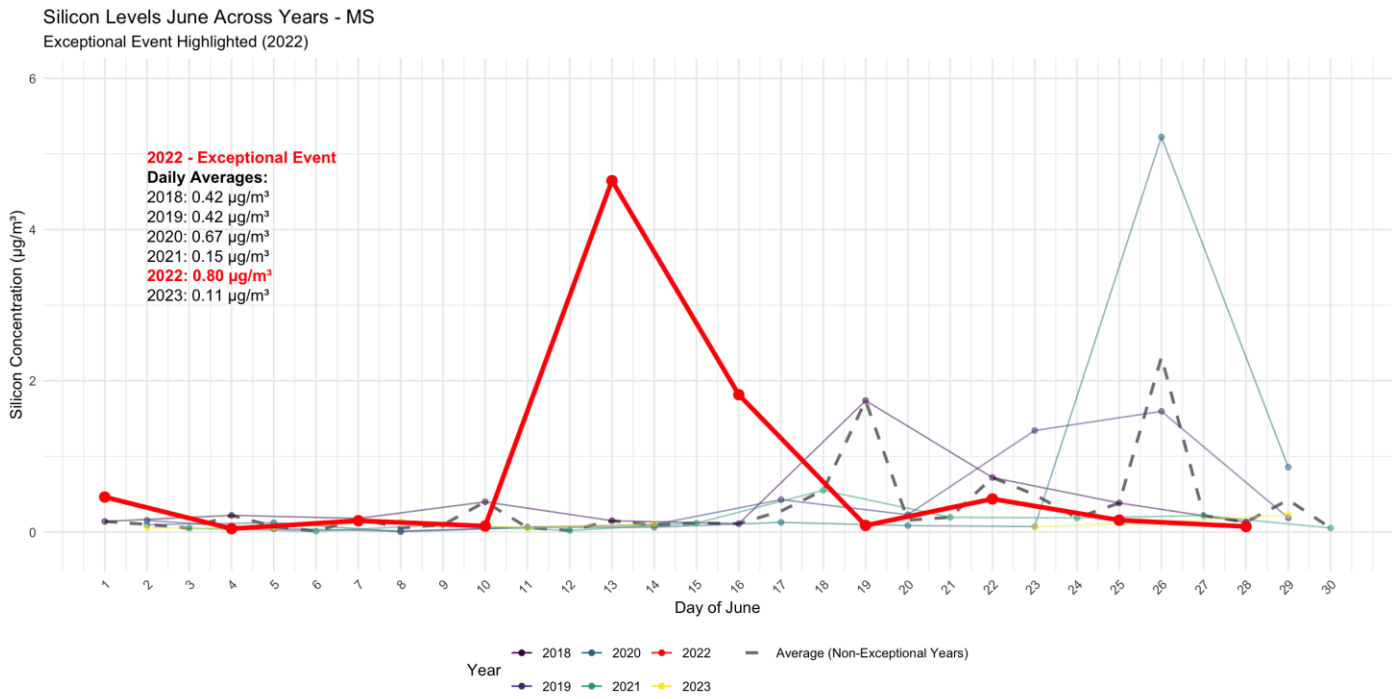
Specifically, silicon concentrations showed a dramatic increase from baseline levels to peak values around 2.4 $\mu g/m^3$ in East Baton Rouge, 4.0 $\mu g/m^3$ in Orleans, and 4.0 $\mu g/m^3$ at Mississippi's NCORE site during June 13th. This spike in silicon, along with corresponding increases in aluminum, 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.


Silicon Levels June Across Years - LA - East Baton Rouge
Exceptional Event Highlighted (2022)
2022 - Exceptional Event
Daily Averages:
2018: 0.55 µg/m³
2019: 0.62 µg/m³
2020: 1.06 µg/m³
2021: 0.23 µg/m³
2022: 0.85 µg/m³
2023: 0.16 µg/m³
Silicon Concentration (µg/m³)
Day of June
Year
2018
2019
2020
2021
2022
2023
Average (Non-Exceptional Years)


Silicon Levels June Across Years - LA - Orleans
Exceptional Event Highlighted (2022)
2022 - Exceptional Event
Daily Averages:
2018: 0.61 µg/m³
2019: 0.33 µg/m³
2020: 0.48 µg/m³
2021: 0.27 µg/m³
2022: 0.91 µg/m³
2023: 0.11 µg/m³
Silicon Concentration (µg/m³)
Day of June
Year
2018
2019
2020
2021
2022
2023
Average (Non-Exceptional Years)



Based on the time series plots from the three monitoring locations (East Baton Rouge, Orleans, and Mississippi), there is clear evidence of significantly elevated silicon concentrations during June 13-15, 2022, compared to the same period in other years (2018-2023). This elevation is particularly pronounced with peak silicon levels reaching:

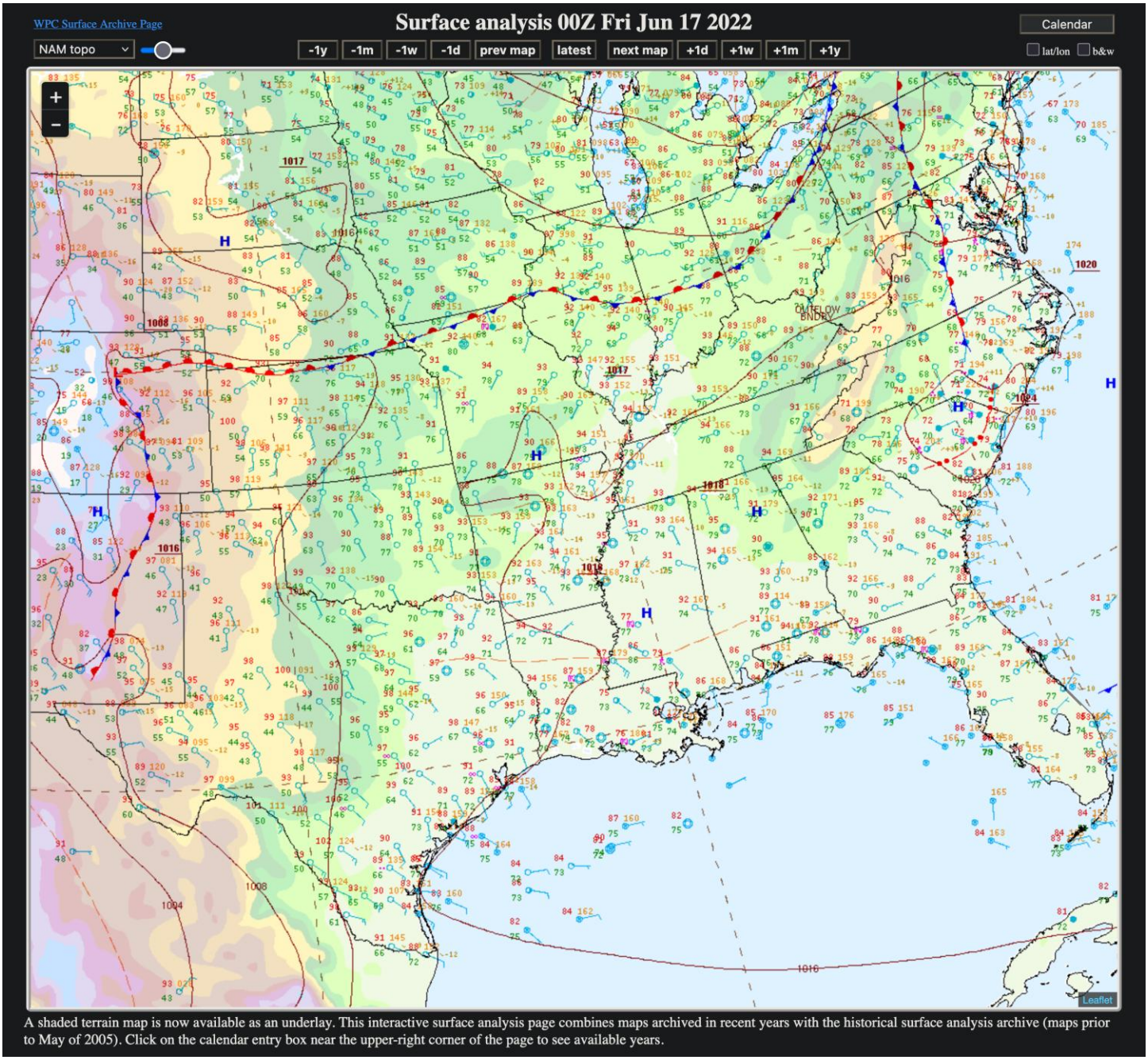
- Approximately 2.5 µg/m^3 in East Baton Rouge
- Over 4.5 µg/m^3 in Orleans
- About 4.8 µg/m^3 in Mississippi

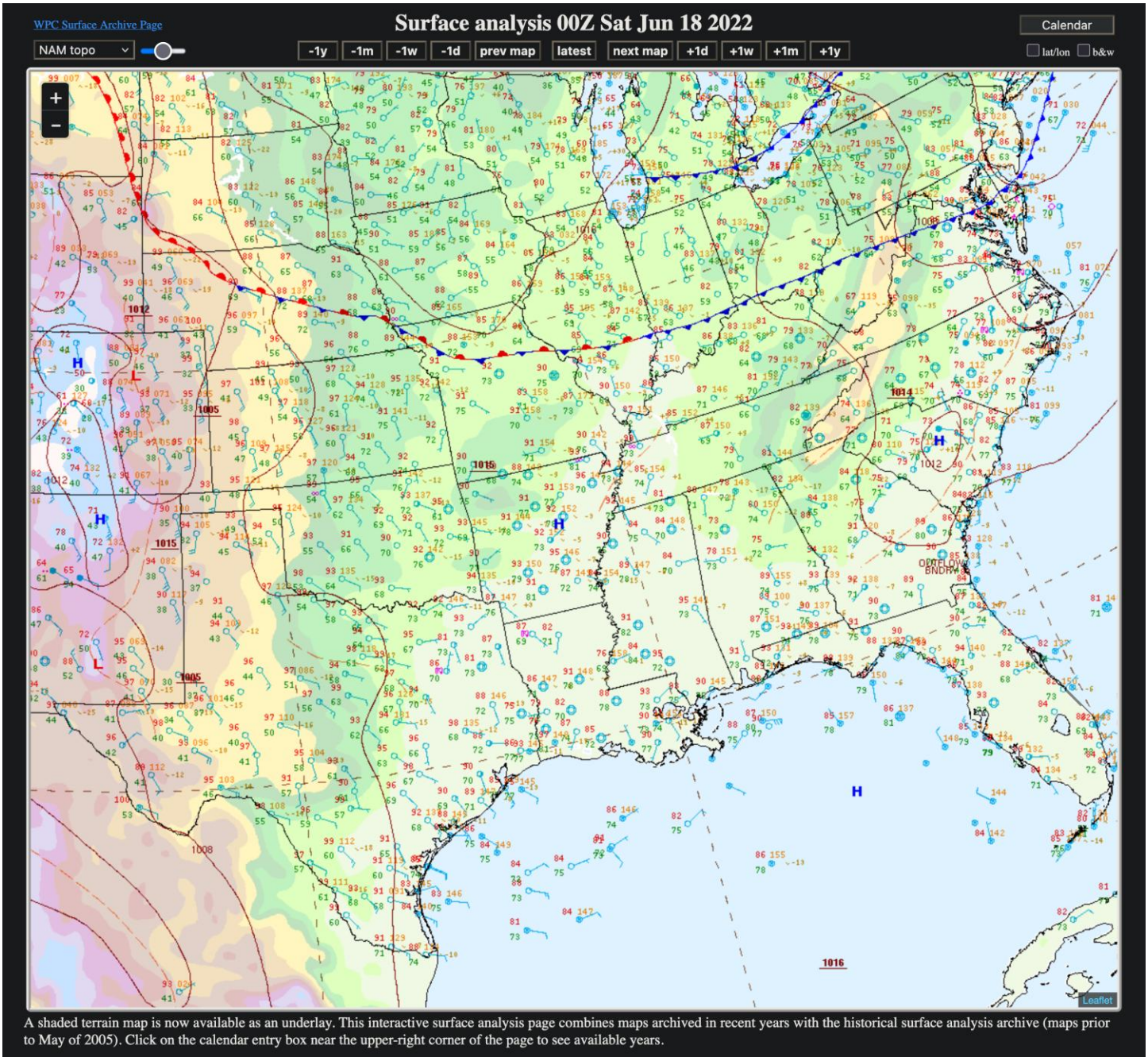
These peak concentrations during the event were roughly 4-8 times higher than the typical baseline concentrations observed in other years (which generally remained below 1.0 µg/m^3). The simultaneous spike in silicon levels across all three sites, coupled with the magnitude of the increase, strongly supports the presence of Saharan dust in the region. Silicon is a key elemental marker for mineral dust, and its dramatic elevation during this period aligns with the transport of Saharan dust across the Gulf of Mexico into the southeastern United States. The temporal pattern shows a sharp increase beginning on June 13, reaching peak concentrations on June 13-14, followed by a gradual decline through June 15, consistent with the passage of a Saharan dust plume through the area.

The daily average silicon concentrations during 2022 (0.85 µg/m^3 in East Baton Rouge, 0.91 µg/m^3 in Orleans, and 0.80 µg/m^3 in MS) were substantially higher than those observed in other years, which typically ranged from 0.15 to 0.67 µg/m^3. This regional consistency in timing and magnitude provides strong evidence that the elevated silicon levels were due to the long-range transport of Saharan dust rather than local sources.

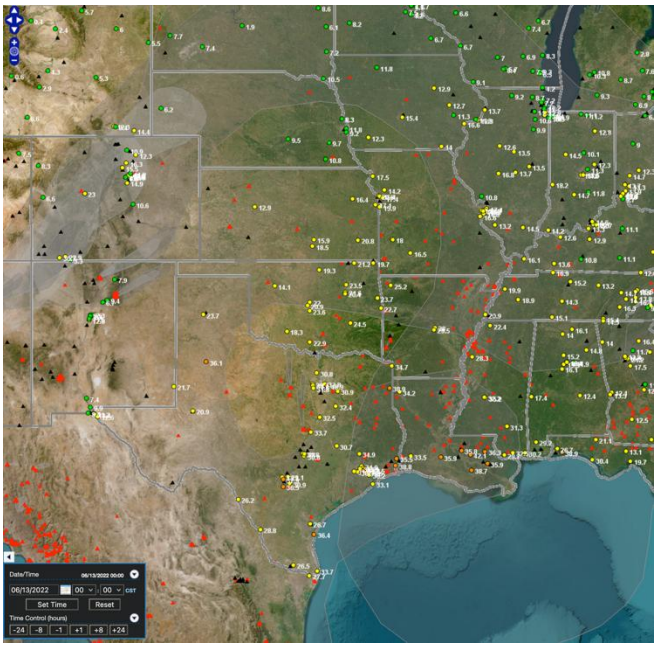
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 16-17, 2022	Wildfire	RT	28-033-0002	Hernando	26.3 & 21.3	1&2	Wildfire C Exceptional Event: June 16-17, 2022

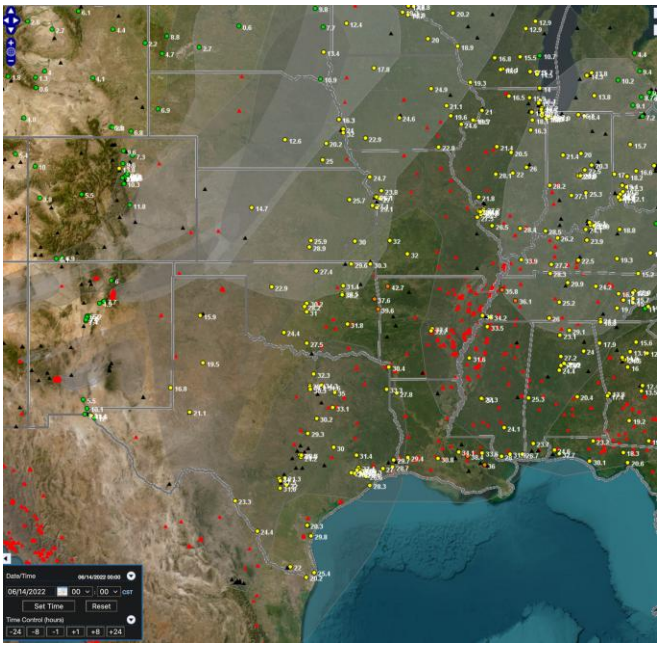
Synopsis: During the period of June 16-17, 2022, persistent High-Pressure dominated the southeastern United States, resulting in widespread stagnant atmospheric conditions over the Memphis Metropolitan Statistical Area (MSA), including DeSoto County. While the influence of Saharan dust, which had affected the region in preceding days, diminished, a significant influx of smoke from wildfires across western North America began to impact the Midsouth. This transported wildfire smoke was the primary contributor to the elevated PM2.5 concentrations observed in DeSoto County during this timeframe.

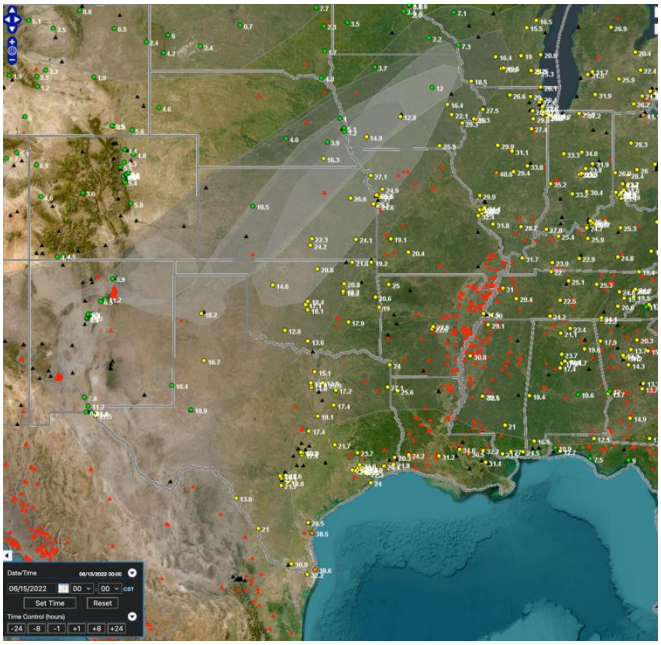


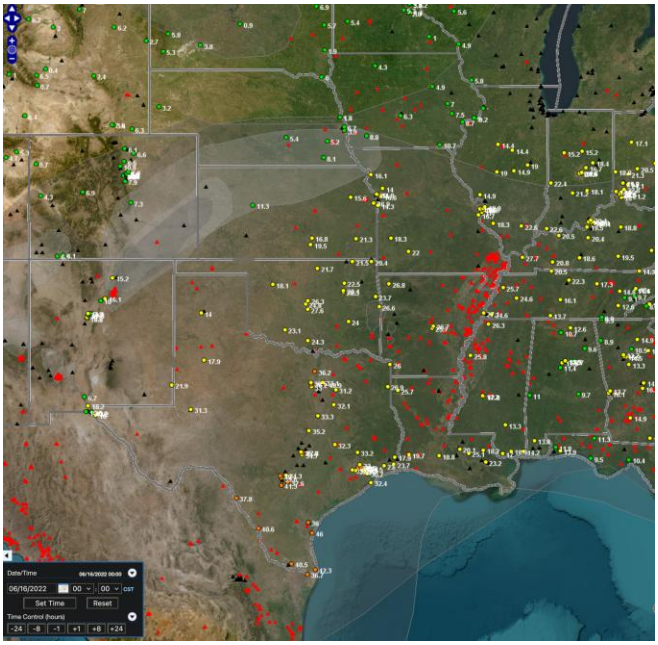


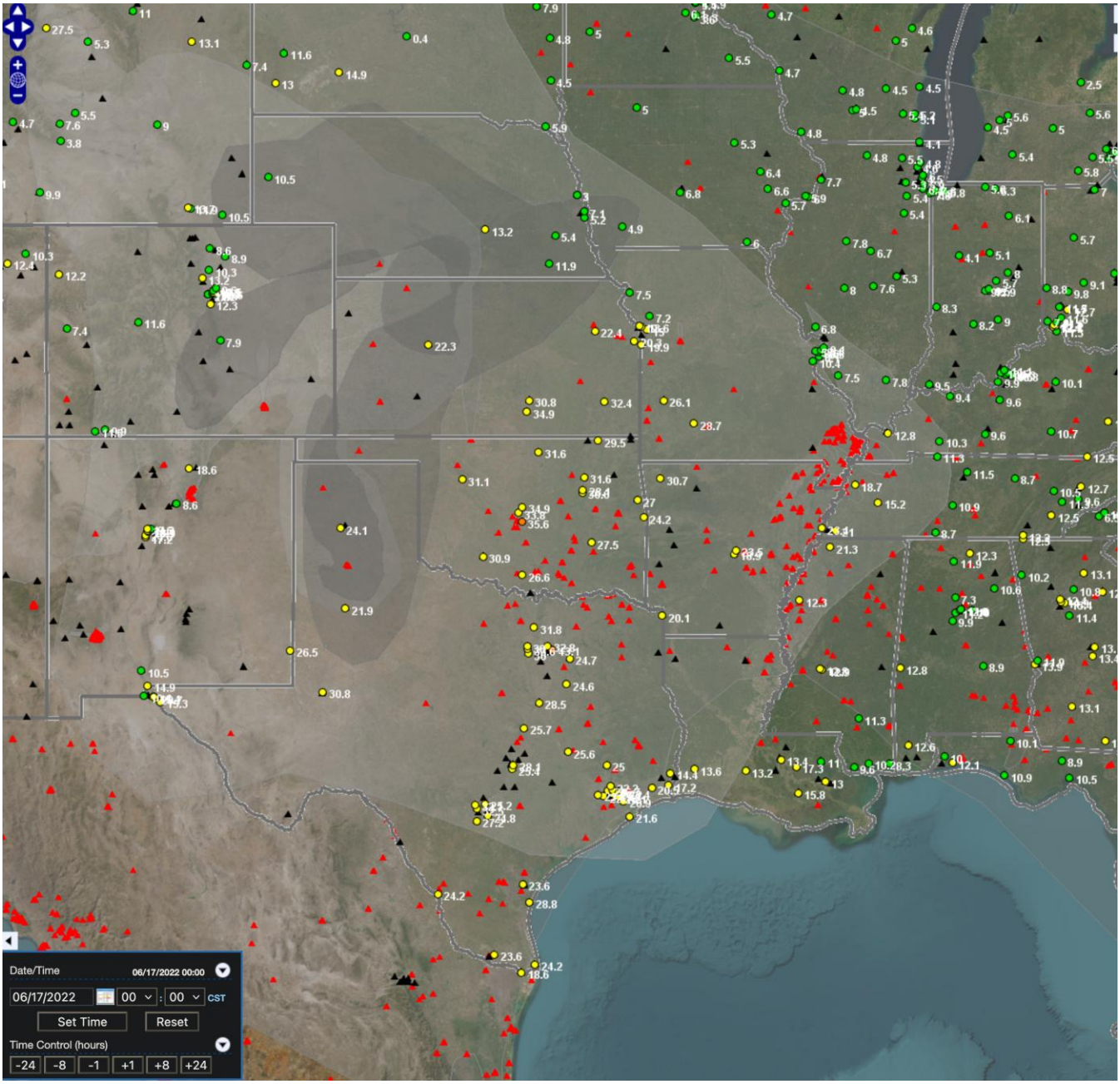
Surface map taken 00UTC Friday, June 17th (Thursday, June 16th, 7PM CDT) and 00UTC Saturday, June 18th (Friday, June 17th, 7PM CDT) showing expansive High-Pressure over the entire southeastern United States helping to lead to stagnant conditions


Date/Time
06/13/2022
Set Time
Reset
Time Control (hours)

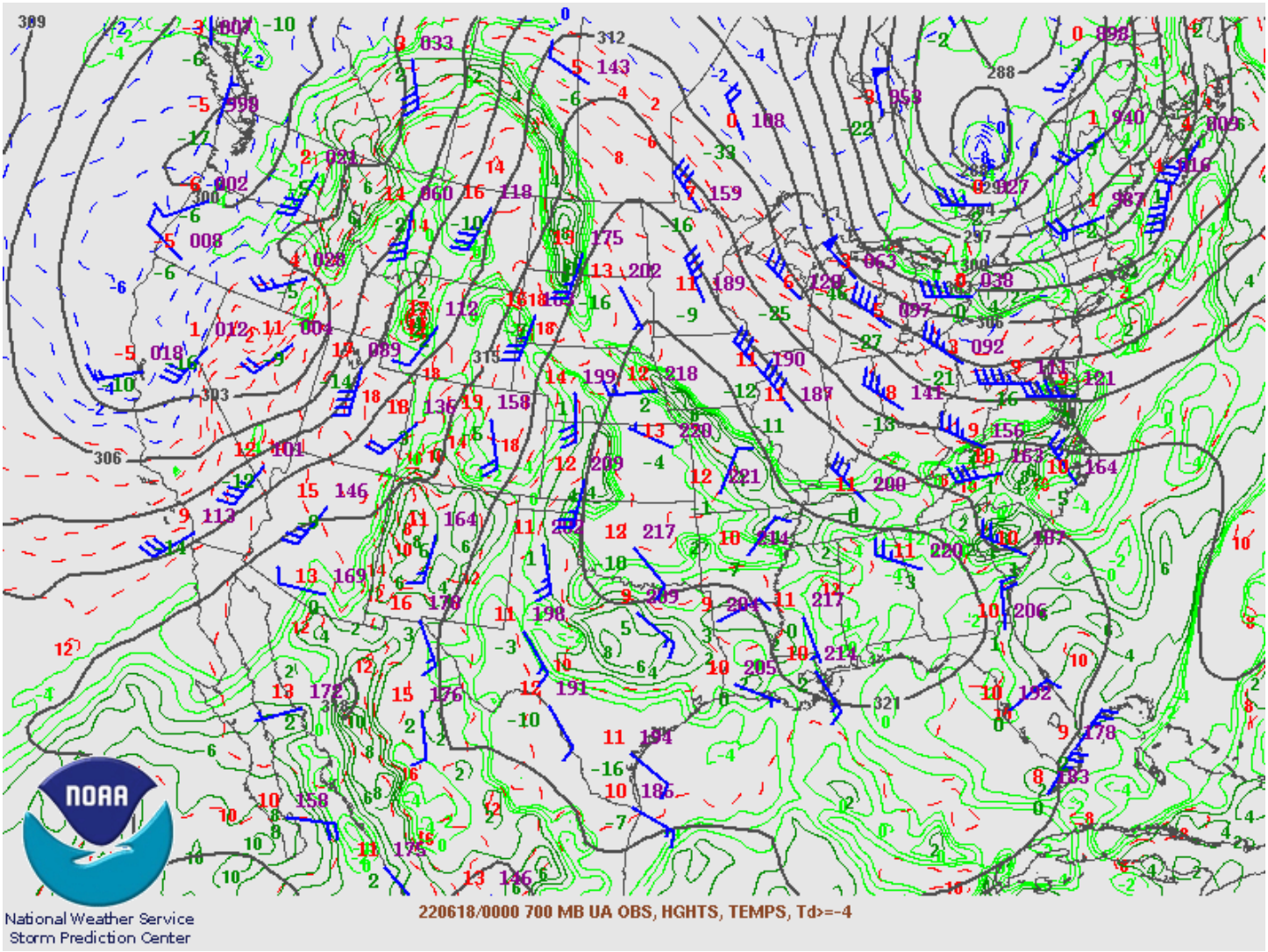

Date/Time
06/14/2022
Set Time
Reset
Time Control (hours)

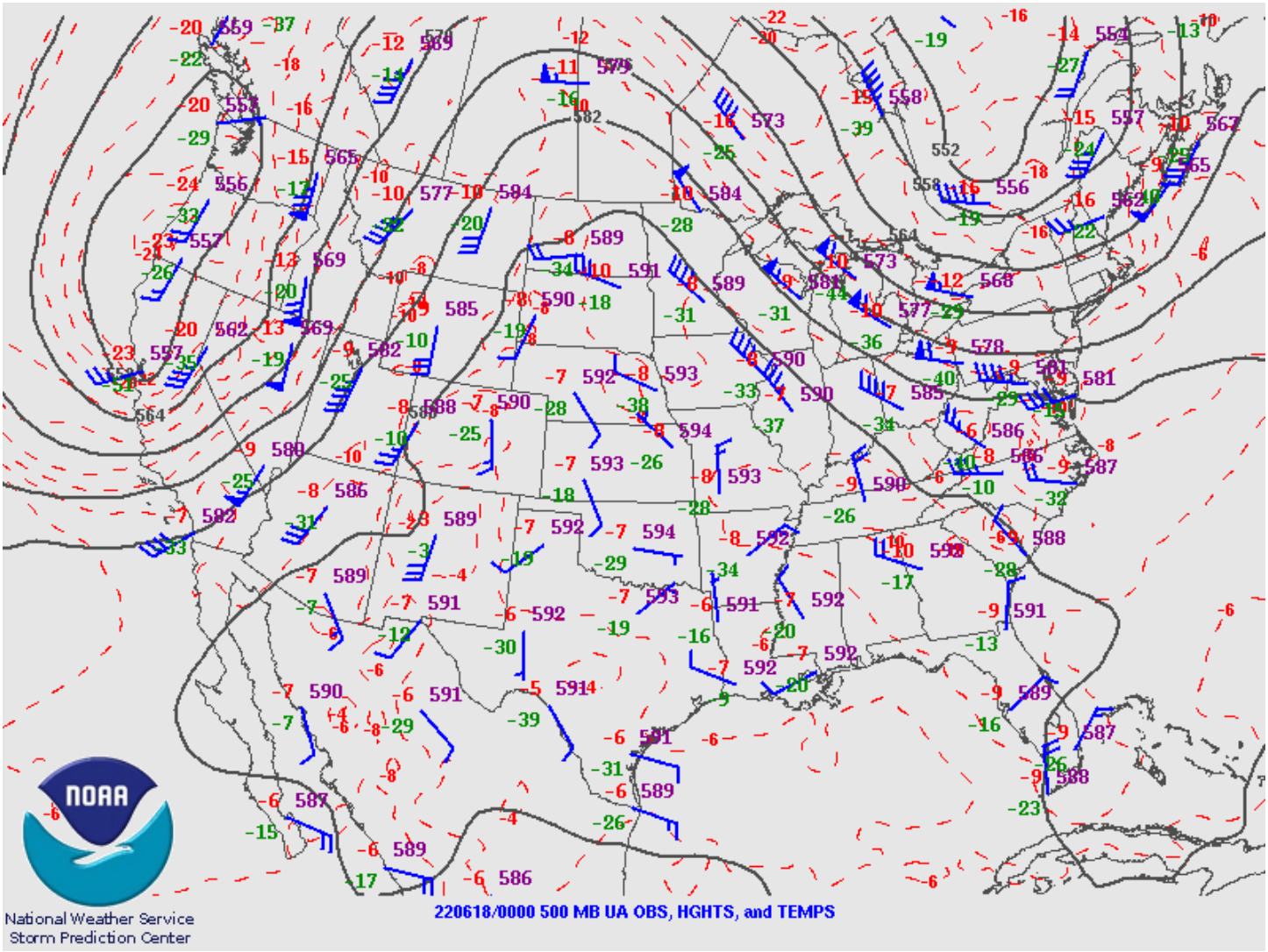

Date/Time
06/15/2022
Set Time
Reset
Time Control (hours)


Date/Time
06/16/2022
Set Time
Reset
Time Control (hours)

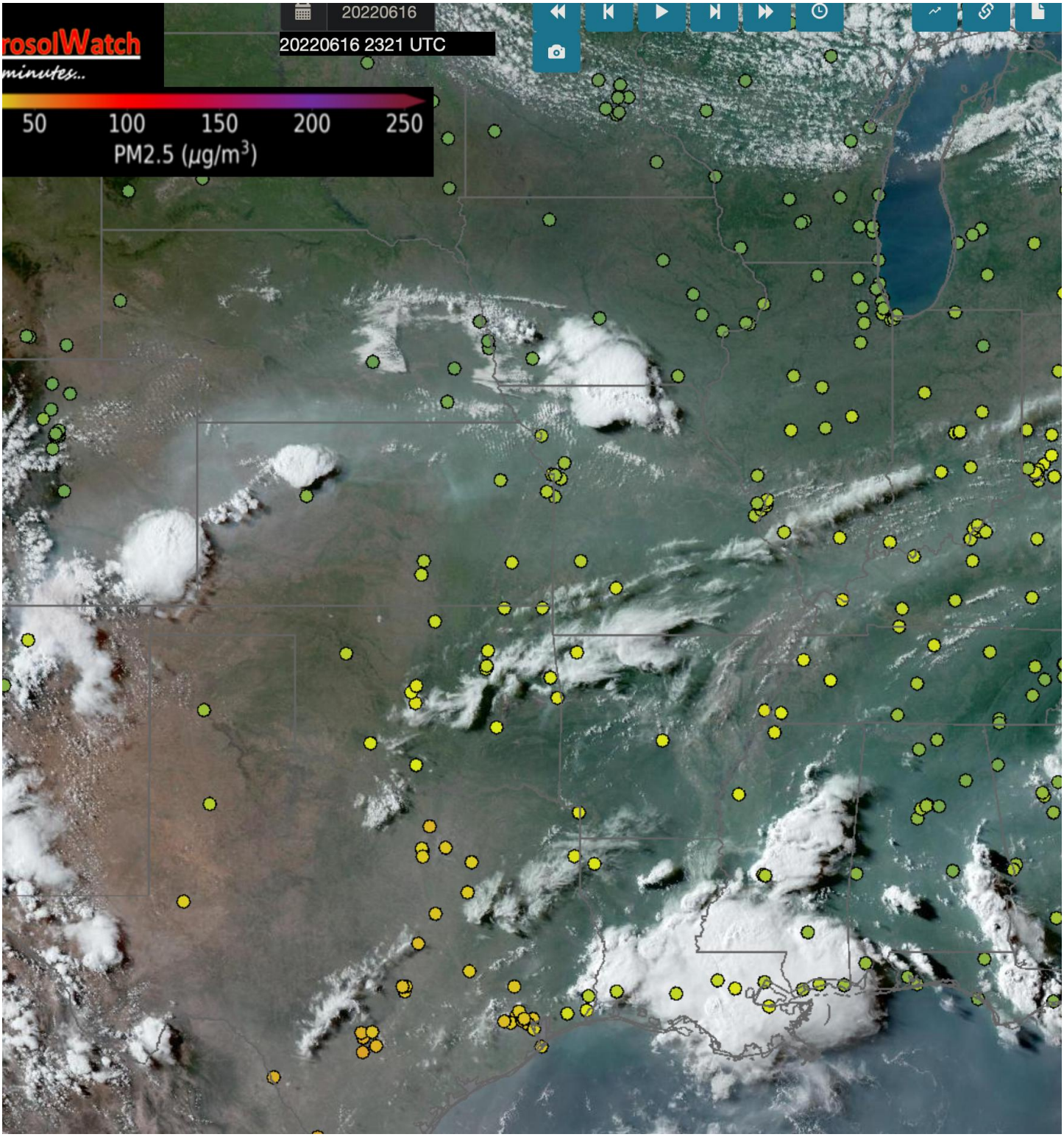


Analysis of AirNow-Tech Navigator imagery from June 13th through June 17th, 2022, reveals the transport pathway of wildfire smoke impacting DeSoto County. These images show significant smoke production from numerous wildfires located in western and southwestern United States. Prevailing upper-level atmospheric flow patterns facilitated the eastward and southeastward transport of these dense smoke plumes across the central United States. By June 16th and continuing through June 17th, these plumes had clearly advected into the Midsouth region, including DeSoto County. The arrival and persistence of this wildfire smoke aloft, combined with the previously described stagnant surface conditions, directly contributed to the measured increases in PM2.5 concentrations.

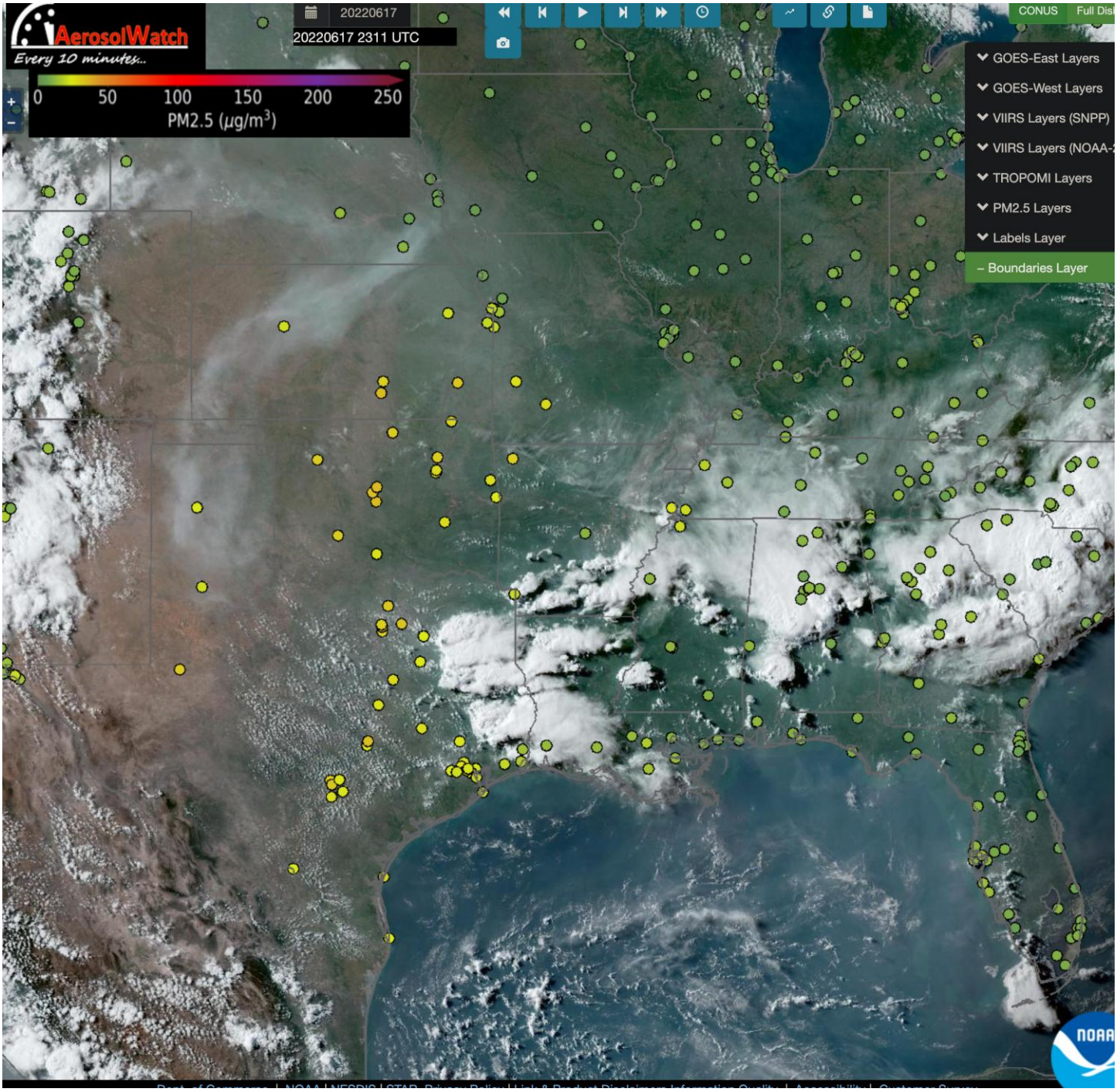

National Weather Service
Storm Prediction Center
220618/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4



The 700mb and 500mb upper-air charts for 00Z on Saturday, June 18th (7 PM CDT, Friday, June 17th) depict the upper-level atmospheric steering currents responsible for transporting smoke into the Midsouth. These analyses indicate that smoke, originating from wildfires primarily in the southwestern United States, was advected eastward within the prevailing mid-tropospheric flow. This trajectory initially guided the smoke plume over the northern periphery of a prominent Upper-Level Ridge situated over the Midwest. Subsequently, a subtle weakness in the ridge structure along its eastern flank, particularly evident near the Ohio River Valley, allowed for a southward deflection of the flow. This pattern facilitated the advection of the smoke plume southward into the Midsouth region, including DeSoto County.



GOES True color imagery at 2321UTC (18:21CDT) on June 16th, showing smoke layer from originating from out west, moving into the Midwest and feeding into the Midsouth and Southeast, elevating PM2.5 values well into the moderate category.

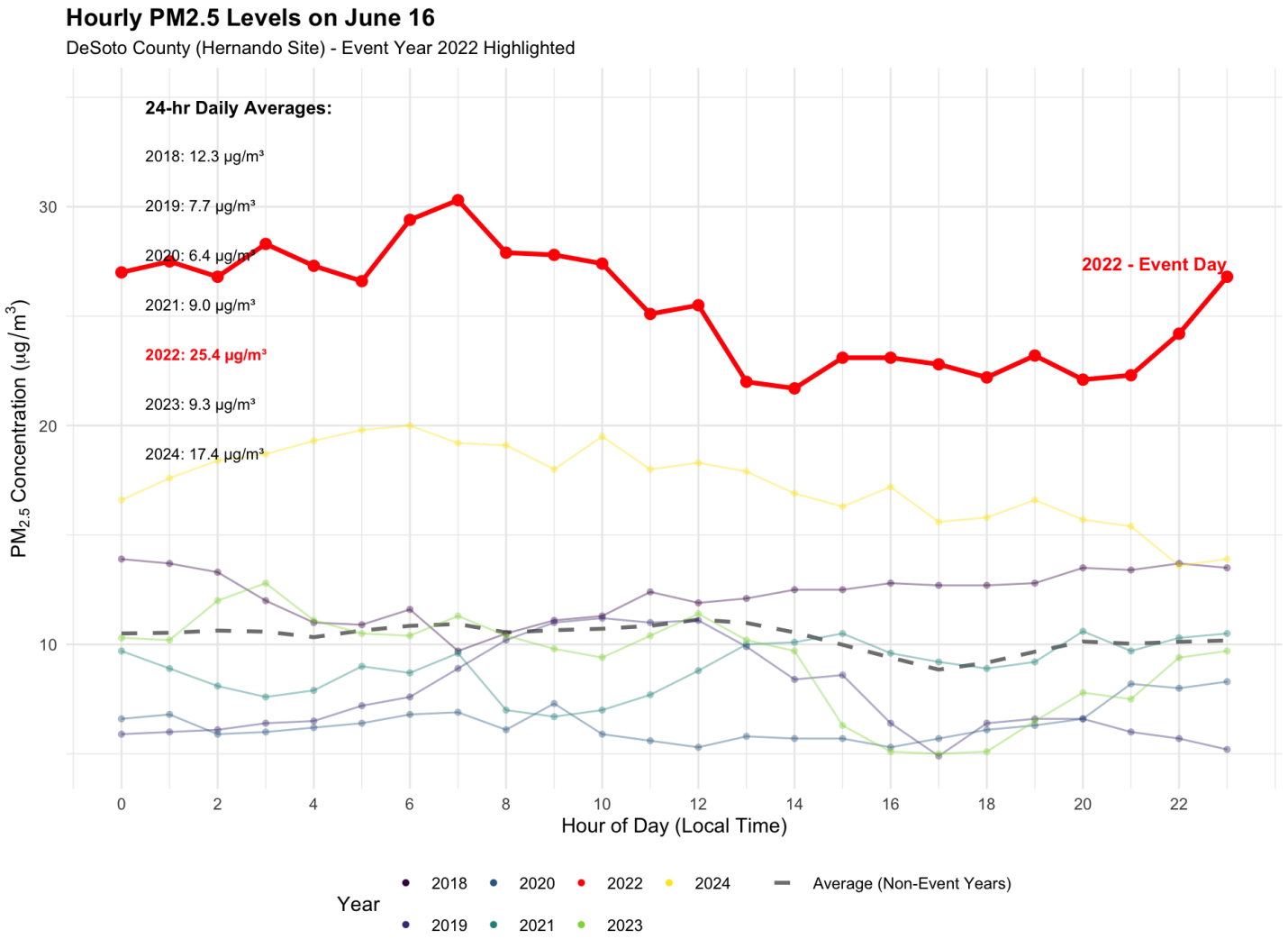


GOES True color imagery at 2311UTC (18:11CDT) on June 17th, showing smoke layer from originating from out west, continuing to move into the Midwest and into the Midsouth and southeast, elevating PM2.5 values into the moderate category.

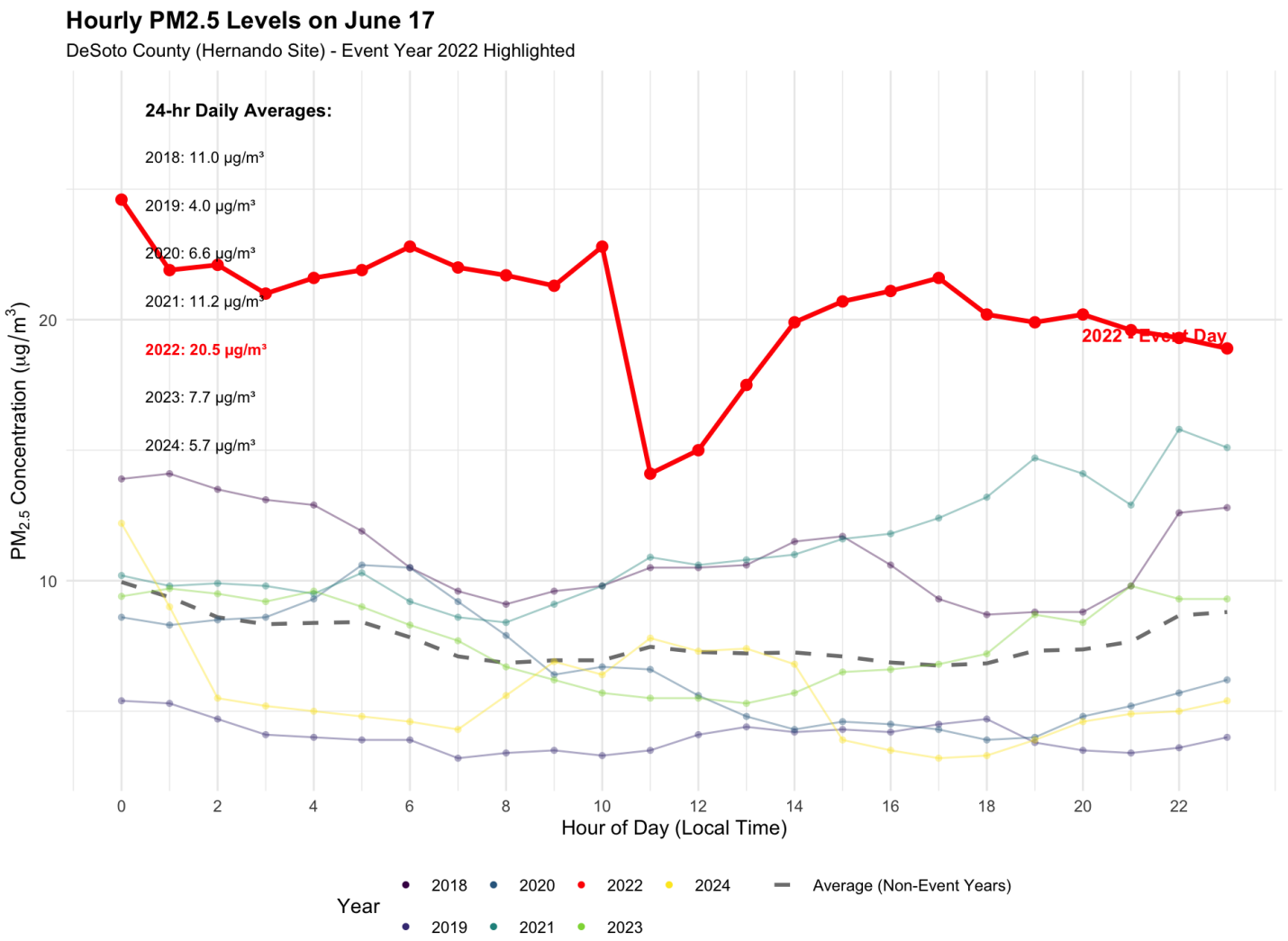
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/16/22	27.9	28.4	27.7	29.2	28.2	27.5	30.3	31.2	28.8	28.7	28.3	26	26.4	22.9	22.6	24	24	23.7	23.1	24.1	23	23.2	25.1	27.7	26.33	31.2
HERNANDO/280330002/PM2.5-88101/3	06/17/22	25.5	22.8	23	21.9	22.5	22.8	23.7	22.9	22.6	22.2	23.7	15	15.9	18.4	20.8	21.6	22	22.5	21.1	20.8	21.1	20.5	20.2	19.8	21.39	25.5

Hourly values from AirNowTech showed PM2.5 concentrations in the twenties and thirties throughout the day on the 16th as wildfire smoke impacted the monitor, resulting in a PM2.5 daily average of 26.33 µg/m^3. PM2.5 values

on the 17th remained elevated throughout the day thanks to persistent smoke in the area thanks to very stagnant surface conditions allowing little ventilation of pollutants, resulting in a PM2.5 24-hour average of 21.39ug/m^3.



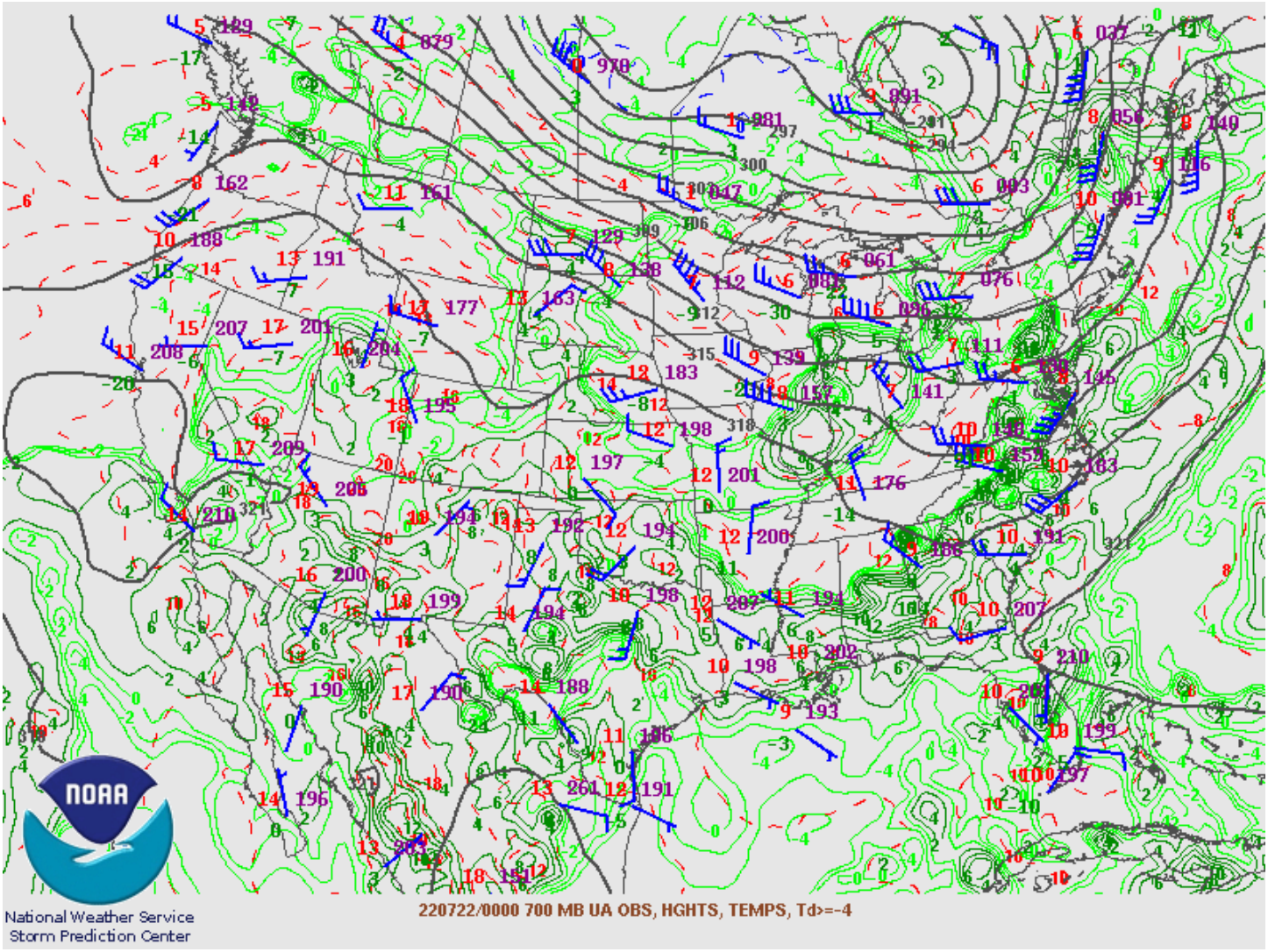
The hourly time series cross-section in the figure above on June 16th illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to wildfire smoke impacting the DeSoto county monitor.

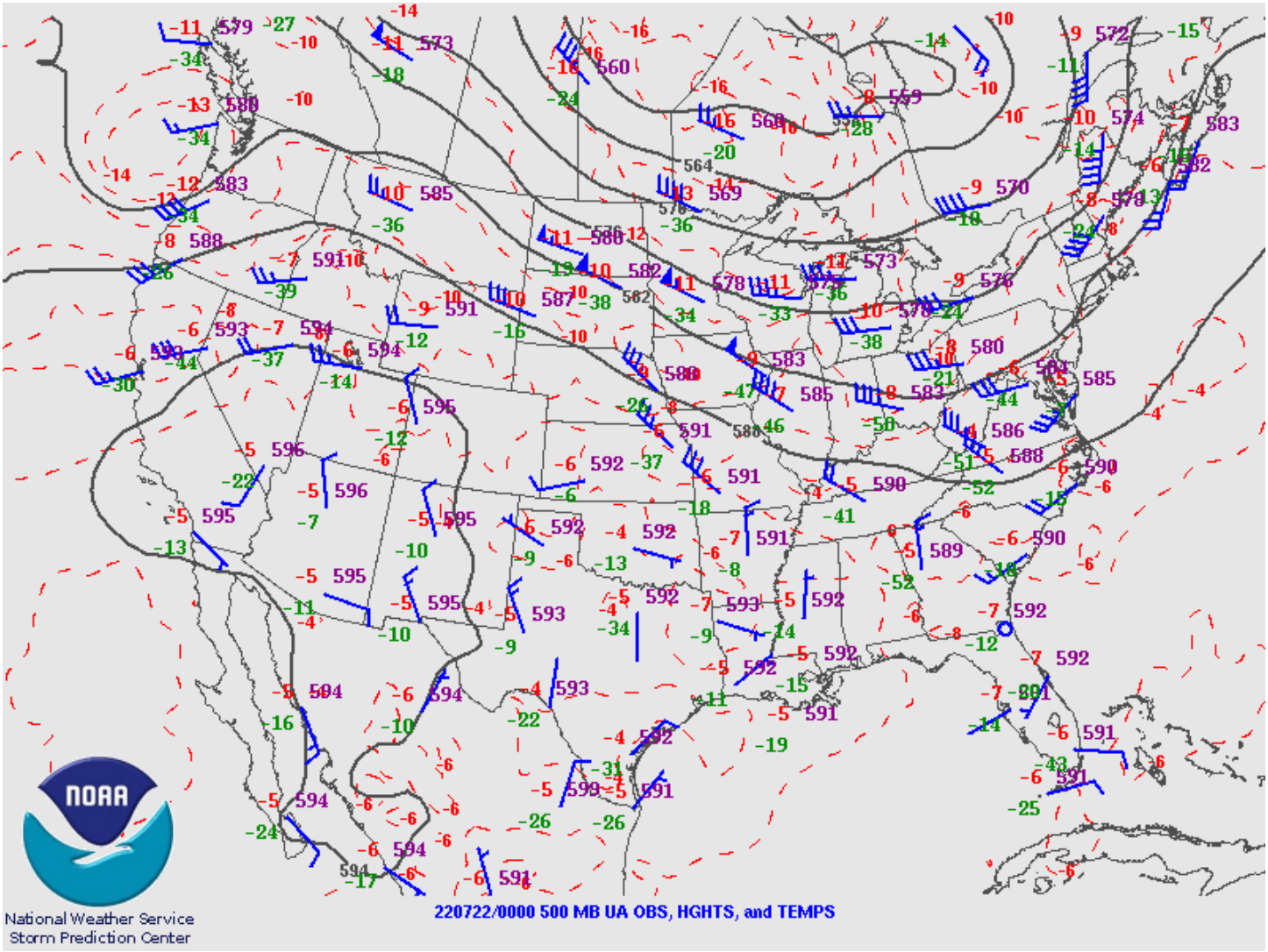


The hourly time series cross-section in the figure above on June 17th illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to wildfire smoke impacting the DeSoto county monitor.

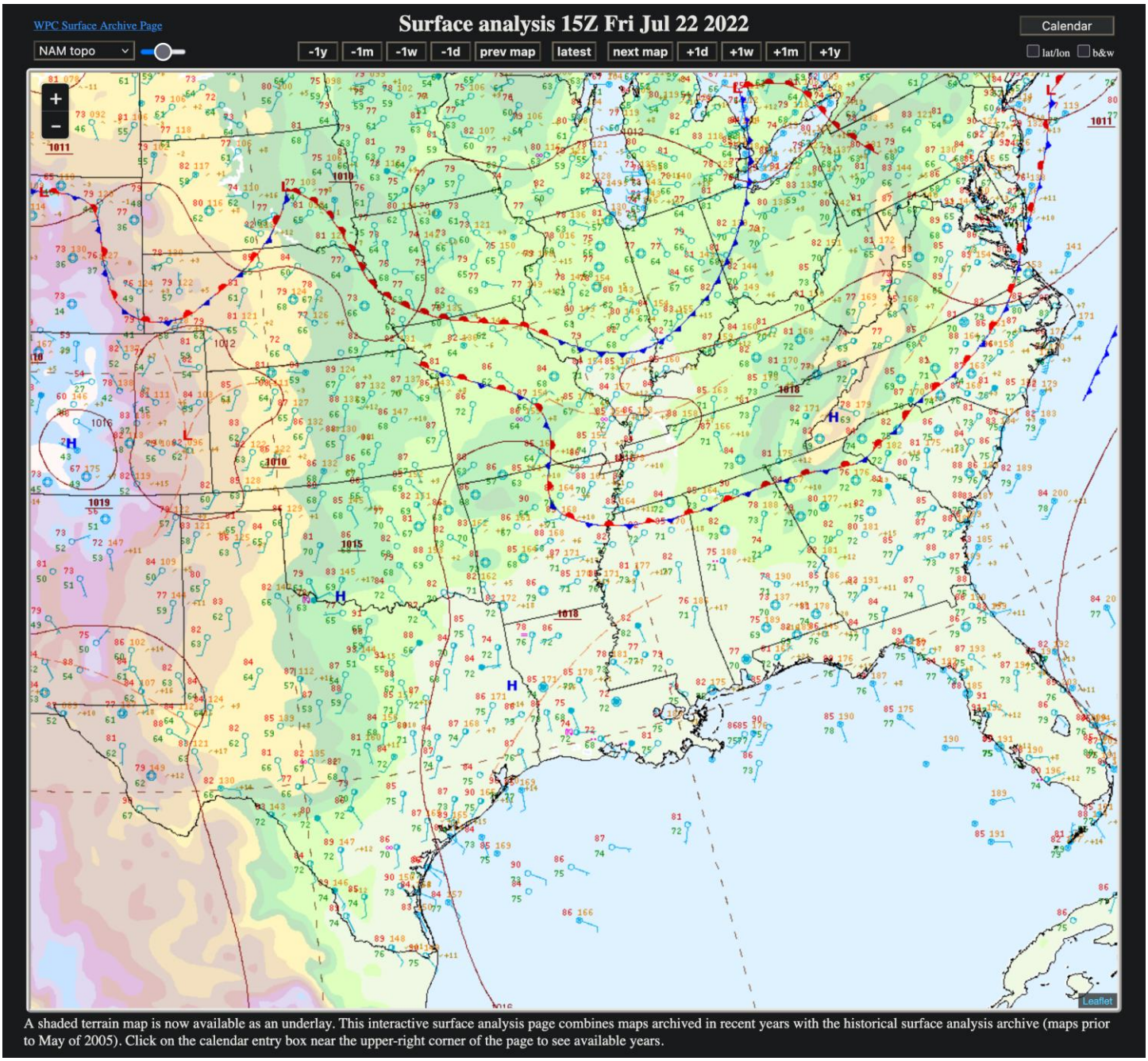
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
July 22, 2022	Canadian Wildfire	RF	28-033-0002	Hernando	18.2	2	Canadian Wildfire C Exceptional Event Demonstration: July 22, 2022

Synopsis: Mid to late July of 2022, Canadian wildfires have been ongoing as persistent northwesterly upper-level flow has allowed the smoke from the Canadian wildfires to filter down into the midwestern portions of the United States. At the surface, High-Pressure centered over lower Mississippi River Valley has been dominating the area, leading to stagnant conditions. The smoke filtering into the Midsouth combined with stagnant surface conditions, allowed for PM2.5 values to be elevated starting in the afternoon on the 21st going into July 22nd, 2022.

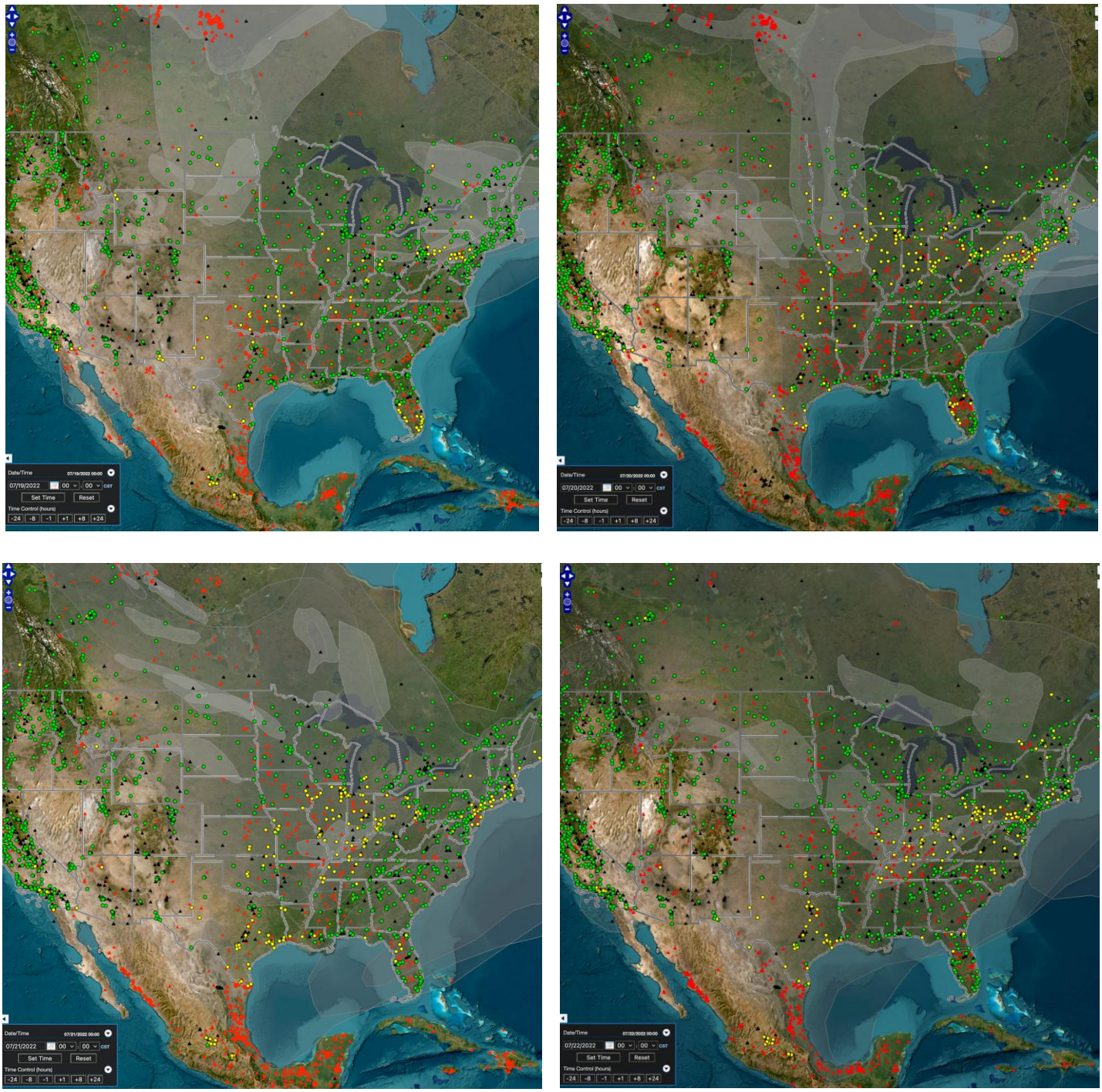




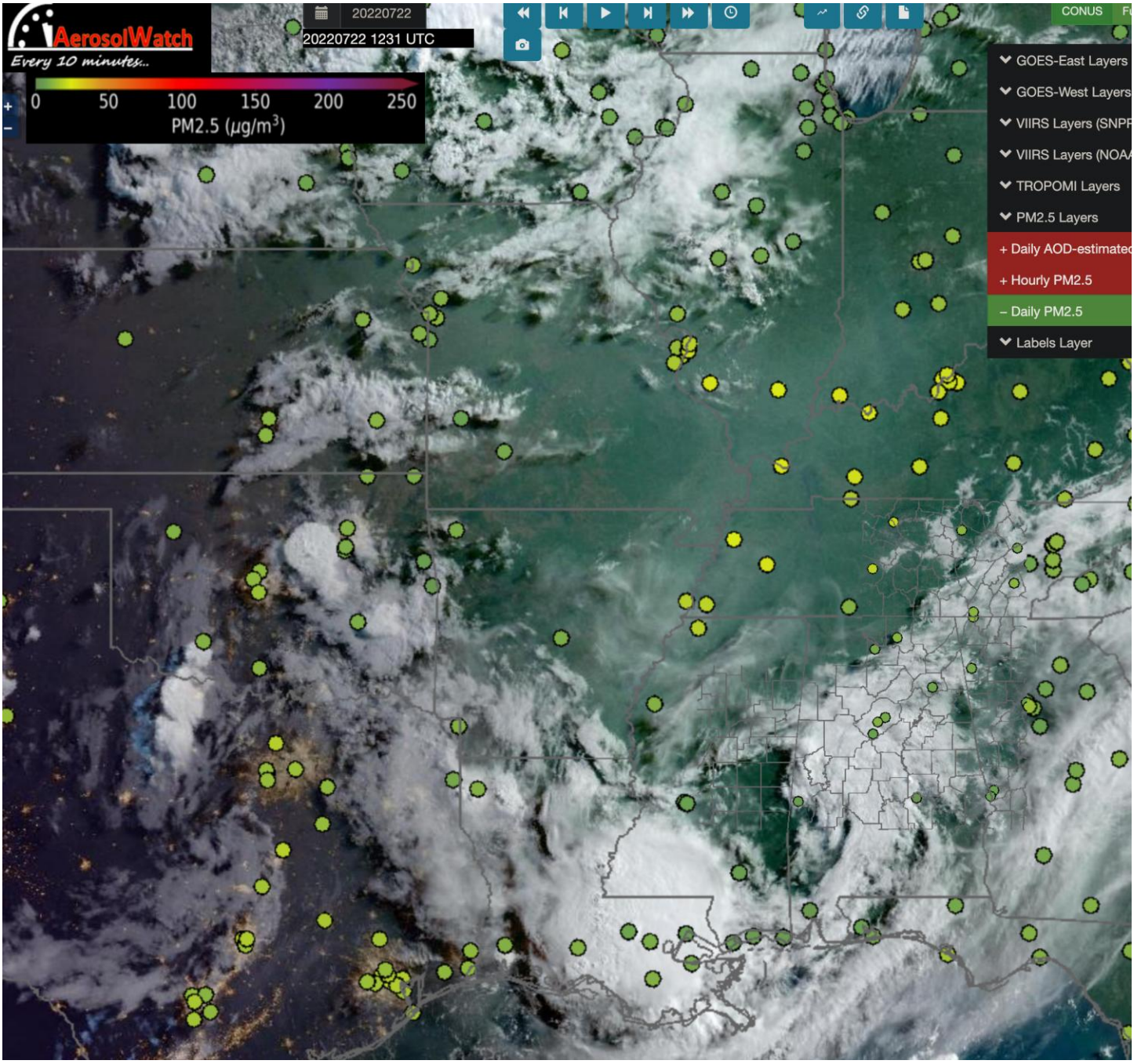
The 700mb and 500mb upper-air charts for 00Z July 22nd (7 PM CDT, July 21st) depict the upper-level atmospheric steering currents responsible for transporting smoke into the Midsouth. These analyses indicate that smoke, originating from wildfires primarily in western and central Canadian Provinces, was advected southward within the prevailing mid-tropospheric flow. This trajectory initially guided the smoke plume over the Midwest and eventually into the Midsouth, including DeSoto County.



Surface map taken 15UTC July 22nd (July 22nd, 10AM CDT) showing overall an expansive High-Pressure over the entire southeastern United States helping to lead to stagnant conditions. Weak stationary boundary lies across northern MS, AL, GA, having no effect on dissipation of smoke as it does not aid in any lifting/ventilation.



A sequence of AirNow-Tech Navigator images, spanning from July 19th through July 22nd, 2022, documents the progression of significant smoke plumes originating from wildfires in Canada. These images illustrate that, as previously noted, the smoke was transported in a general southeasterly direction from Canada into the United States. This transport was facilitated by an upper-level trough, which guided the smoke across the northern U.S. and subsequently southward into the Midsouth region. By July 22nd, the day of the event in DeSoto County, this Canadian wildfire smoke had clearly reached the area, leading to elevated PM2.5 concentrations across the Midsouth, including at the Hernando monitor.

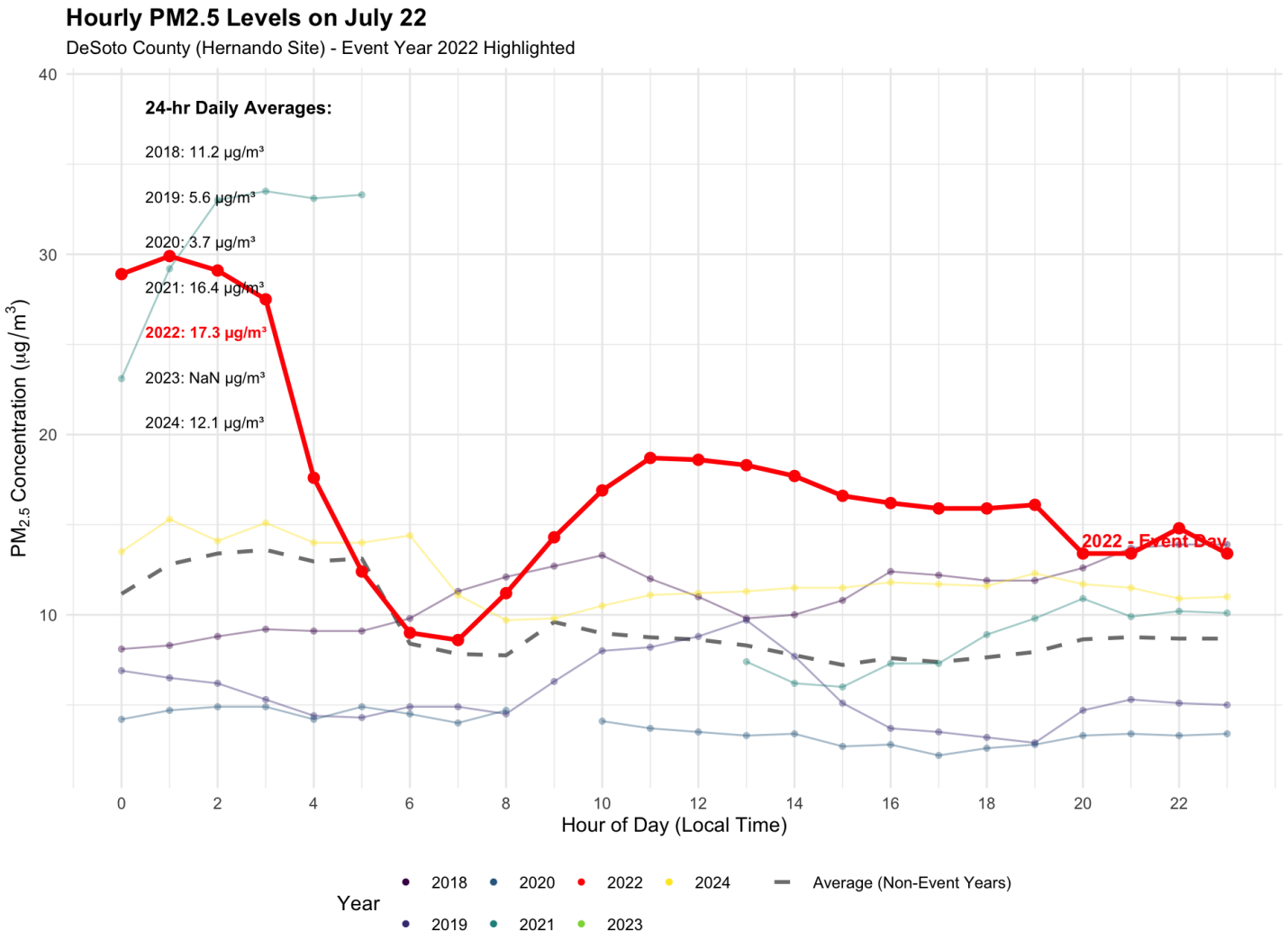


GOES True color imagery at 1231UTC (07:31CDT) on July 22nd, showing smoke layer that originated from the Canadian wildfires moved into the Midsouth and Southeast, elevating PM2.5 values well into the moderate category.

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
HERNANDO/280330002/PM2.5-88101/3	07/22/22	29.8	30.8	30	28.4	18.5	13.3	9.9	9.5	12.1	15.2	17.8	19.6	19.5	19.2	18.6	17.5	17.1	16.8	16.8	17	14.3	14.3	15.7	14.3	18.17	30.8

Hourly PM2.5 data from the Hernando site (DeSoto County) for July 22nd, 2022, as depicted above, show significantly elevated concentrations, particularly during the early morning hours when Canadian wildfire smoke was impacting the monitor. Concentrations reached approximately 29.8 µg/m^3 at hour 0, 30.8 µg/m^3 at hour 1, and 30.0 µg/m^3 at hour 2. While values decreased from these initial peaks, they remained elevated throughout the day,

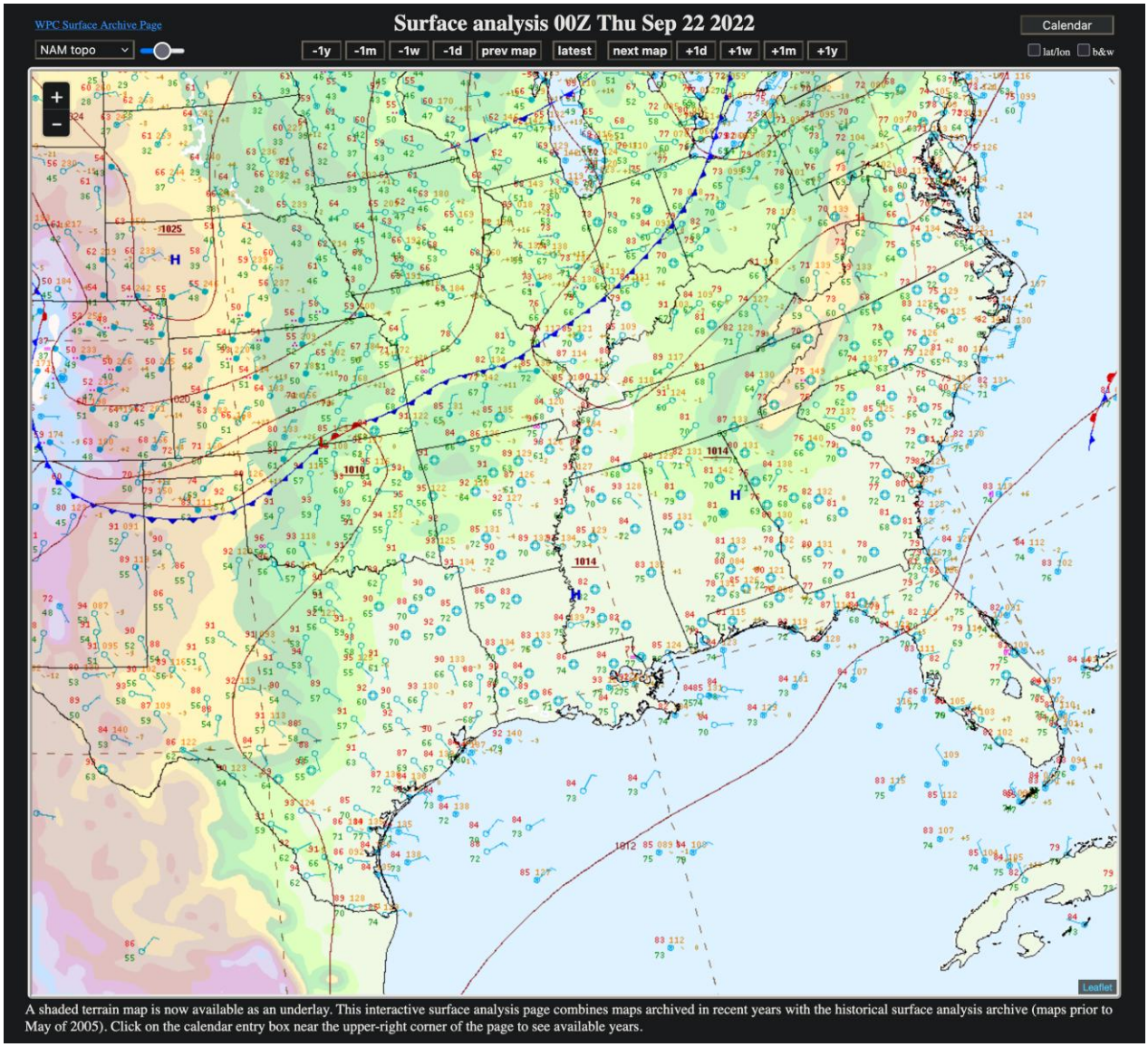
suggesting limited atmospheric dispersion and mixing, which restricted ventilation. This persistence of smoke contributed to a 24-hour daily average PM2.5 concentration of 18.17 µg/m^3



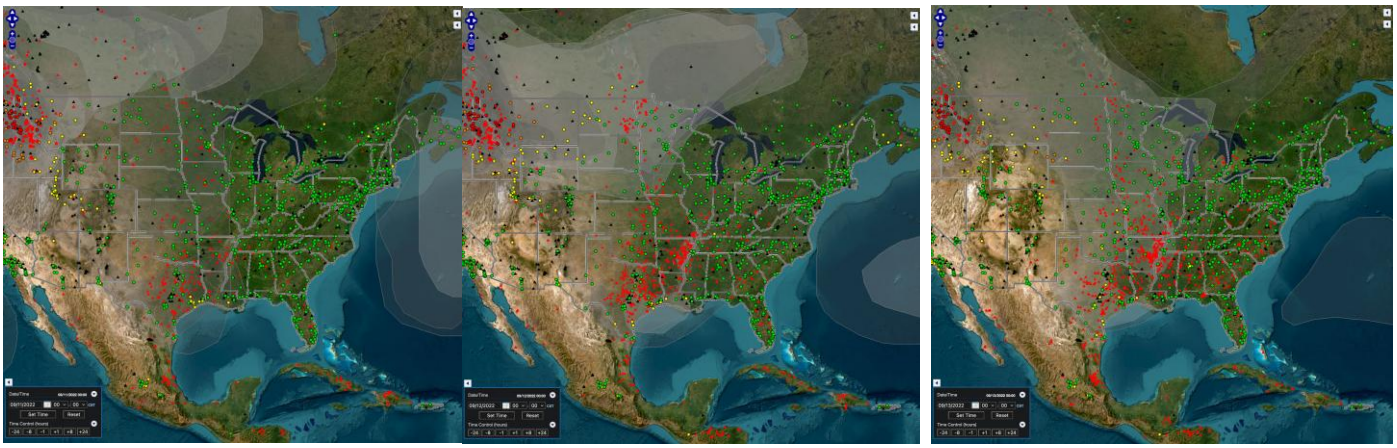
The hourly time series plot for July 22nd, displayed above, compares PM2.5 levels from recent years at the DeSoto County monitor. It highlights that concentrations during the 2022 event day were markedly higher than the 'Average (Non-Event Years)'. This significant elevation in PM2.5 is attributed to the long-range transport of Canadian wildfire smoke that impacted the region.

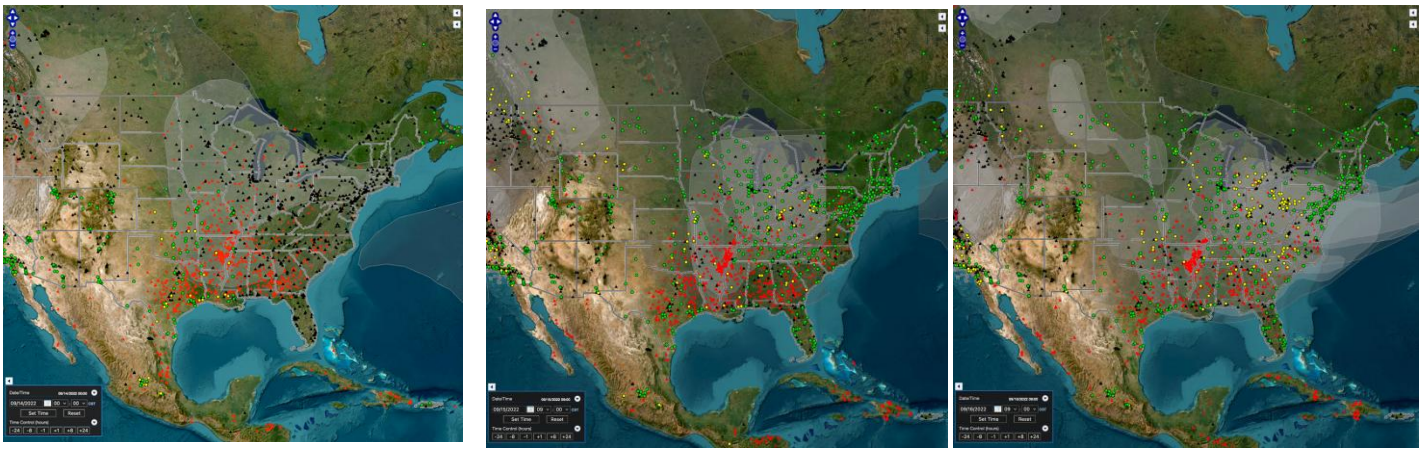
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
Sept 21, 2022	Wildfire	RT	28-033-0002	Hernando	18.9	2	Wildfire C Exceptional Event: September 21, 2022

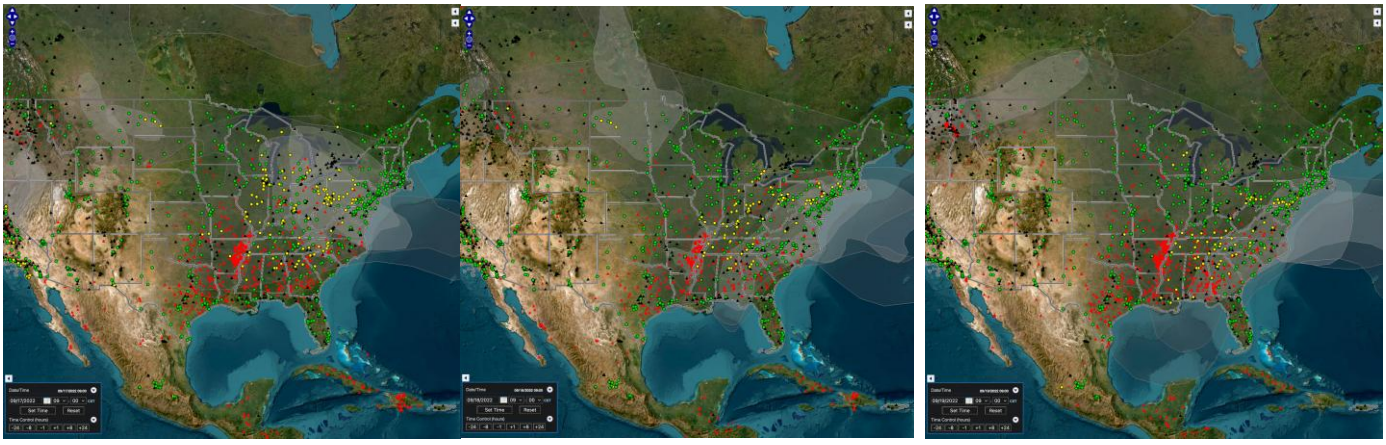
Synopsis: Strong surface High-Pressure was anchored over the southeastern states on September 21st, 2022, and in the days prior, enabling stagnant conditions. A large batch of wildfire smoke during the days prior to September 21st, 2022, was located in the Northeastern United States and along the Eastern 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, 20th, and 21st, leading to elevated PM2.5 levels across the southeastern United States The highest values at the Hernando monitor occurred on September 21st, with a 24-hour daily PM2.5 average of 18.9 µg/m^3.

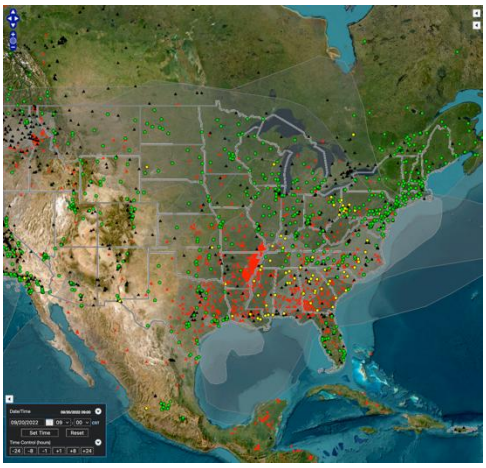
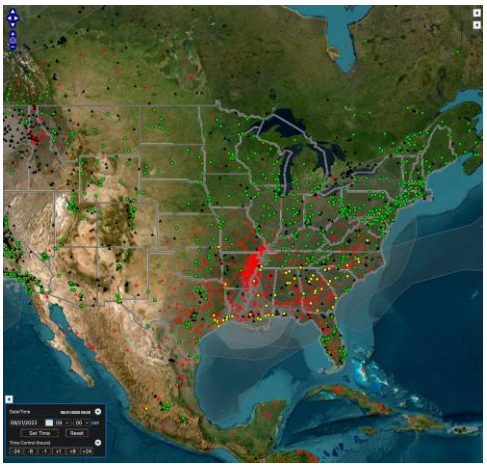


Surface map taken 00UTC Wednesday, September 22nd (Monday, September 21st, 7PM CDT) showing expansive High-Pressure over the entire southeastern United States.

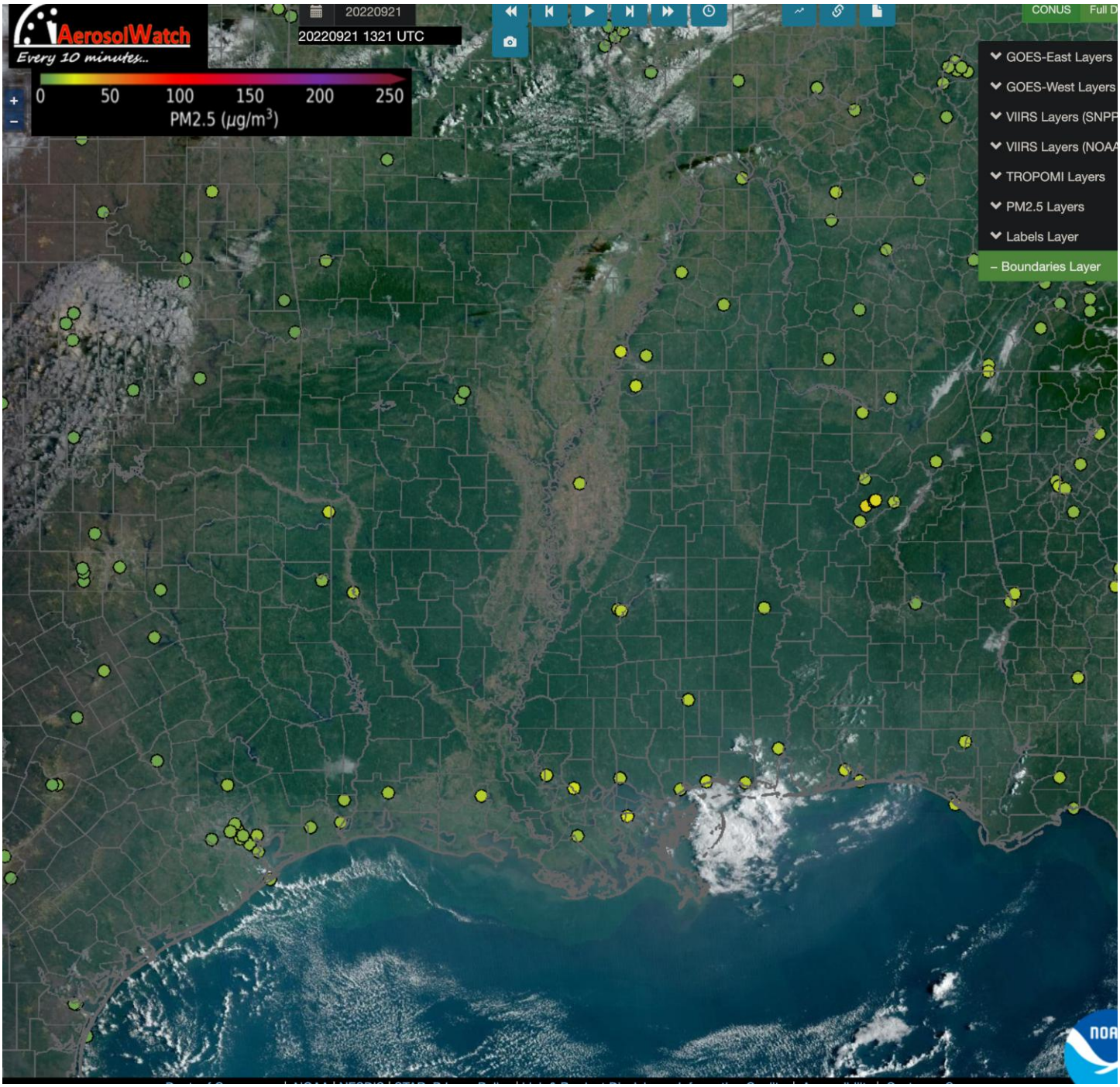




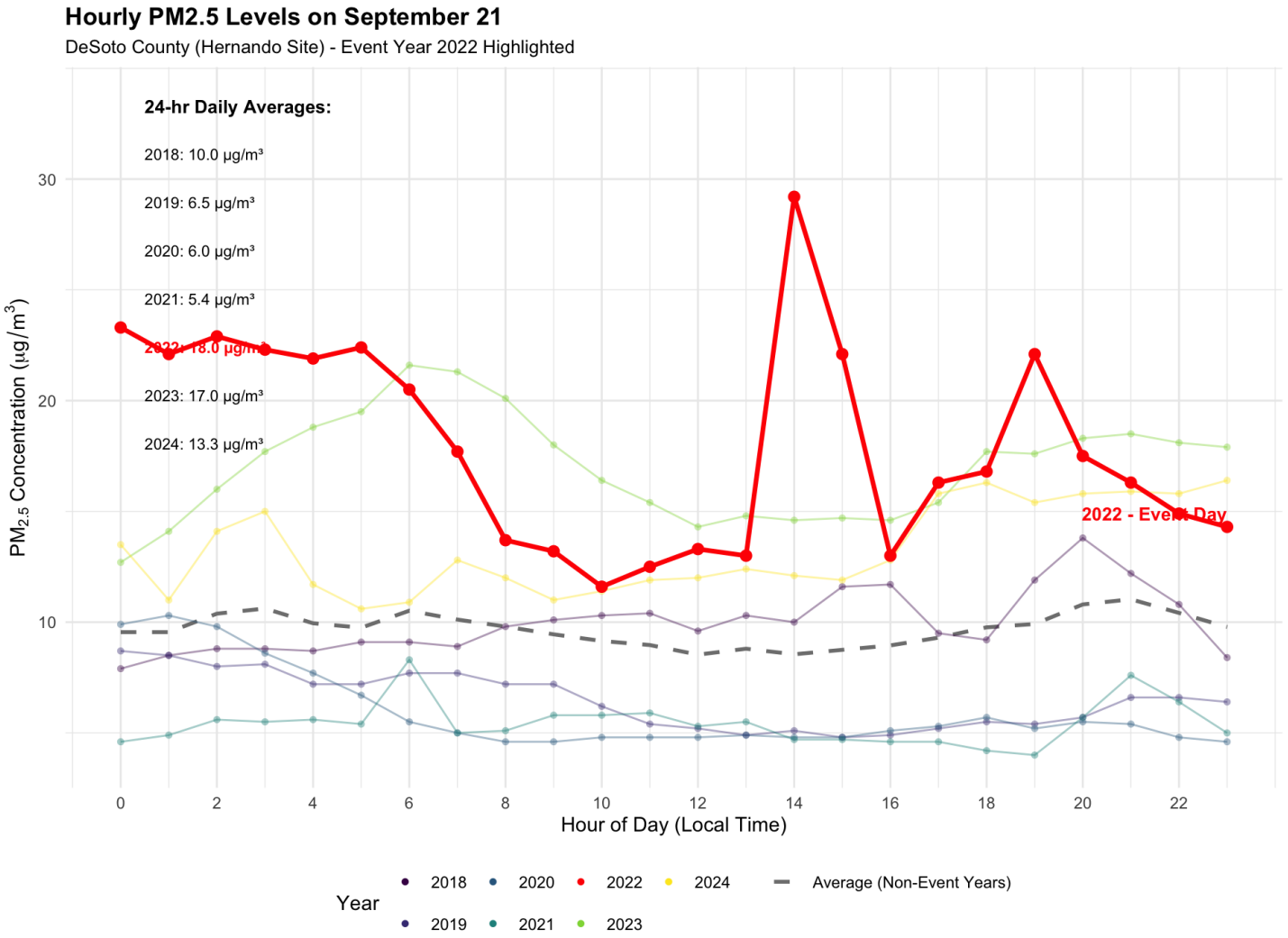


Series of Airnowtech Navigator maps showing from September 11th to September 21st, the evolution of wildfire smoke that originated from western Canada and northwestern United States, how it moved eastward across northern United States, then to the northeast, to the northeastern seaboard, eventually making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



GOES True color imagery on September 21st at 1321UTC (08:31AM CDT) showing smoke layer across Mississippi, increasing PM2.5 Values.



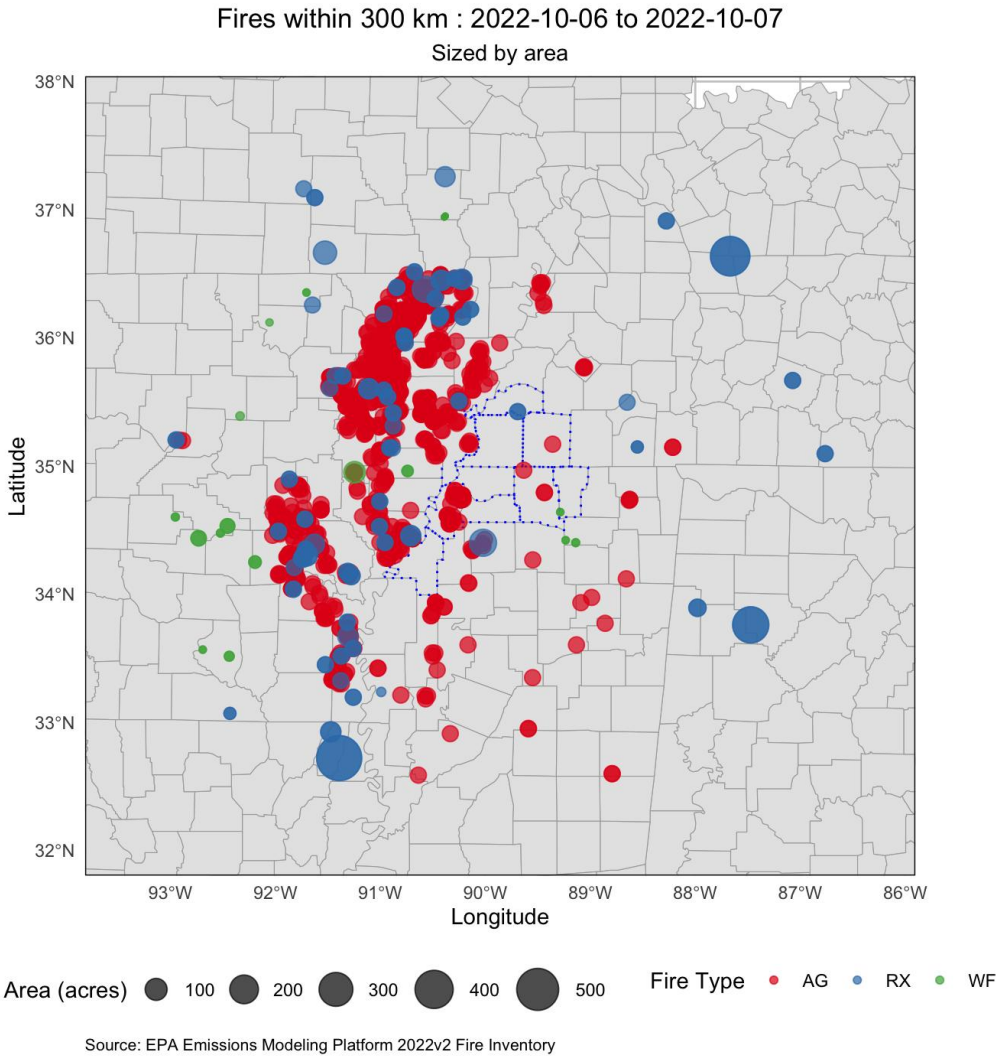
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to wildfire smoke impacting the Hernando monitor.

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 6 & 7, 2022	Prescribed Fire	RM	28-033-0002	Hernando	18.37 & 23.3	1 & 2	Prescribed Fire an Exceptional Event Demonstration: October 6 and 7, 2022

Synopsis: Following the passage of a cold front through the region on October 6th, a strong surface High-Pressure system established itself over the Midsouth. This resulted in a persistent northwesterly wind flow, creating a direct transport corridor from fire source regions in Arkansas and west Tennessee towards the DeSoto County monitor. Concurrently, a broad area of light, residual smoke was observed spanning a vast region from Texas to Virginia, which also extended over the northern Gulf of Mexico and the Atlantic. This extensive smoke was attributed to widespread prescribed burning activities occurring throughout the southeastern United States.

Analysis of the EPA Emissions Modeling Platform 2022v2 Fire Inventory confirms a dense cluster of fire activity directly upwind (northwest) of the Hernando monitor on both October 6th and October 7th. While it is acknowledged that numerous agricultural (AG) fires were active, the data also clearly identifies multiple, distinct prescribed fires (RX) intermingled within this same source region.

The provided map, "Fires within 300 km: 2022-10-06 to 2022-10-07," visually substantiates this, showing both AG (red) and RX (blue) fires to the northwest. The presence of these prescribed fires, which are recognized as potential exceptional events, provides a basis for this demonstration.

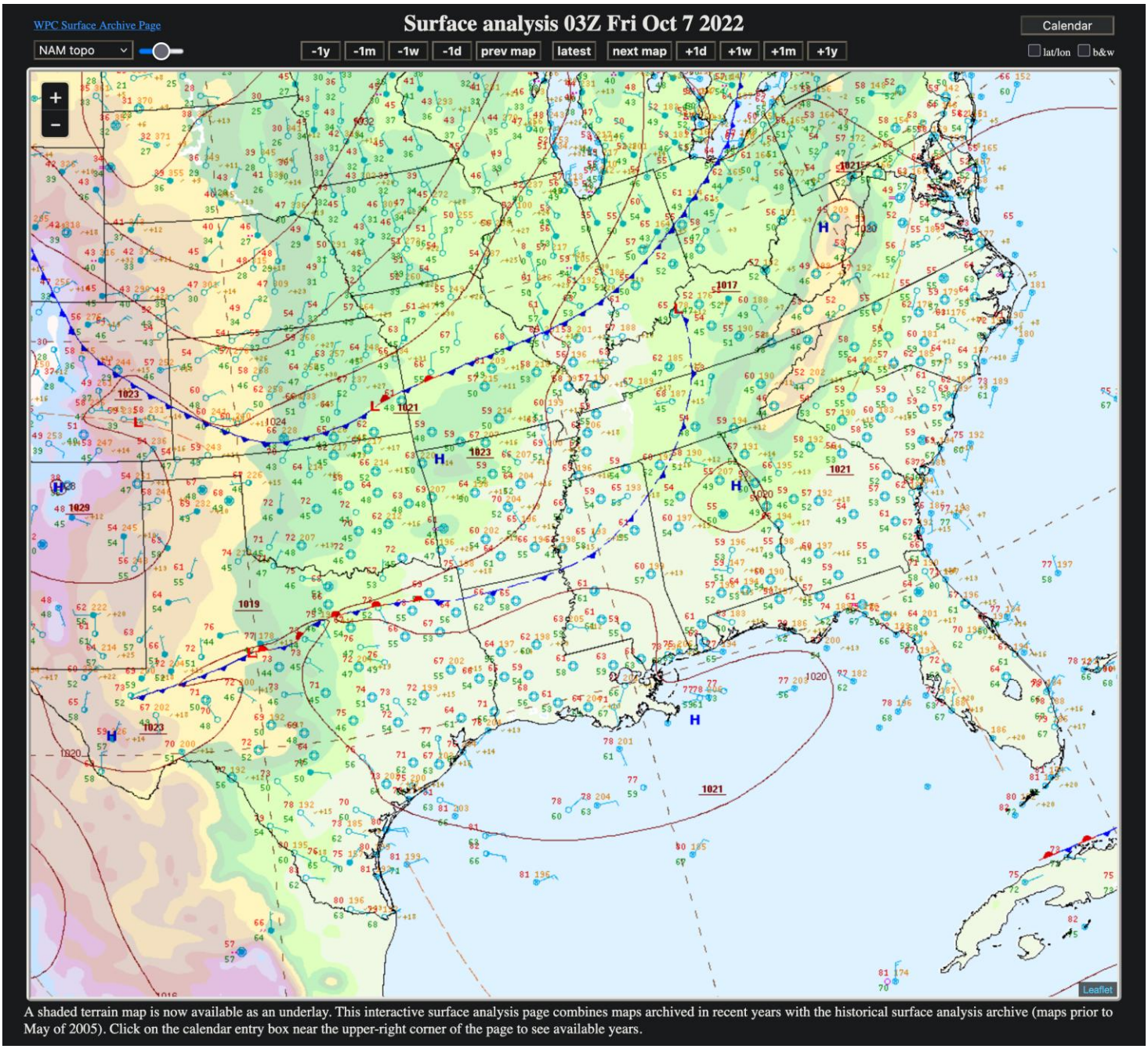


October 6, 2022:
Under the influence of northwesterly winds, smoke from the upwind source region, which demonstrably included both agricultural and prescribed fires, was transported directly towards the Hernando monitor. This influx of smoke was the primary cause of the elevated PM2.5 concentrations observed that afternoon, which reached a one-hour maximum of **49.9 µg/m^3**. Overnight, the strong High-Pressure system created a classic nocturnal inversion, trapping this smoke-laden airmass near the surface. This prevented the dispersion of pollutants and caused PM2.5 concentrations to remain elevated, with values persisting in the 20s and 30s (µg/m^3) at the Hernando monitor.

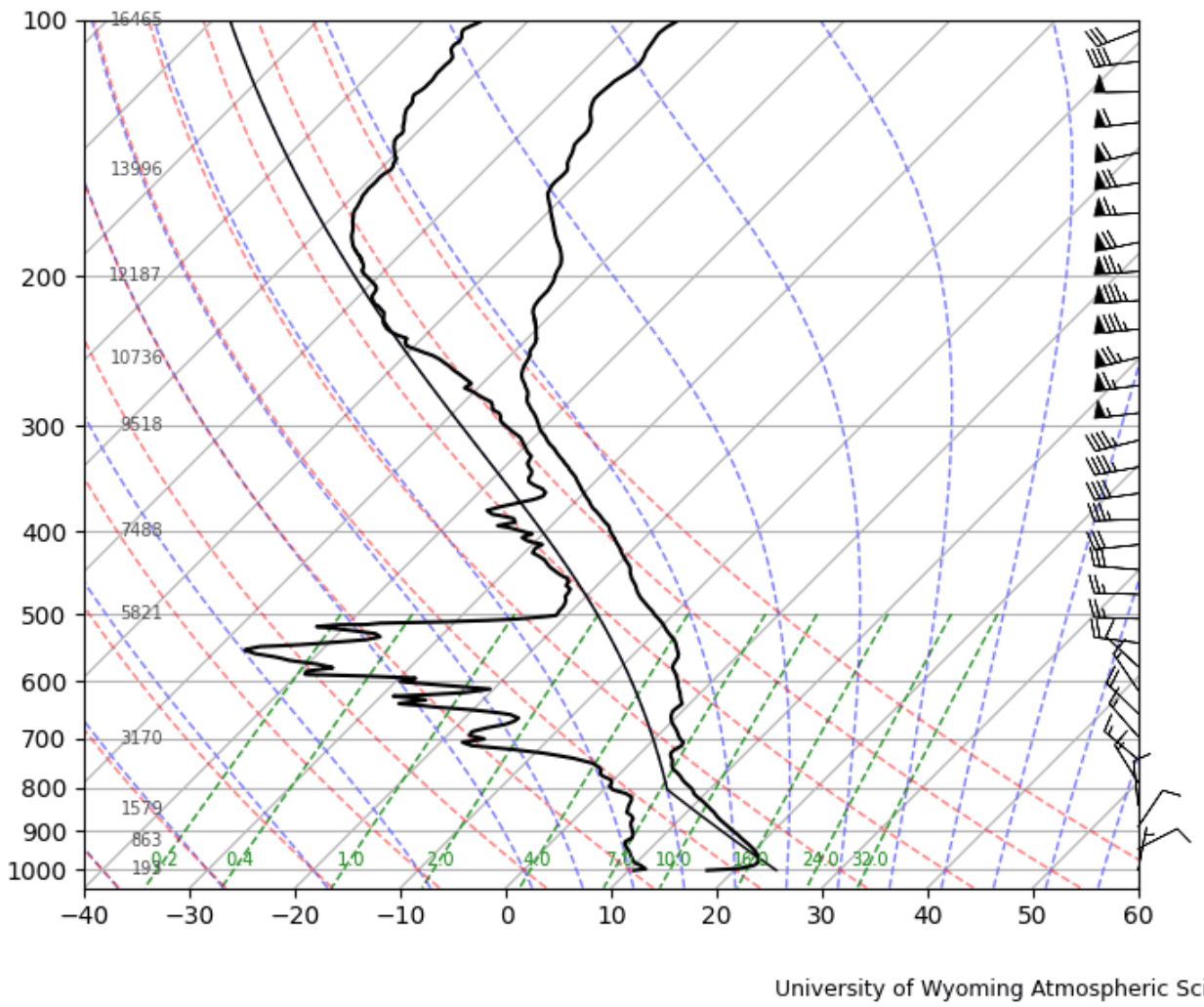
October 7, 2022:
Concentrations initially decreased on the morning of October 7th with the onset of daytime atmospheric mixing, which eroded the inversion. However, fire data confirms that burning activity, including prescribed fires, continued throughout the day in the same upwind source area. As a result, PM2.5 levels at the Hernando monitor began to climb significantly once again as the smoke was transported into the area. This led to a more severe pollution event than the previous day, with the monitor recording a one-hour maximum of **85.1 µg/m^3**.

The elevated PM2.5 concentrations recorded at the DeSoto County monitor on October 6th and 7th, 2022, were a direct consequence of smoke transported from a dense area of upwind fire activity under a persistent northwesterly wind regime. While acknowledging the presence of non-qualifying agricultural fires, the official fire

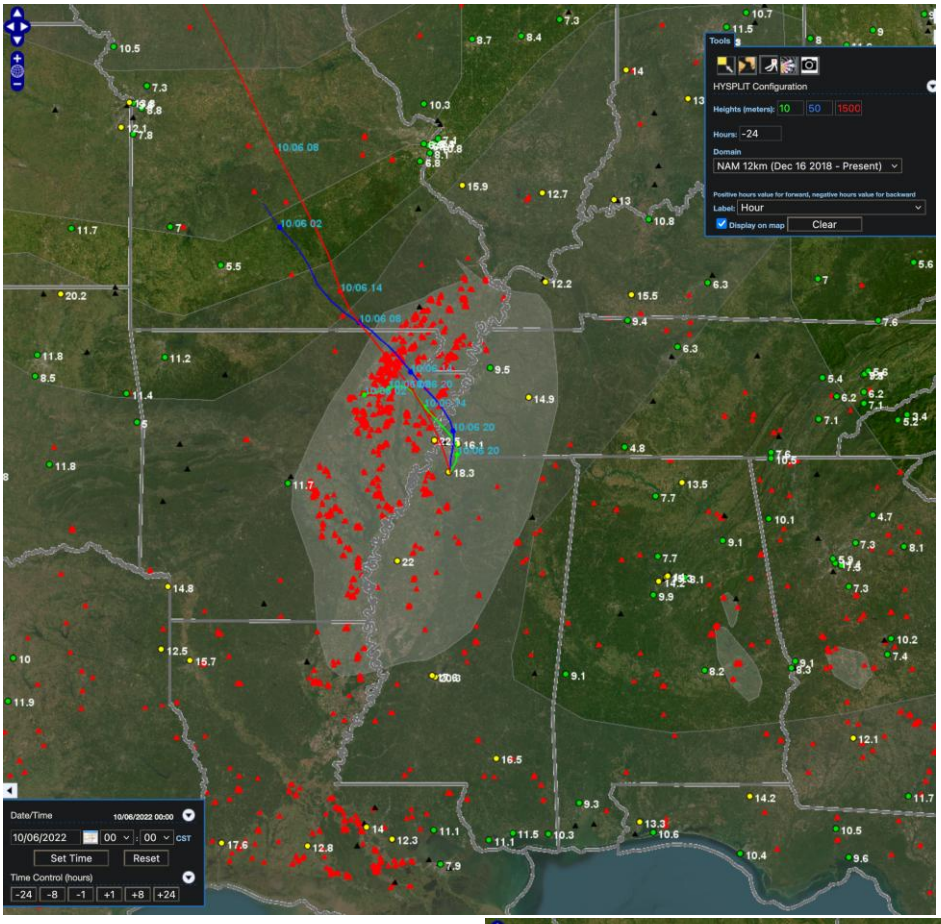
inventory data and corresponding map unequivocally document that qualifying prescribed fires were also active and co-located within the same source region.

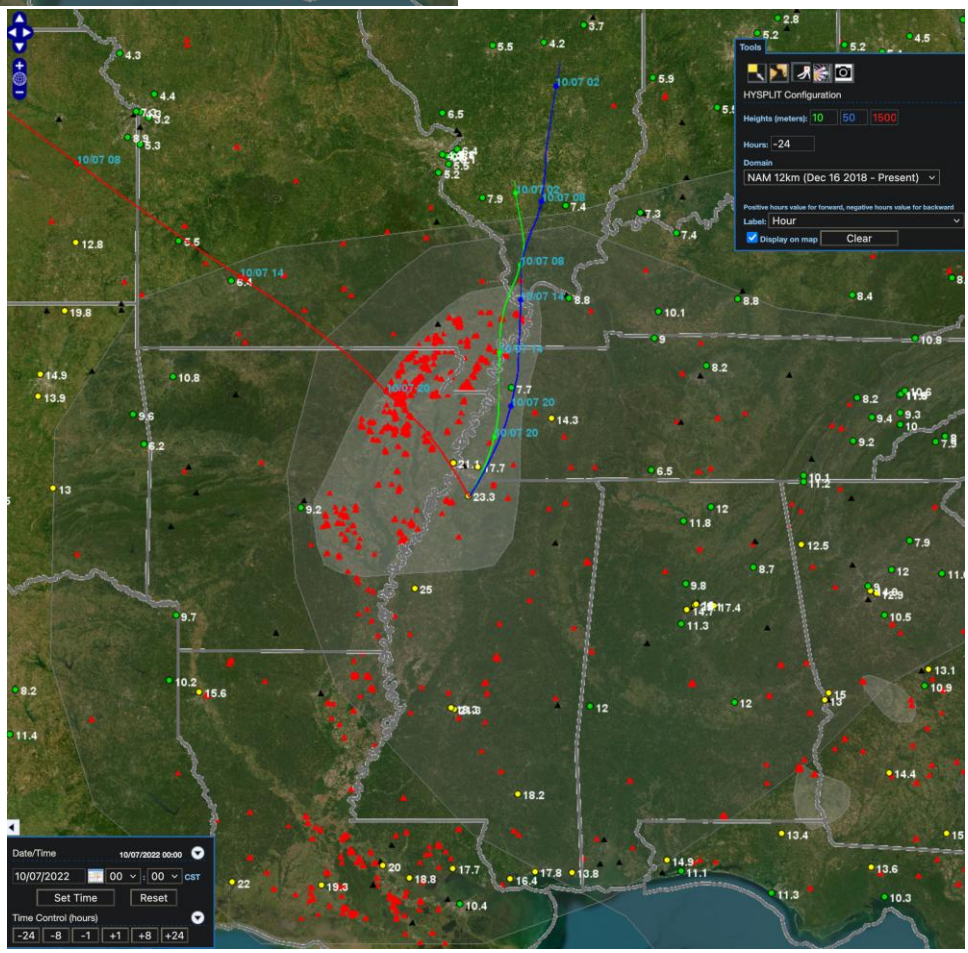


Surface map taken 03UTC Friday, October 7th (Thursday, October 6th, 10PM CDT) showing expansive frontal passage that had passed through earlier with High-Pressure establishing itself overnight across the Midsouth, leading to strong nocturnal inversion resulting in trapping of smoke near surface, keeping PM2.5 values elevated.

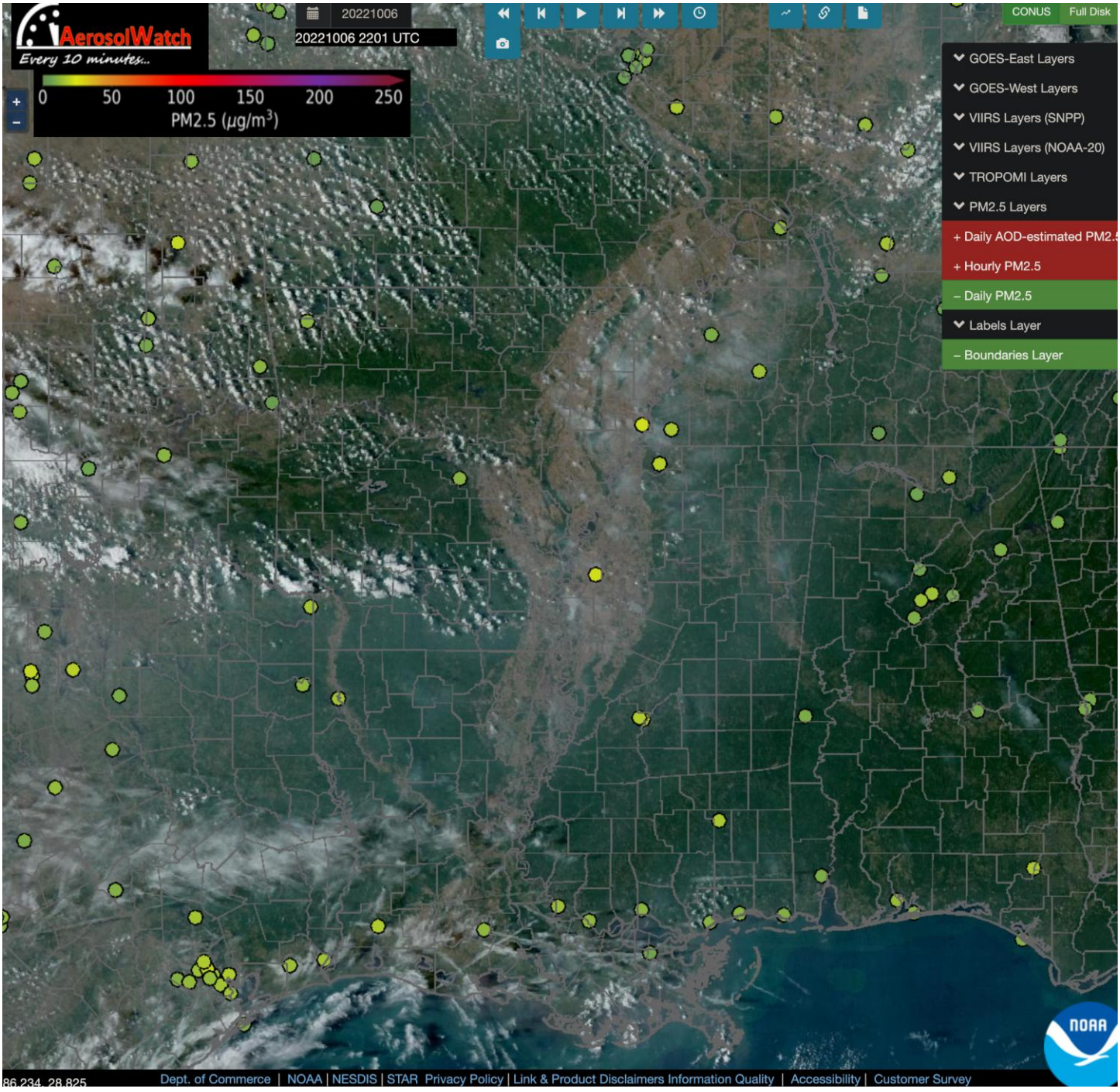


The 12Z sounding for the morning of October 7th from Little Rock, Arkansas clearly depicts a strong, low-level nocturnal inversion present around sunrise. This layer of stable air effectively trapped pollutants, including smoke from the previous day's prescribed fires, near the surface. By preventing vertical mixing, this inversion directly contributed to the elevated PM2.5 concentrations observed at the Hernando monitor during the overnight hours.

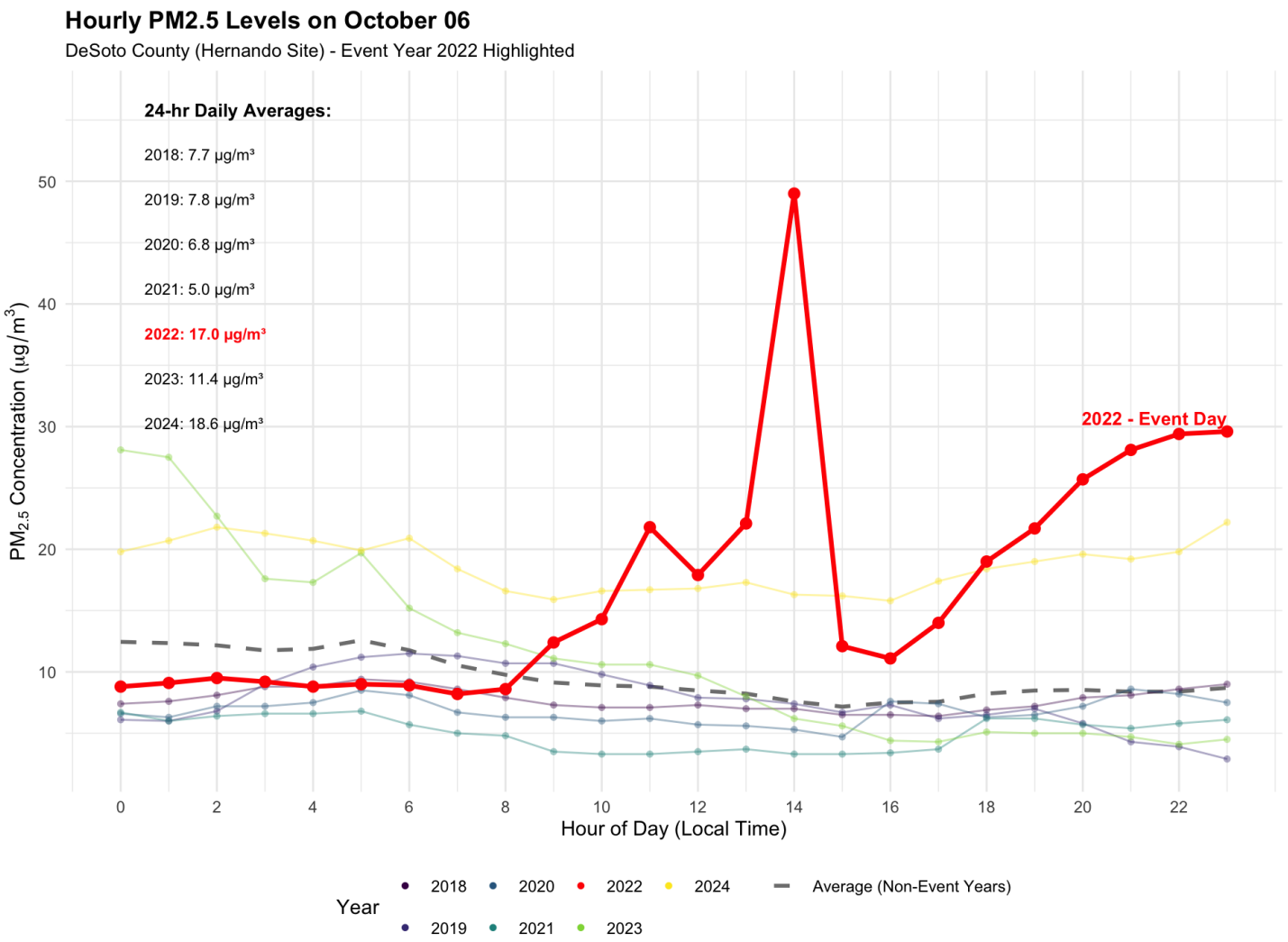

Tools
HYSPLIT Configuration
Heights (meters): 10 50 1500
Hours: -24
Domain
NAM 12km (Dec 16 2018 - Present)
Positive hours value for forward, negative hours value for backward
Label: Hour
Display on map
Clear
10/06 08
10/06 02
10/06 14
10/06 20
Date/Time 10/06/2022 00:00
10/06/2022 00 : 00 CST
Set Time
Reset
Time Control (hours)
-24 -8 -1 +1 +8 +24


Tools
HYSPLIT Configuration
Heights (meters): 10 50 1500
Hours: -24
Domain
NAM 12km (Dec 16 2018 - Present)
Positive hours value for forward, negative hours value for backward
Label: Hour
Display on map
Clear
10/07 02
10/07 08
10/07 14
10/07 20
Date/Time 10/07/2022 00:00
10/07/2022 00 : 00 CST
Set Time
Reset
Time Control (hours)
-24 -8 -1 +1 +8 +24

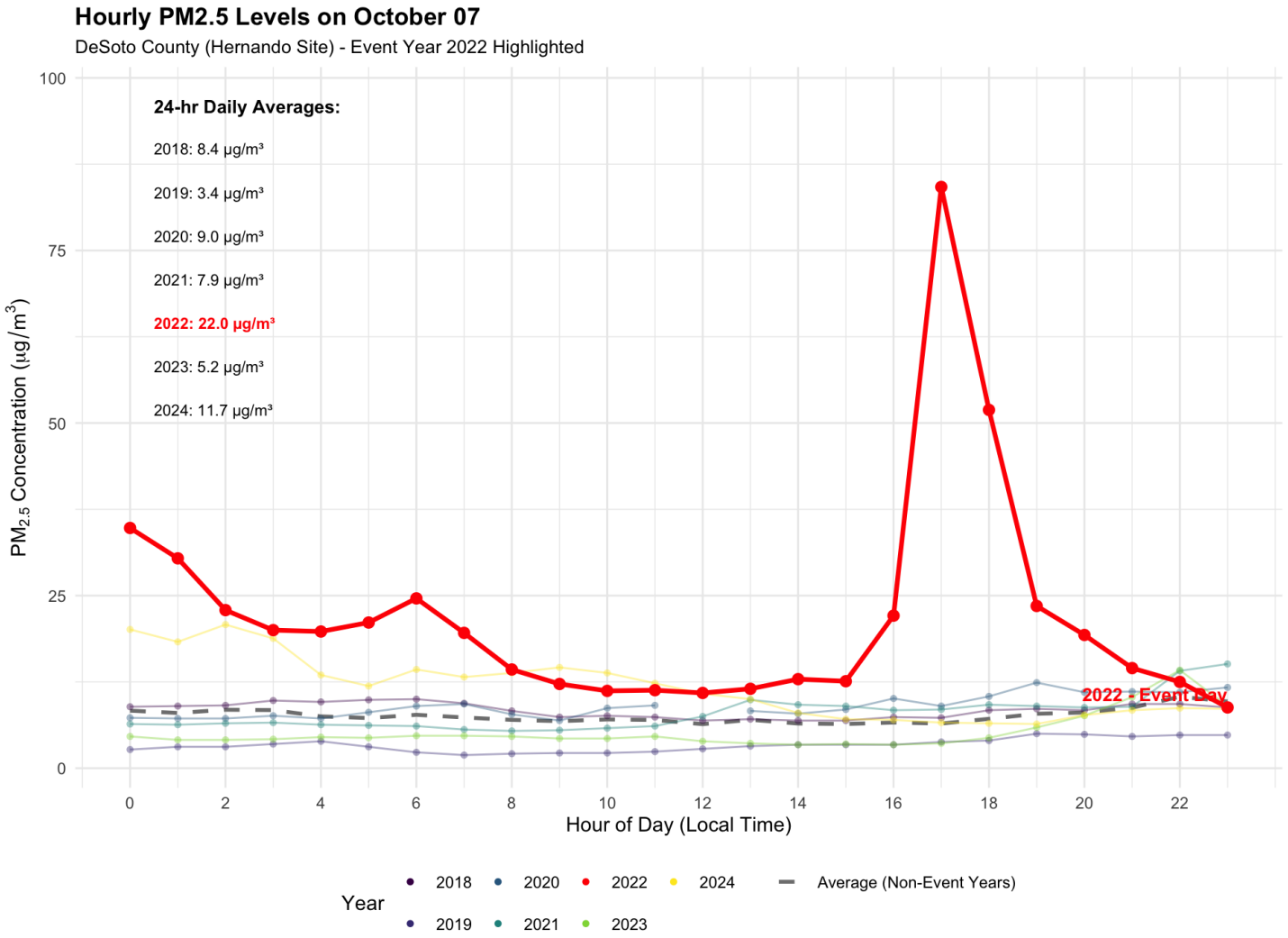
Airnowtech Navigator images showing HYSPLIT 24-hour back trajectories further confirming a direct transport pathway from the upwind fire clusters to the Hernando monitor. On both October 6th and October 7th, trajectories initiated at multiple altitudes (10m, 50m, and 1500m) consistently originate from the northwest, passing directly over the dense areas of identified prescribed and agricultural burns in Arkansas advecting smoke towards the Hernando monitor, elevating PM2.5 values.



GOES True color imagery on October 6th at 2201UTC (17:31PMCDT) showing smoke layer across Mississippi, including the Hernando monitor, increasing PM2.5 Values.



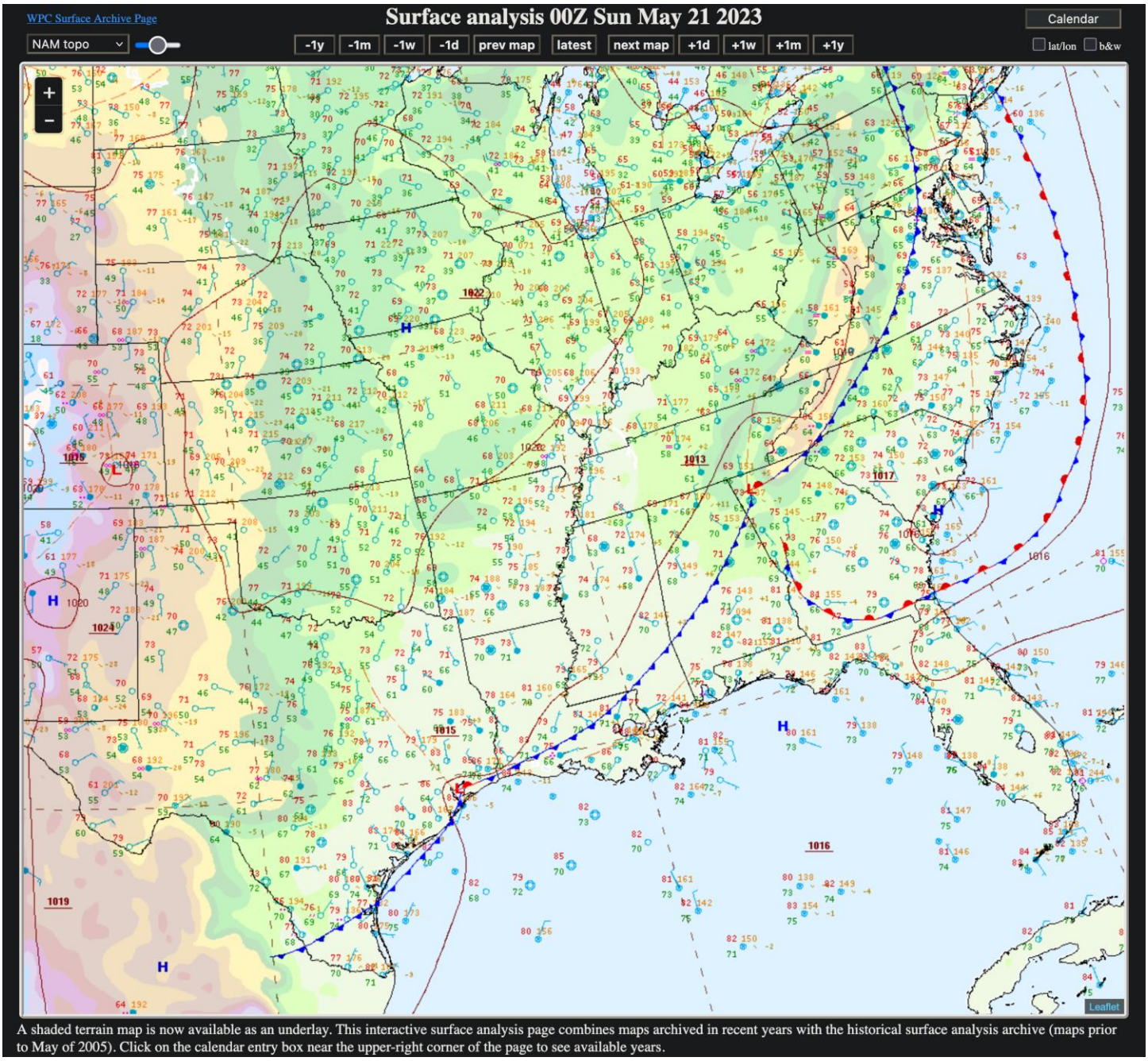
The seven-year hourly time series above from October 6th shows that PM2.5 concentrations in 2022 were notably higher than in previous non-exceptional years, largely due to impacts from prescribed fire smoke. During this event, a smoke plume directly impacted the Hernando monitor, causing a sharp afternoon spike of 49.9 µg/m^3. Subsequently, the formation of a nocturnal inversion trapped this smoke near the surface, causing PM2.5 values to remain elevated through the evening.



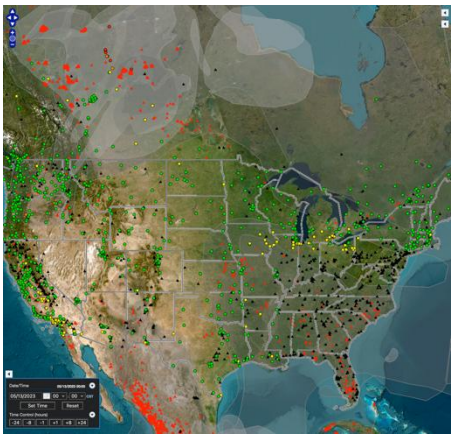
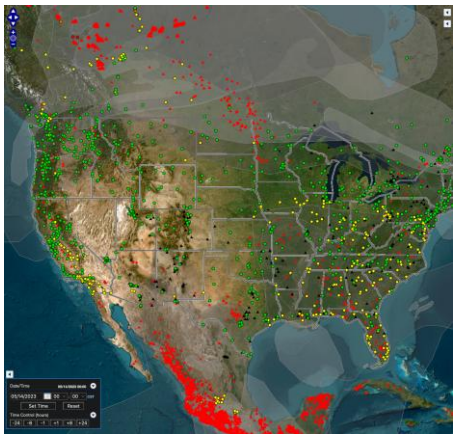
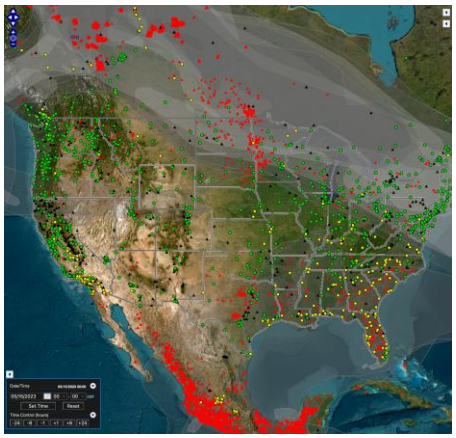
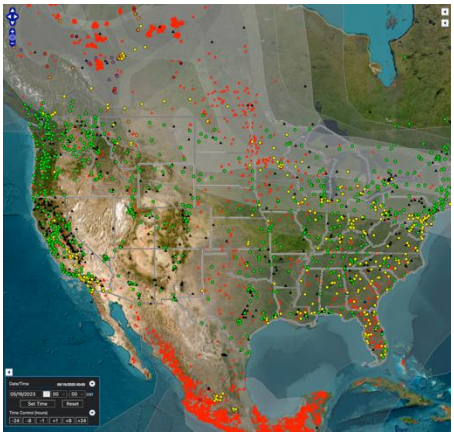
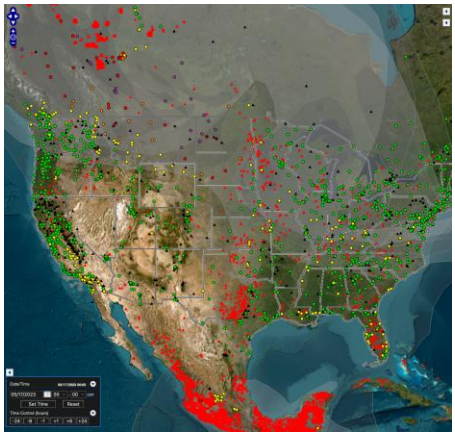
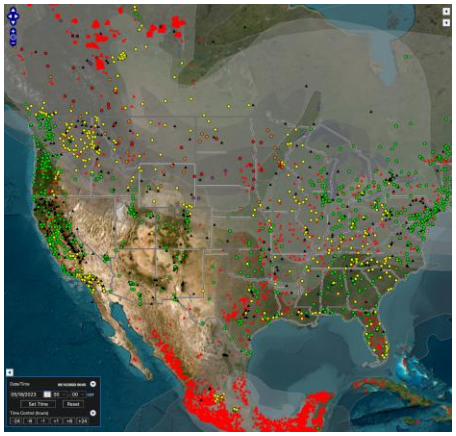
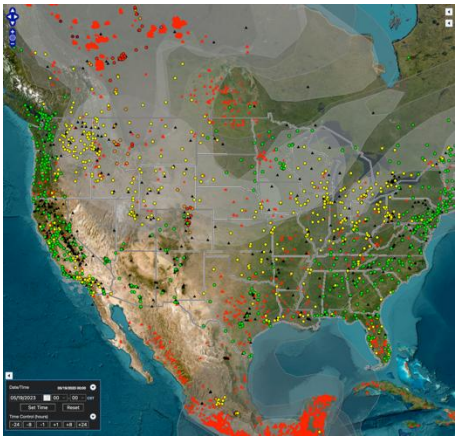
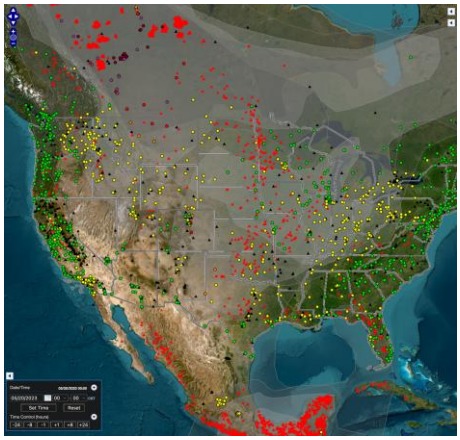
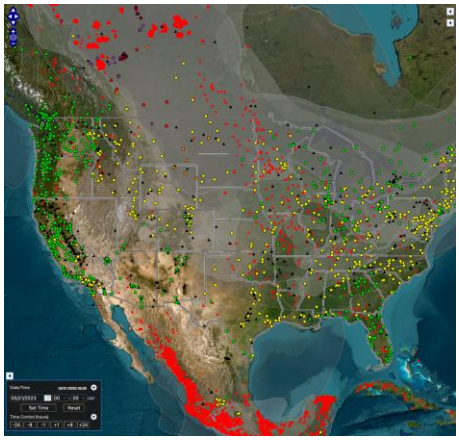
The hourly time series cross-section in the figure above from October 7th illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2022 compared to the average of non-exceptional years thanks in large part to prescribed fire smoke impacting the Hernando monitor. Notice how values decrease during the morning hours as mixing heights deepen then as the prescribed fires start back up during the afternoon, PM2.5 values increase with a one-hour spike of 85.1 as a plume was directly affecting the monitor.

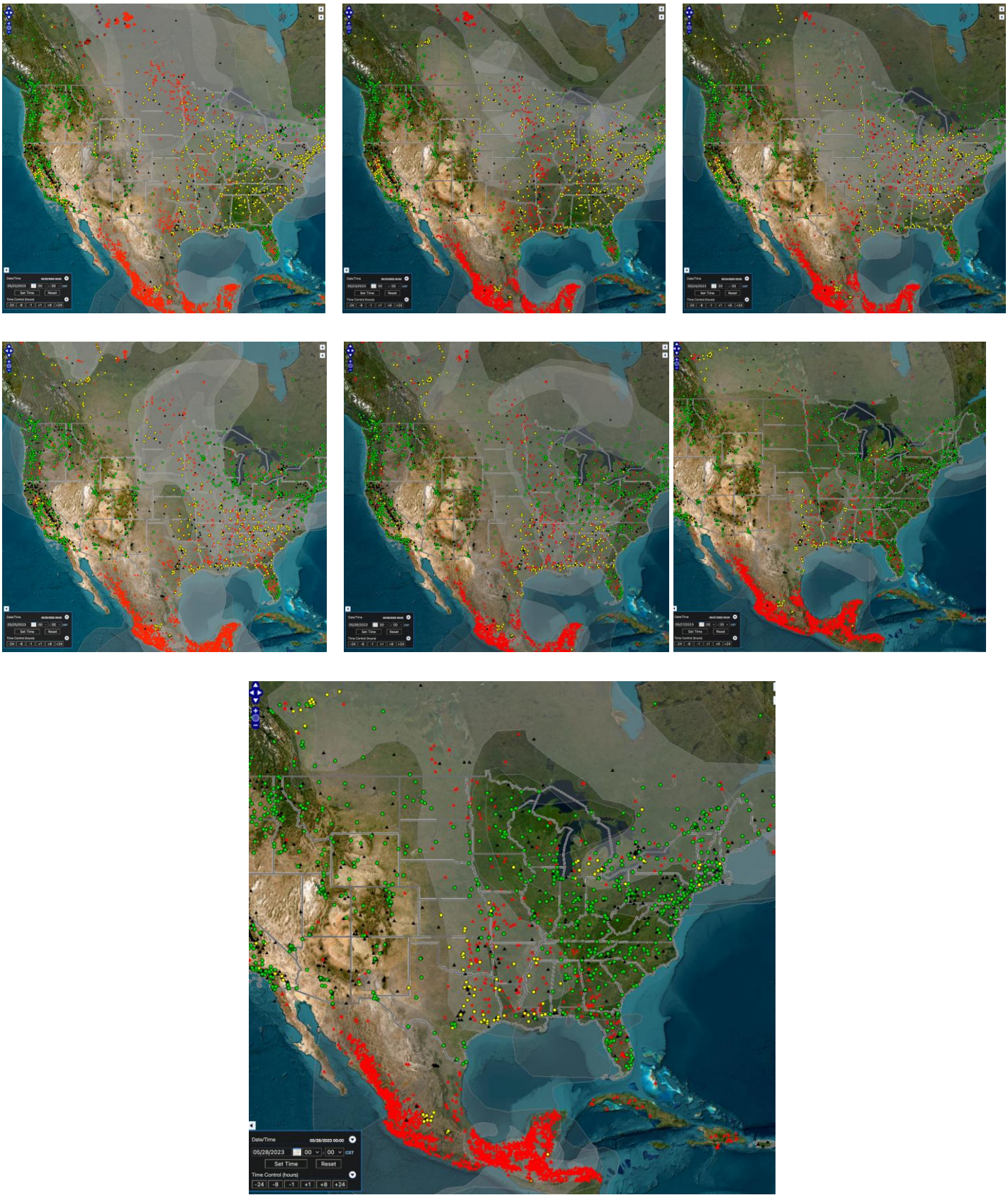
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
May 20-28, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	28.3, 27.2, 30.7, 16.4, 24.2, 26, 16.7, 16.1, 19.9	1 & 2	Canadian Wildfire C Exceptional Event Demonstration: May 20 -28, 2023

Synopsis: May 20th through the 28th, the Hernando 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.



00z surface analysis (May 20th, 2023, at 7PM CDT), the start date for the exceptional event period for the Hernando monitor, showing frontal passage, where northerly flow behind these frontal passages would transport Canadian wildfire smoke over the area.

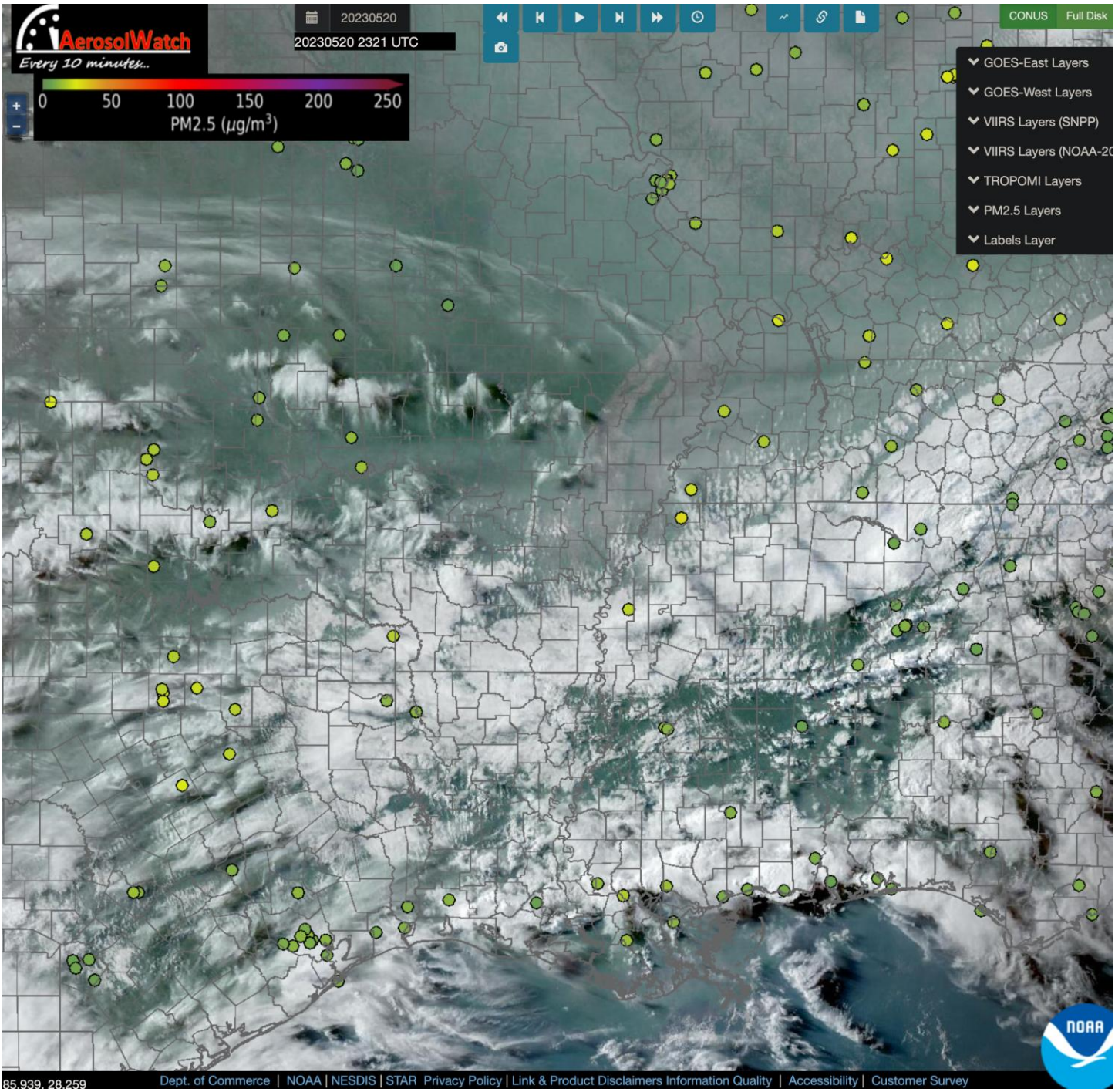












Series of AirNowTech Navigator image taken from May 13th, 2023, through May 28th, 2023, show the progression of smoke from the Canadian wildfires, into the eastern 2/3rds of the United States. Transport of the smoke into the United States was aided by persistent Upper-Level troughing, helping push a 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.

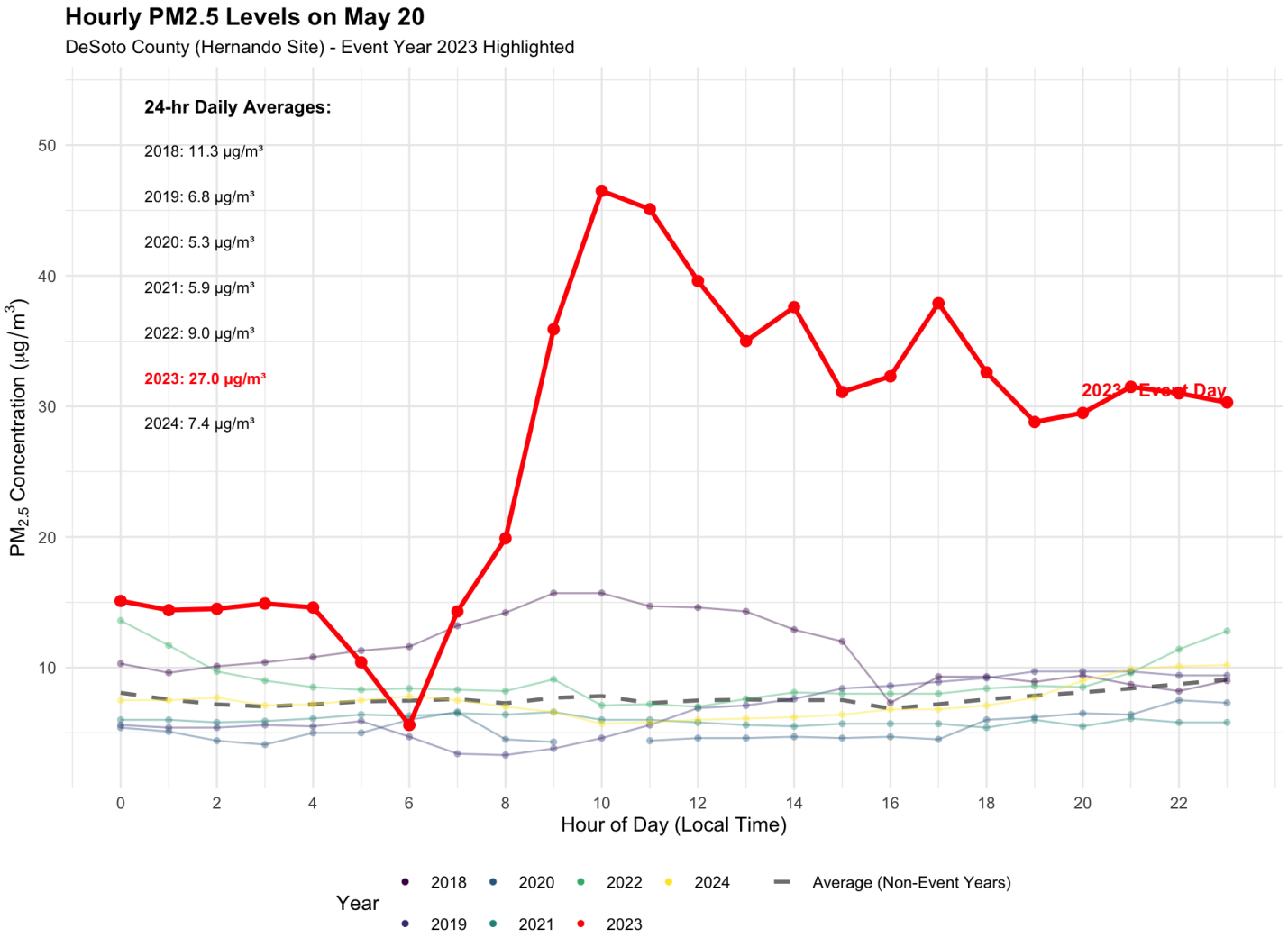
The AirNowTech Navigator image taken from May 20th, 2023, above, shows ongoing wildfires in northwestern Canada with numerous PM2.5 sites reading into the purple or very unhealthy category, indicative of high surface smoke concentrations across the area where fires originated. 72 Hour Back trajectories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



GOES East True Color image taken on May 20th, 2023, at 2321UTC, showing expansive smoke shield covering the Midsouth that was transported southward from Canadian wildfires behind frontal boundary that had moved through earlier that morning.

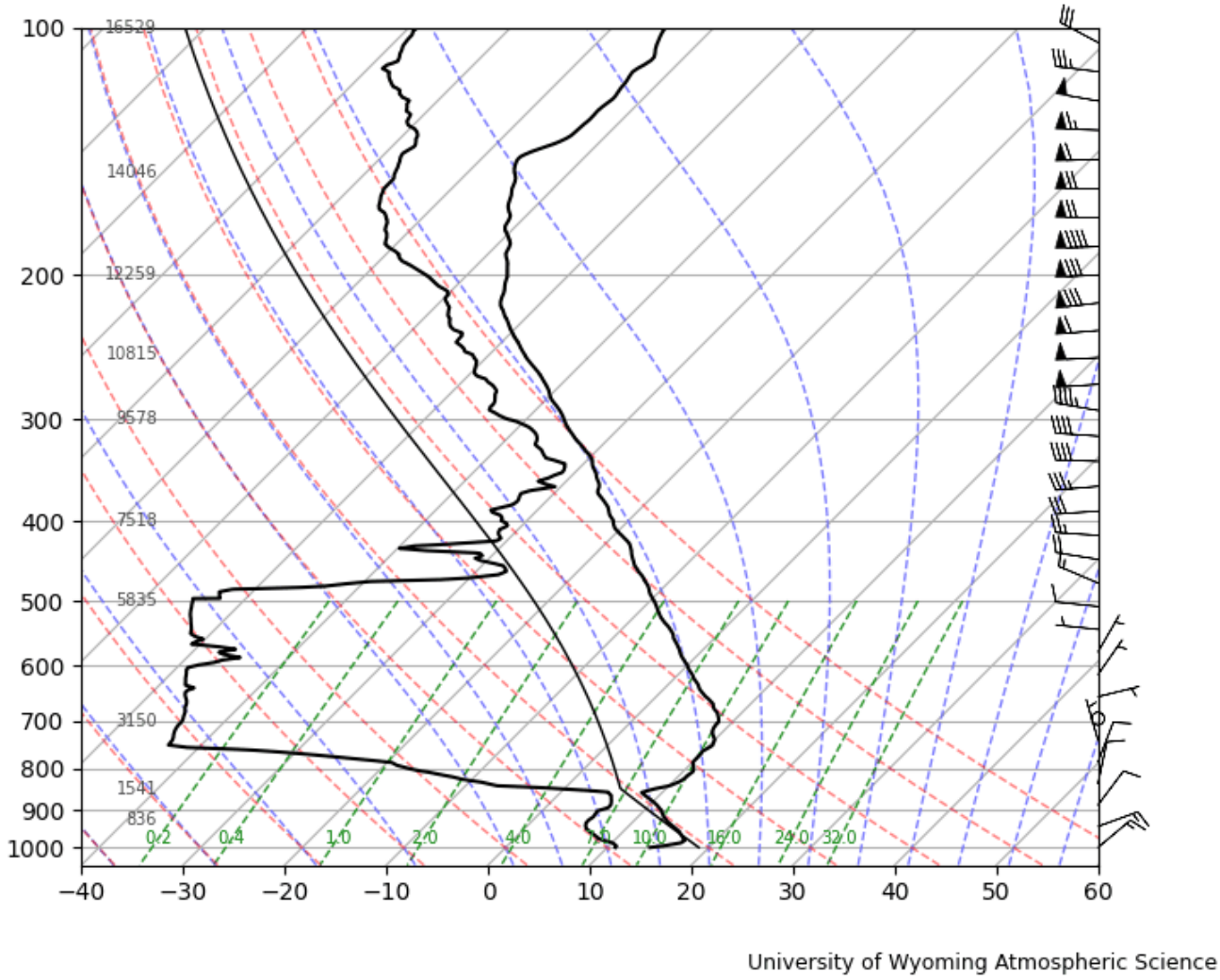
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/20/23	16	15.3	15.4	15.8	15.5	11.3	6.9	16.2	21.8	37.8	48.4	47	40.5	35.9	38.5	32	33.2	38.8	33.5	30.7	31.4	33.4	32.9	32.2	28.35	48.4

Following a morning frontal passage, strong northerly winds advected a thick plume of Canadian smoke into the Midsouth. This caused PM2.5 levels at the Hernando monitor to become elevated, resulting in a 24-hour daily average of 28.35 µg/m^3.

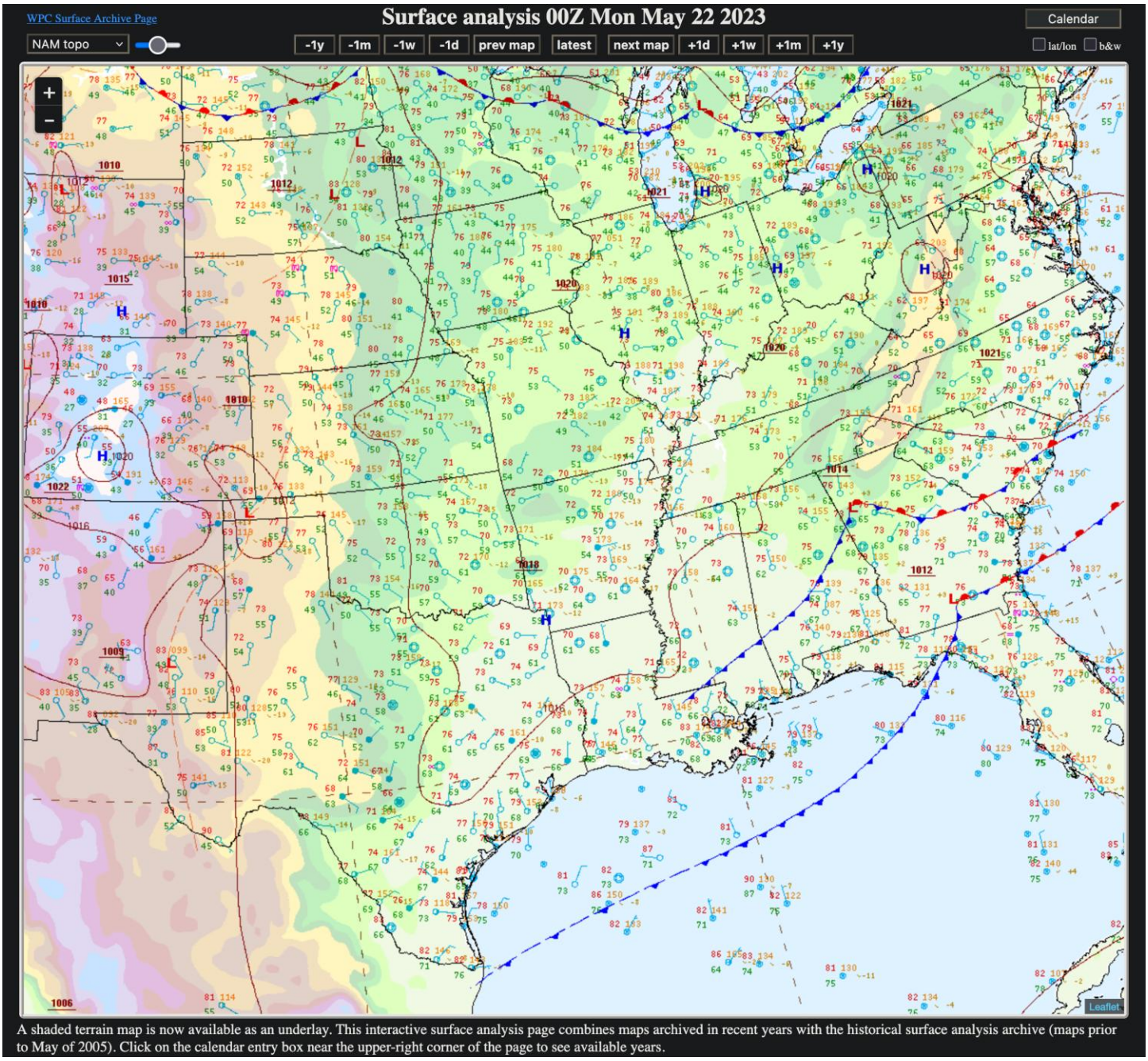


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian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

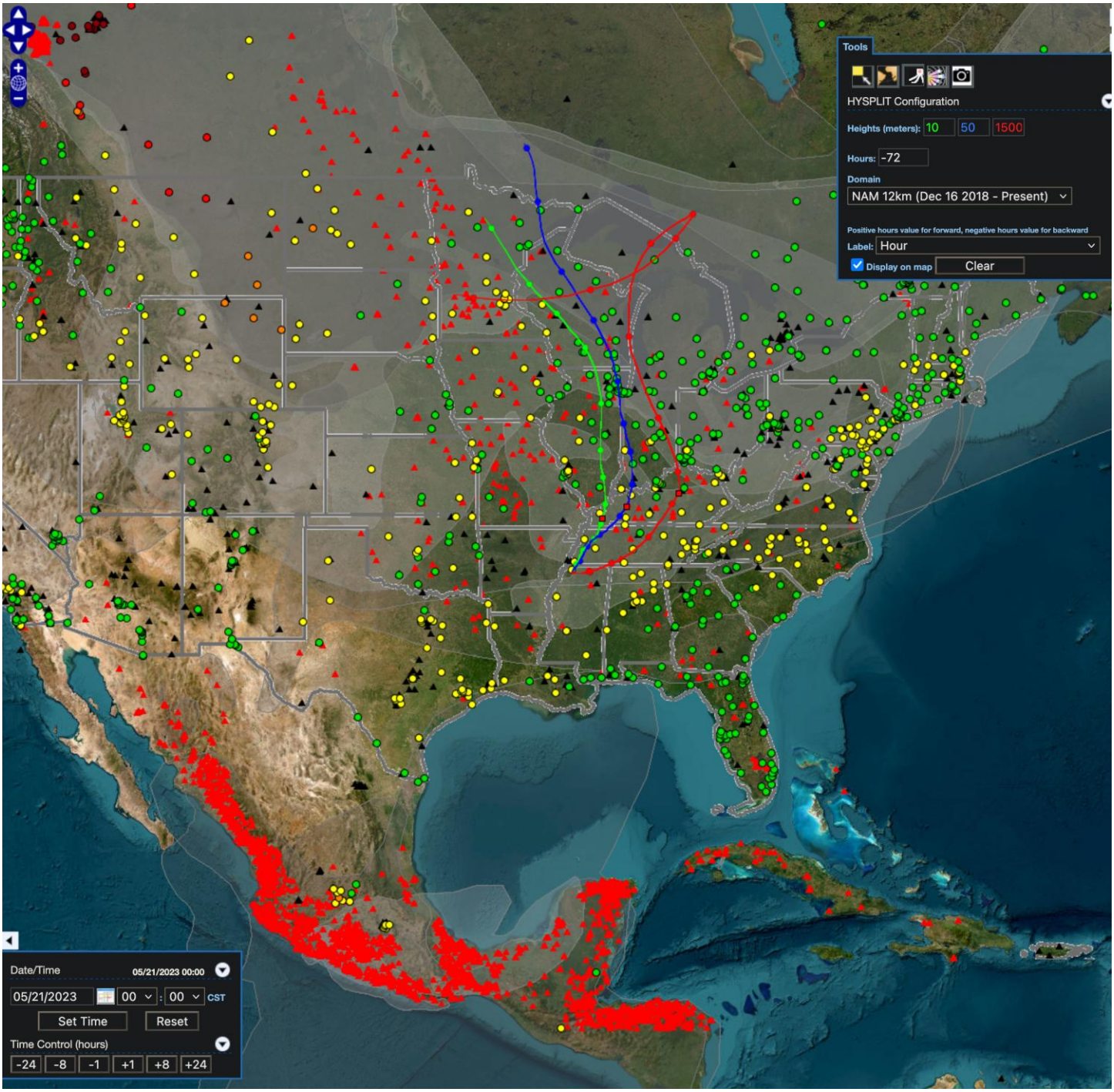
May 21st: On May 21st, northerly flow continued to transport Canadian smoke over the Midsouth, keeping PM2.5 values elevated. The previous night (May 20-21), after smoke had advected into the region during the day, High-Pressure settled over the area. This led to calm winds and created favorable conditions for a low-level nocturnal inversion to develop, which trapped smoke near the surface and kept PM2.5 values elevated overnight. This pattern repeated on May 21st; continued northerly winds brought more smoke during the day, and as winds calmed after sunset, another strong nocturnal inversion formed, once again trapping smoke and elevating PM2.5 concentrations through the night.



Morning sounding on May 21st, 2023, from Little Rock, shows low level nocturnal inversion that set up overnight trapping smoke near the surface, increasing PM2.5 concentrations at the Hernando monitor.



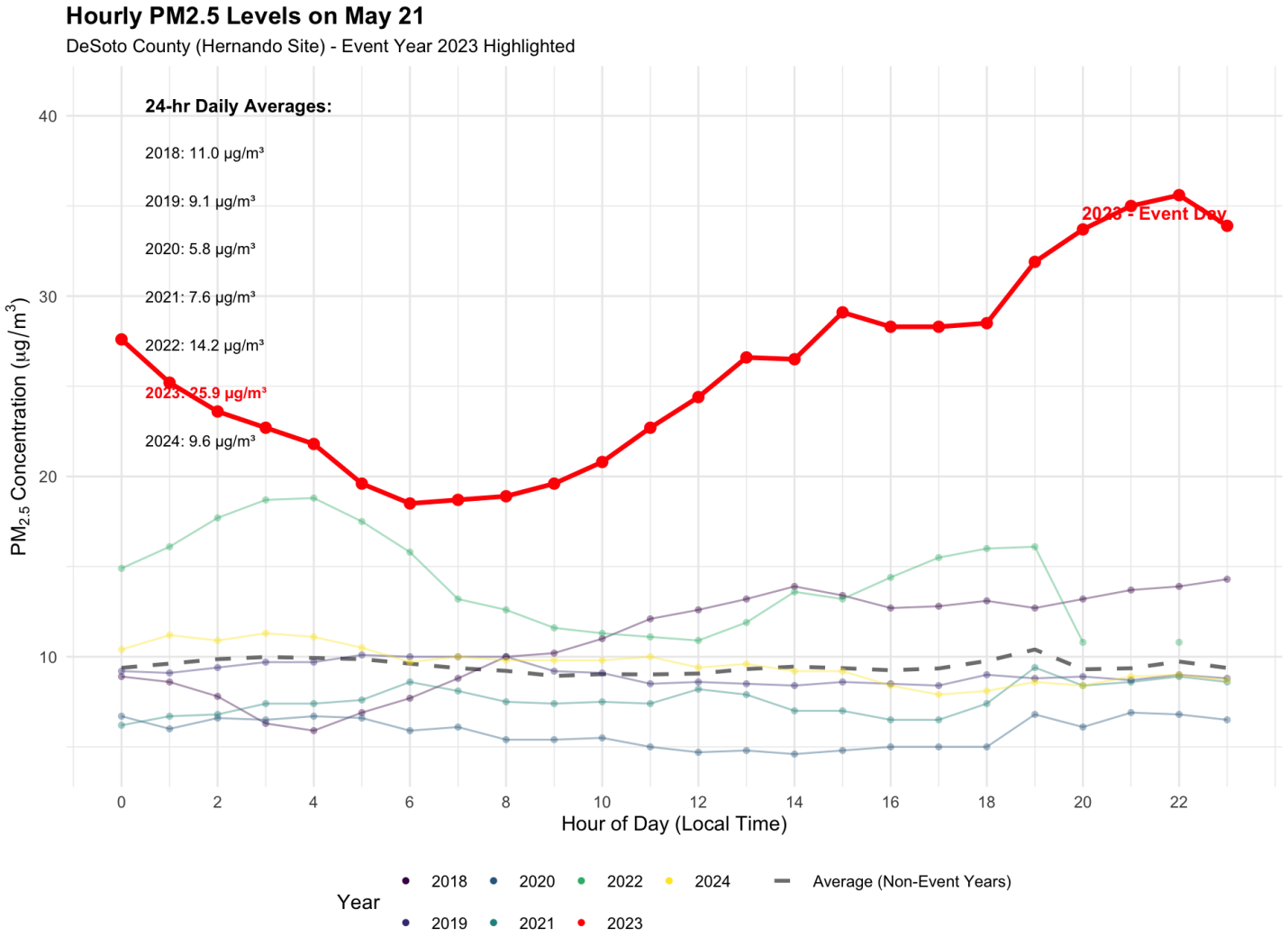
00z surface analysis from May 22nd (May 21st, 2023, at 7PM CDT), showing High-Pressure to the left of the Midsouth, resulting in northerly flow following previous days frontal passages, transporting Canadian wildfire smoke over the area.



The AirNow-Tech Navigator image from May 21st, 2023, shows ongoing wildfires in northwestern Canada, with numerous local PM2.5 sites reading in the "Very Unhealthy" (purple) category. This indicates high surface smoke concentrations near the fire origins. Correspondingly, 72-hour back trajectories confirm that persistent northerly flow, established behind a previous day's cold front, transported this smoke southward into the Midsouth, causing elevated PM2.5 values at the Hernando monitor.

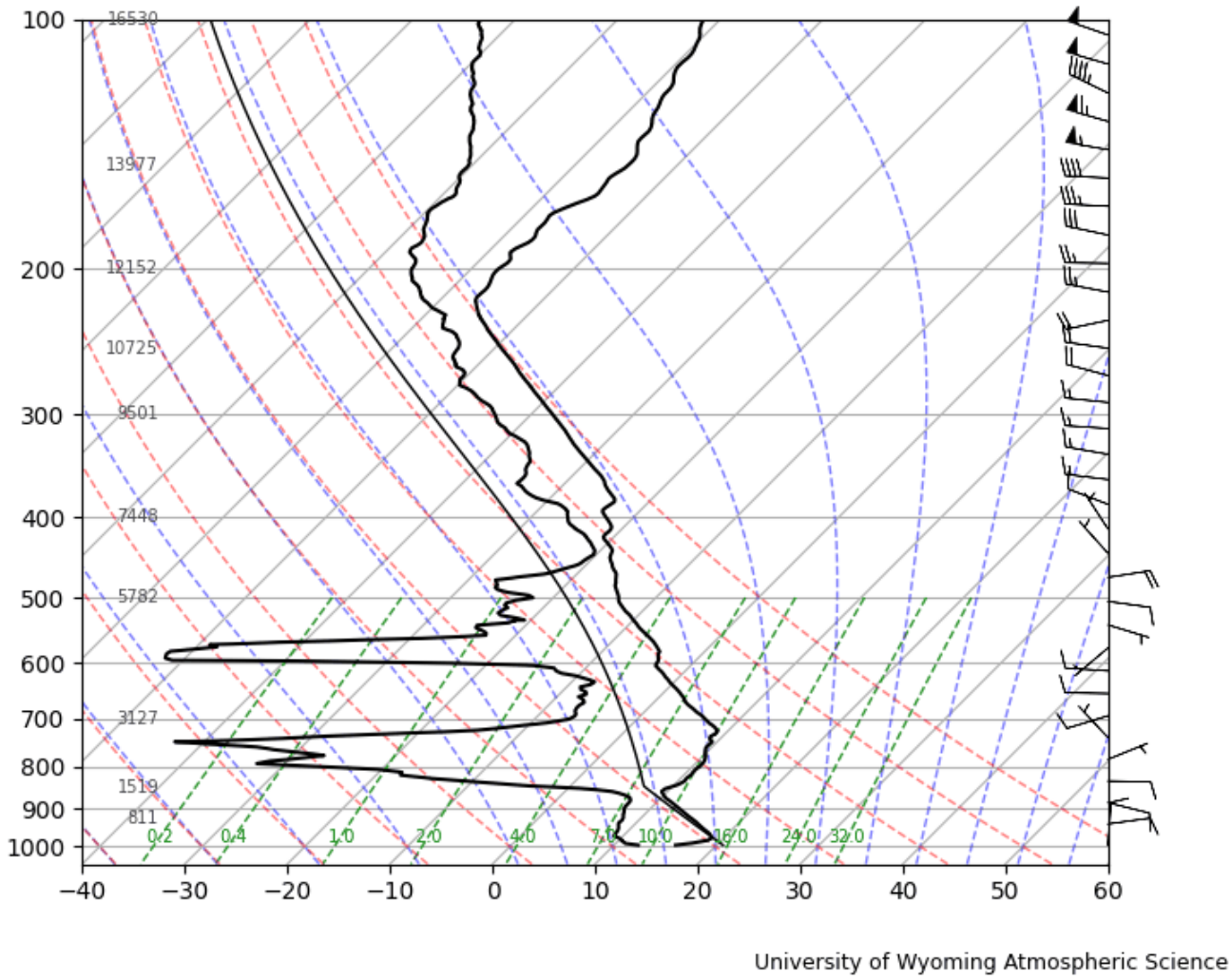
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/21/23	29.5	27.1	25.5	24.6	23.7	21.5	20.4	20.6	19.8	20.5	21.7	23.6	25.3	27.5	27.4	30	29.2	29.2	29.4	32.8	34.6	36.9	37.5	35.8	27.25	37.5

The hourly values at the Hernando monitor in the image above show elevated PM2.5 levels throughout the day in response to thick Canadian smoke shield encompassing the Midsouth, resulting in a 24-hour daily average of 27.25 ug/m^3.

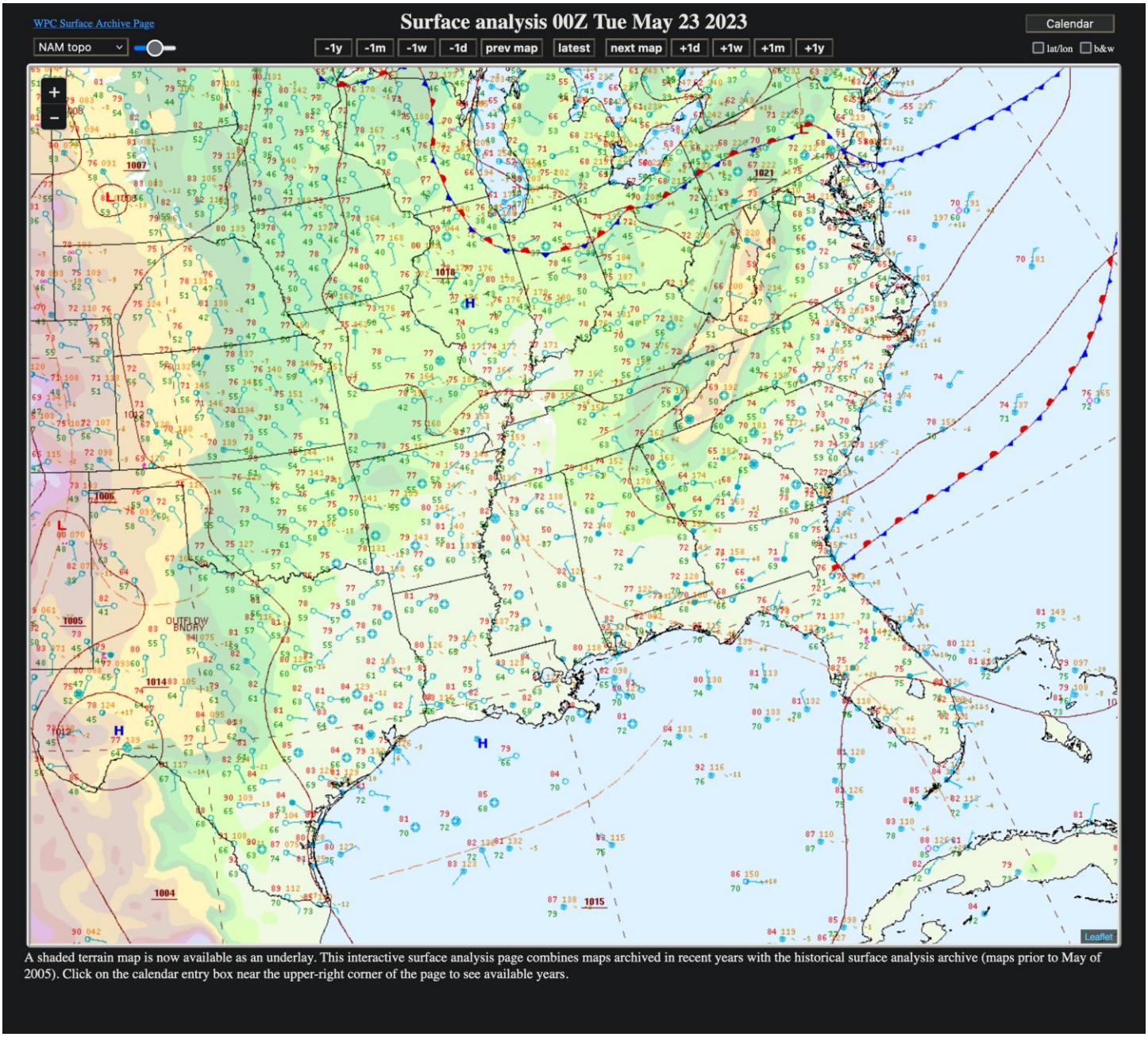


The hourly time series cross-section in the figure above, which shows a seven-year time series of PM2.5 levels, highlights that values in 2023 were significantly higher than in typical years. The elevated concentrations on this day were a direct result of a smoke-laden Canadian air mass being advected to the Hernando monitor by northerly winds that were established after a cold frontal passage.

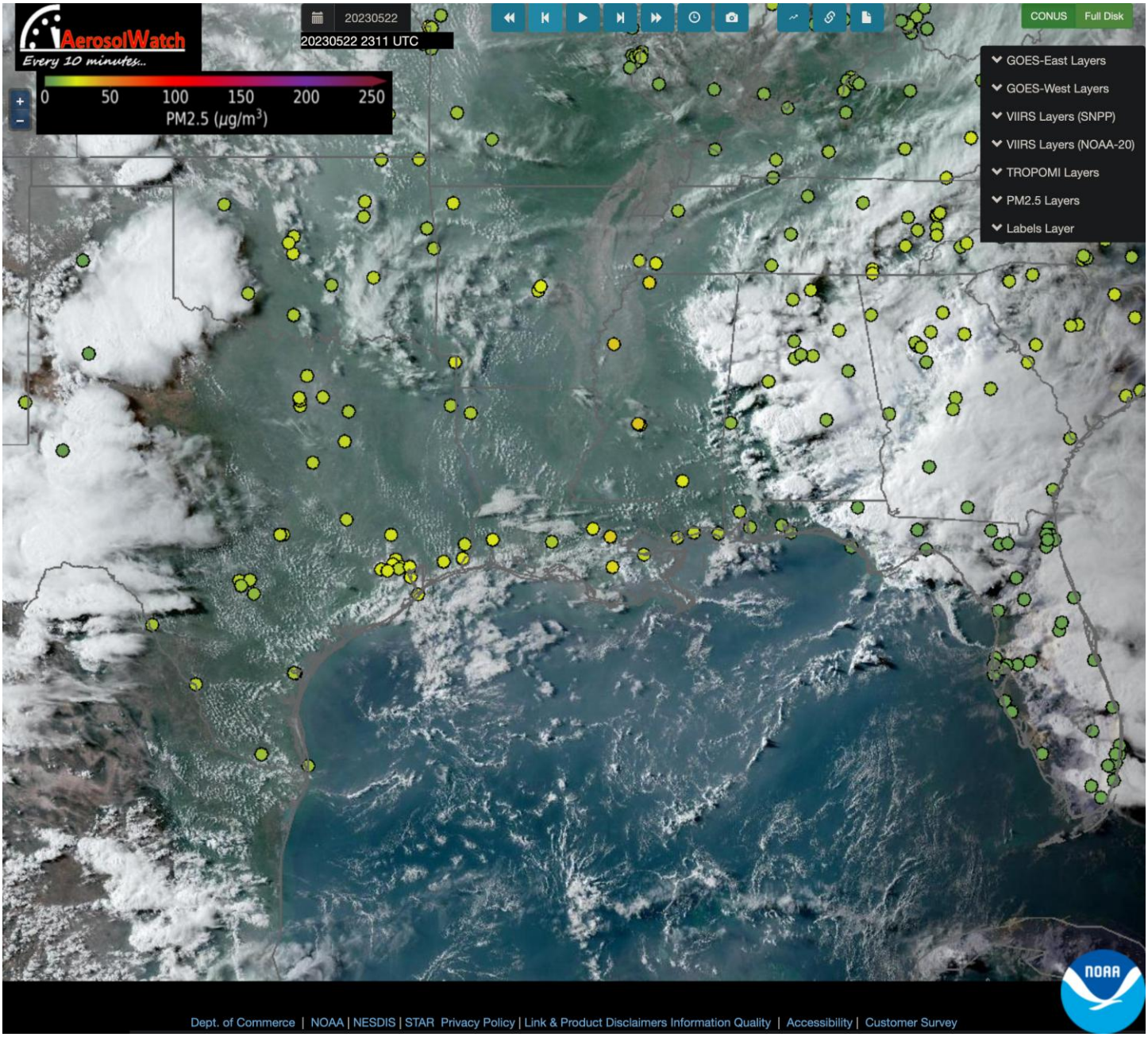
May 22nd: On May 22nd, the region remained under a dominant surface High-Pressure system, which produced light, variable winds and widespread atmospheric stagnation. This setup effectively trapped the pre-existing Canadian smoke plume over the Midsouth throughout the day. The same conditions promoted the formation of a robust nocturnal inversion on the night of May 21st-22nd, further trapping smoke near the surface and causing PM2.5 concentrations to increase overnight.



Morning sounding on May 22nd, 2023, from Little Rock, shows low level nocturnal inversion that set up overnight trapping smoke near the surface, increasing PM2.5 concentrations at the Hernando monitor.



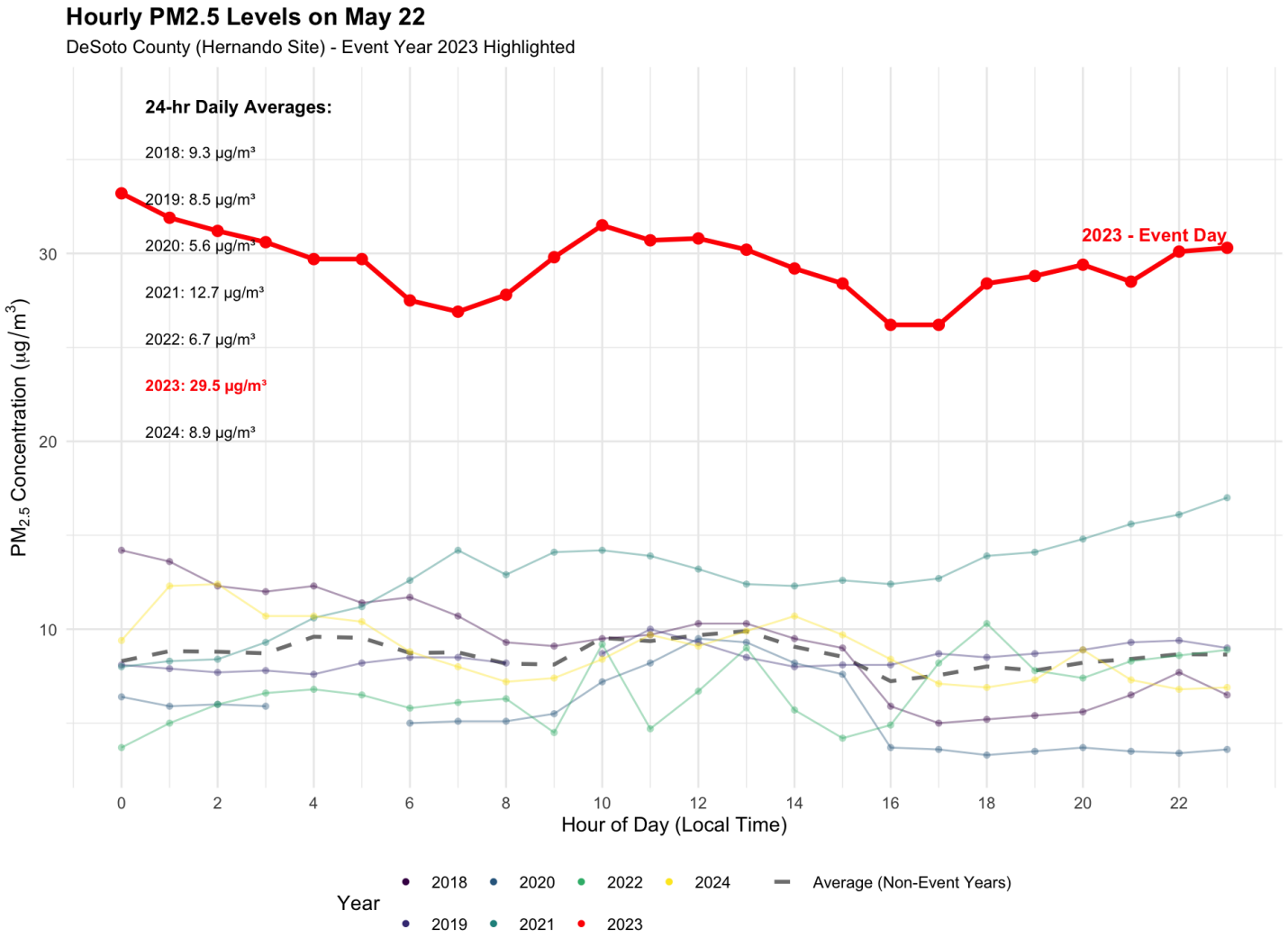
00z surface analysis, Tuesday May 23rd, (Monday May 22nd, 2023, at 7PM CDT), showing High-Pressure leading to stagnant conditions across the Midsouth.



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

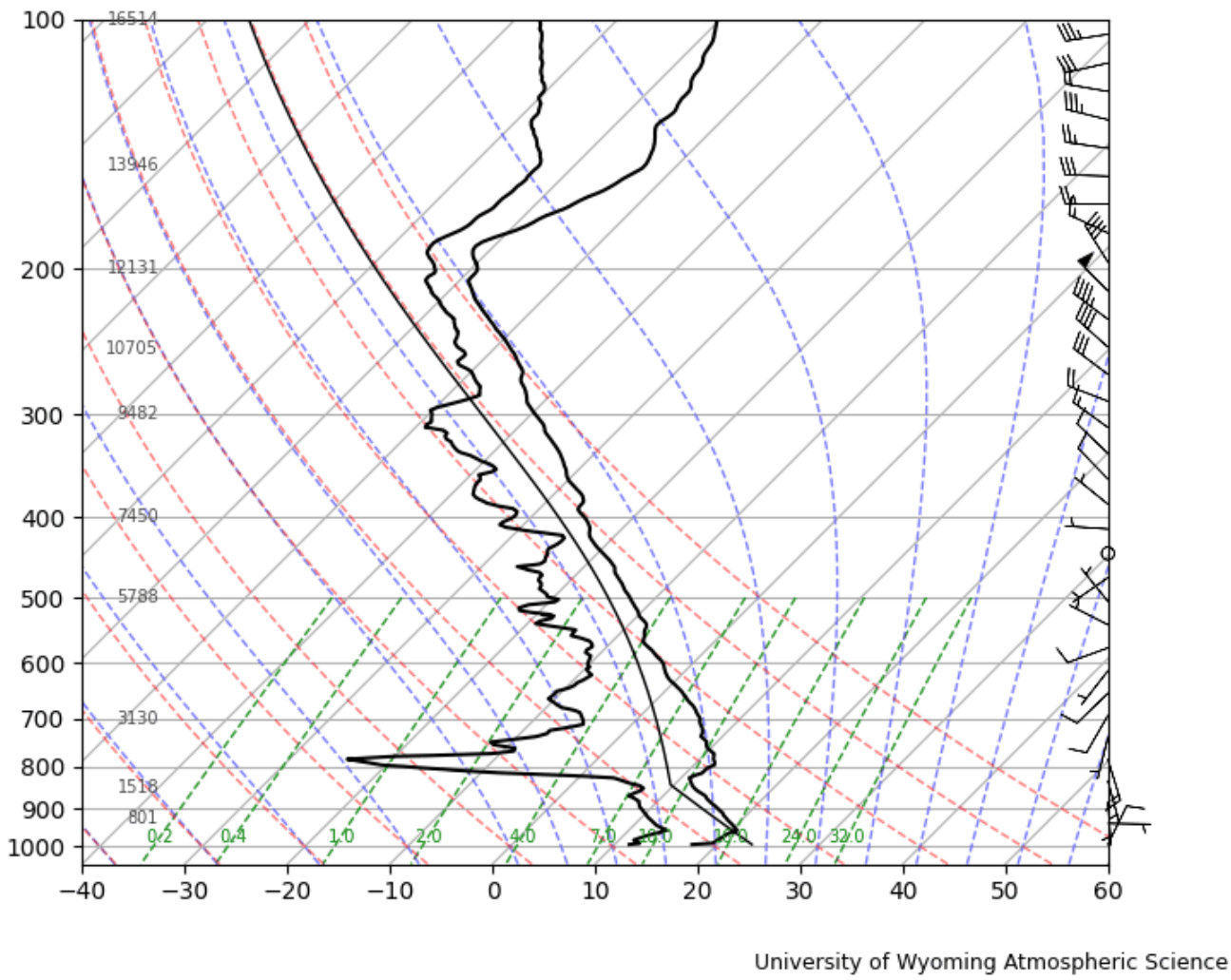
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/22/23	35.1	33.8	33.1	32.5	31.6	31.6	29.4	28.8	28.7	30.7	32.4	31.6	31.7	31.1	30.1	29.3	27.1	27.1	29.3	29.7	30.3	29.4	31	31.2	30.69	35.1

The hourly values at the Hernando monitor in the image above show elevated PM2.5 levels throughout the day on the 23rd, in response to thick Canadian smoke shield encompassing the Midsouth, resulting in a 24-hour daily average of 30.69 ug/m^3.

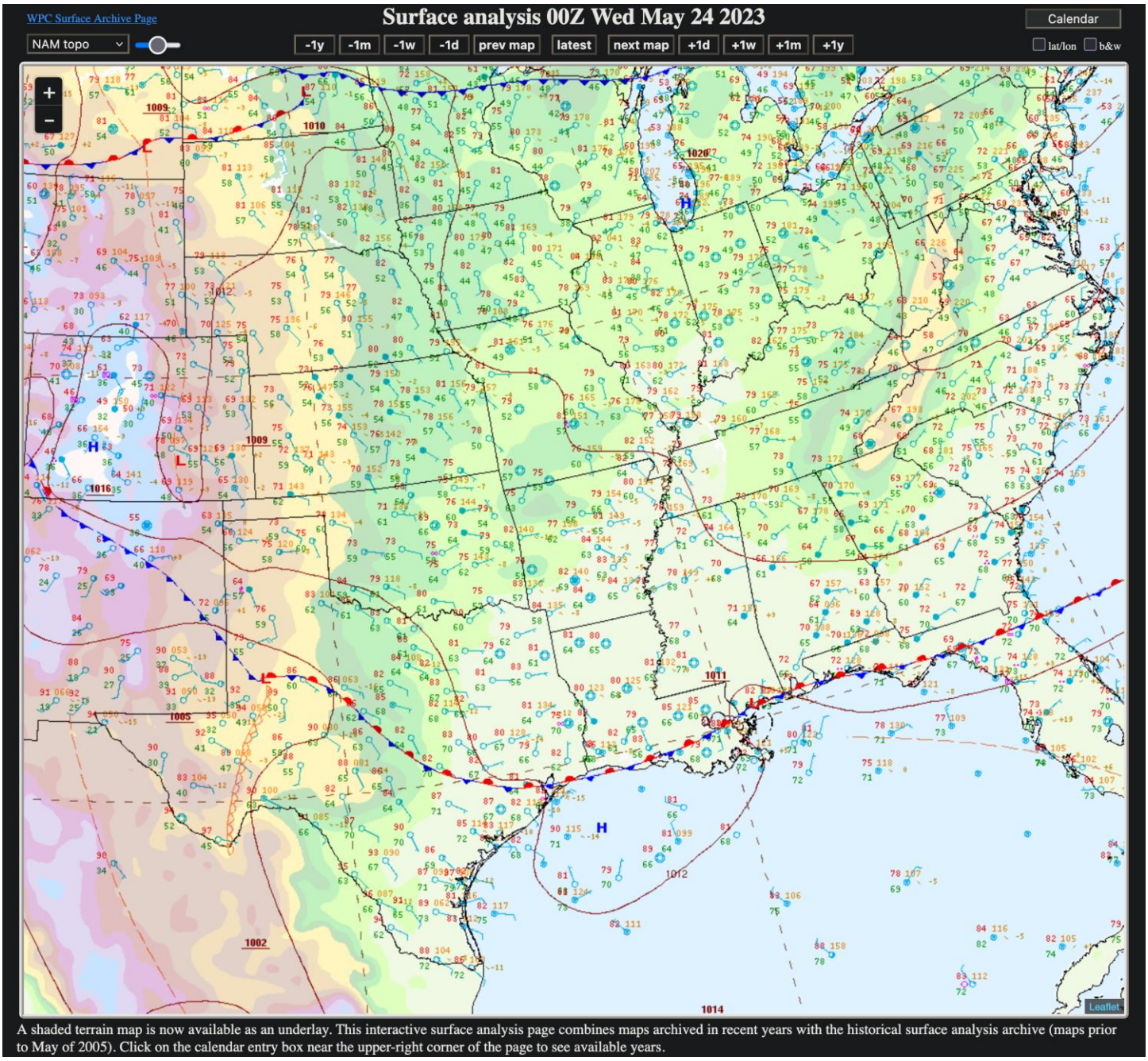


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian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

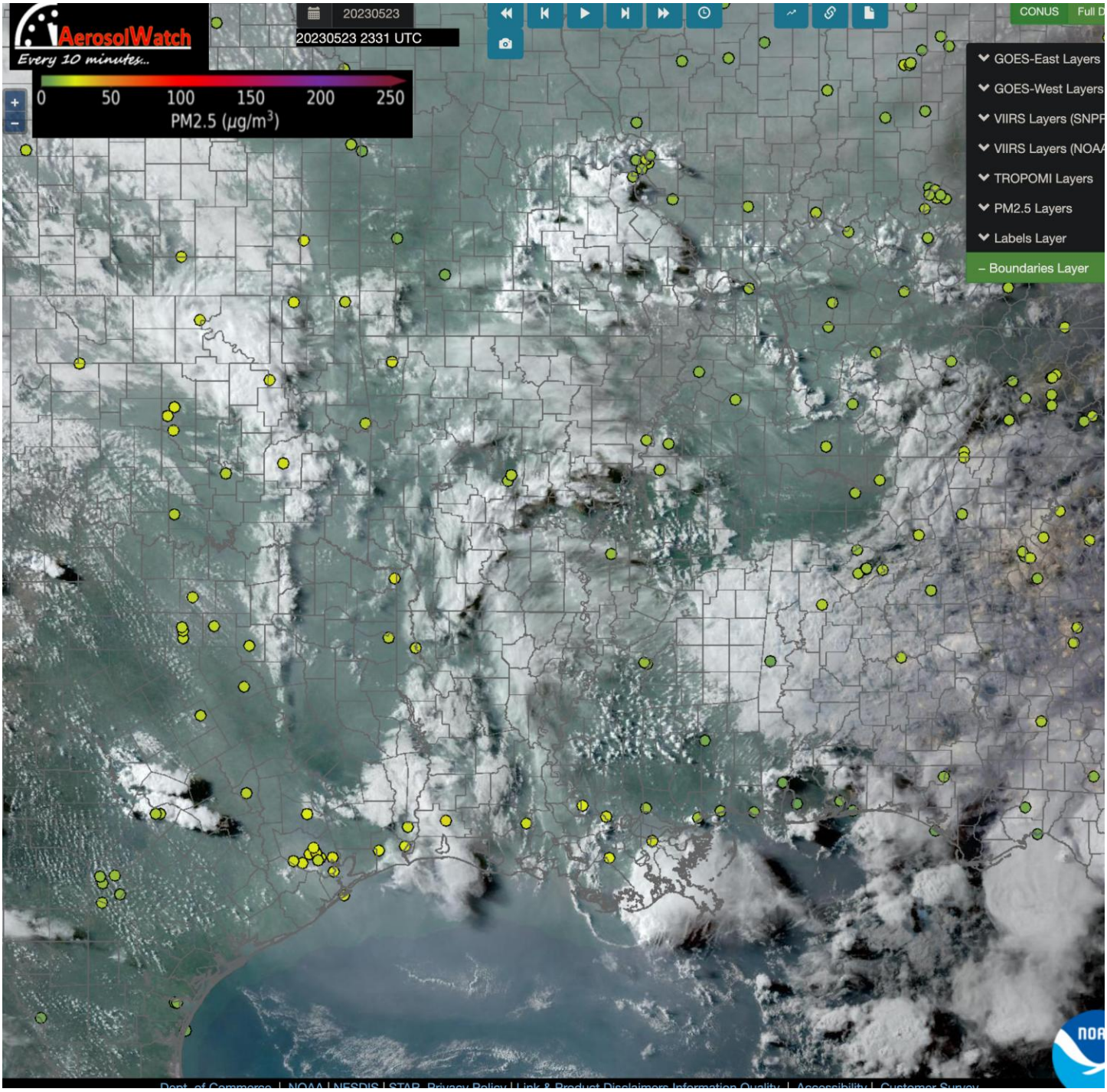
May 23rd: On May 23rd, air quality remained poor due to persistent atmospheric stagnation, although smoke concentrations were not as high as on preceding days. PM2.5 values were consistently elevated in the mid-to-upper teens (µg/m^3) as a dominant High-Pressure system inhibited the dispersion of the residual Canadian smoke plume. This effect was amplified during the night of May 22nd – 23rd by the formation of a frontal inversion along a weak boundary, which trapped pollutants near the surface and led to a subsequent increase in PM2.5 concentrations.



Morning sounding on May 23rd, 2023, from Little Rock, shows low level frontal inversion that set up overnight trapping smoke near the surface, increasing PM2.5 concentrations at the Hernando monitor.



By the evening of May 23rd (00Z May 24th), the weakening surface High-Pressure allowed for the onset of an easterly/southeasterly flow across the Midsouth. Although this provided some minor ventilation, PM2.5 concentrations remained elevated as the region was still situated within the same stagnant Canadian smoke airmass.

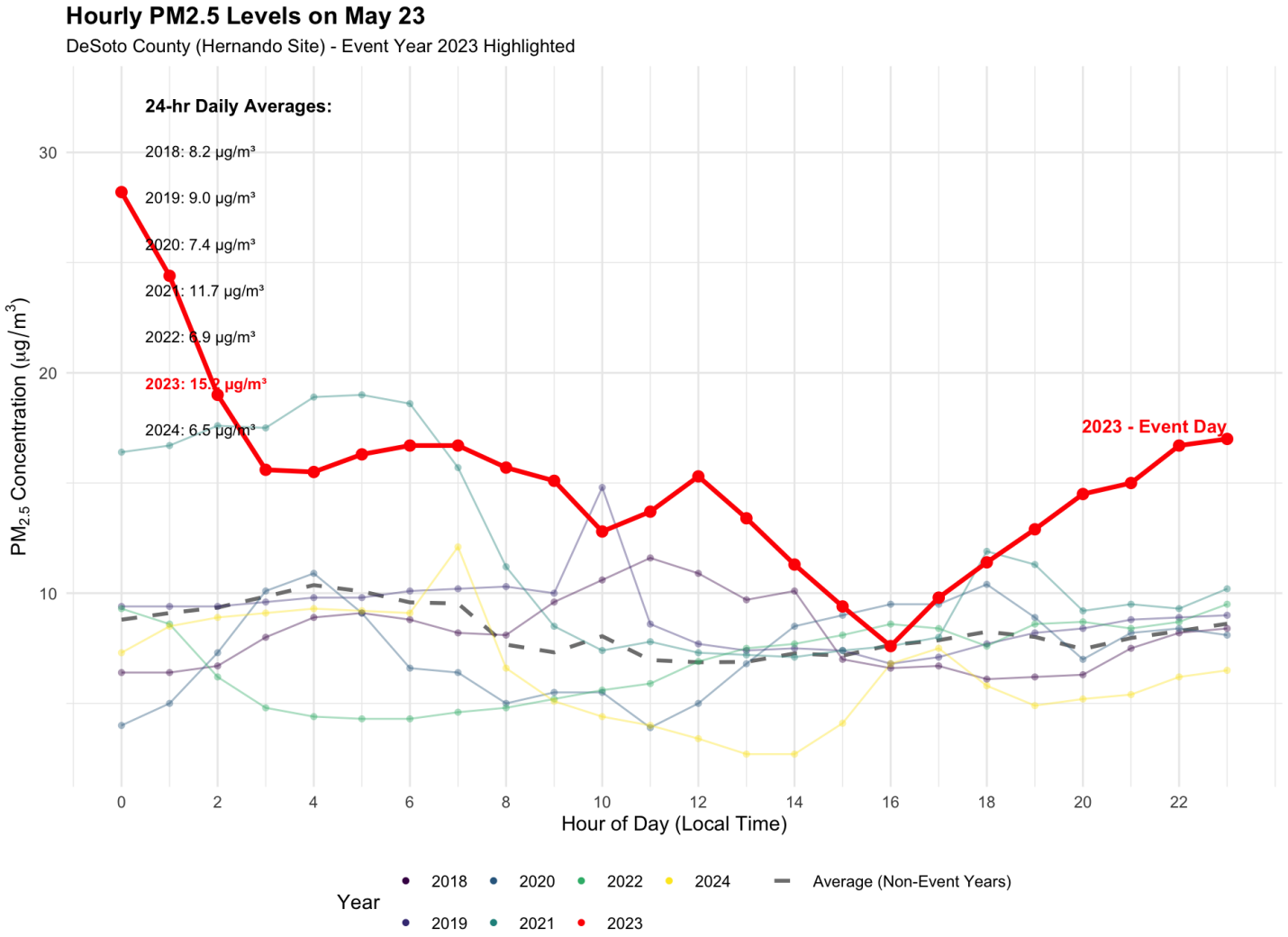


GOES East True Color image taken on May 23rd, 2023, at 2331UTC, showing residual smoke shield covering the Midsouth that was transported southward from Canadian wildfires.

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
HERNANDO/280330002/PM2.5-88101/3	05/23/23	30.1	26.3	20.9	17.5	17.4	18.2	17.6	17.6	16.6	16	13.7	14.6	16.2	14.3	12.2	10.3	8.5	10.7	12.3	13.8	15.4	16.9	18.6	18.9	16.44	30.1

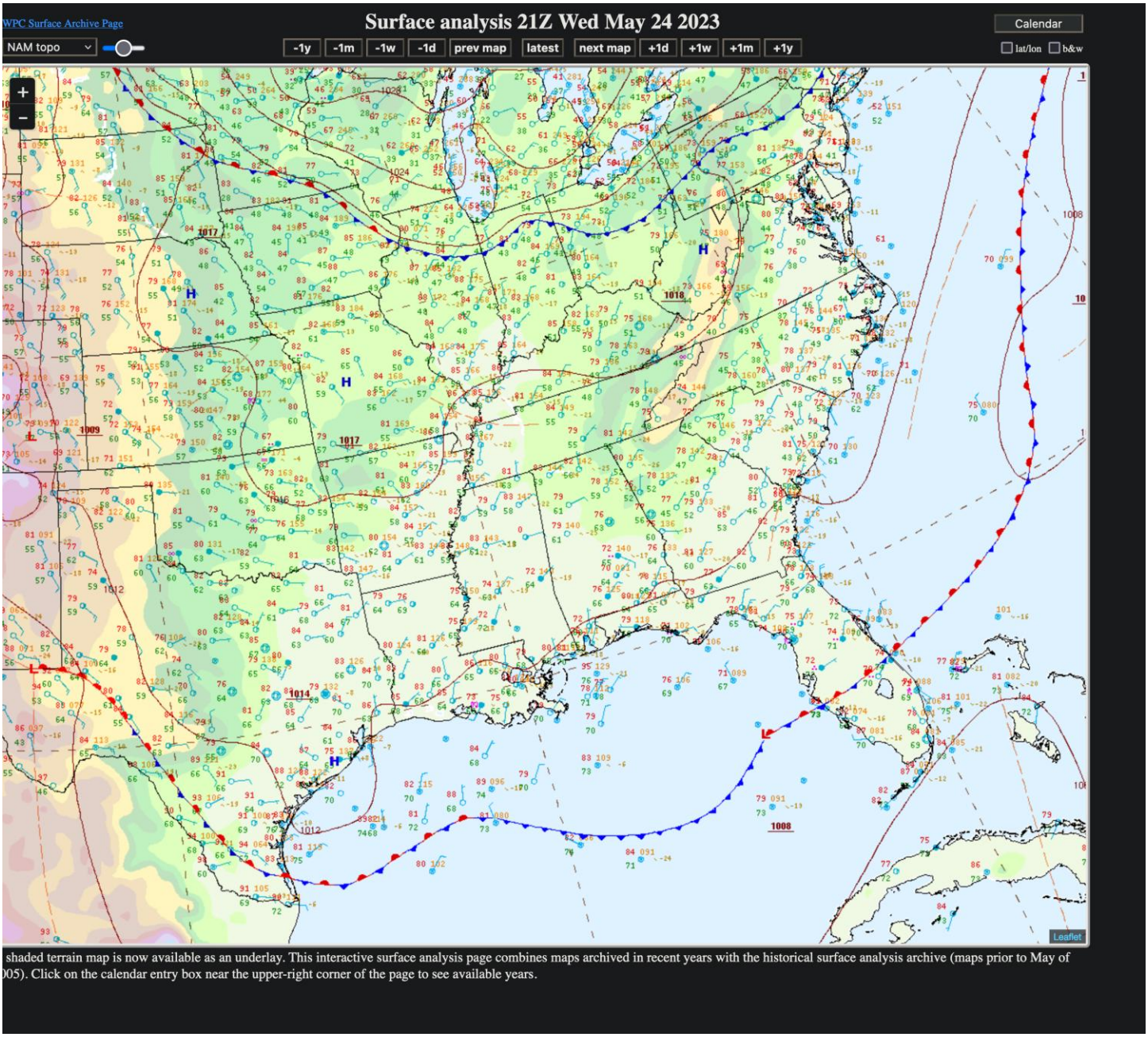
The hourly values from the Hernando monitor shows PM2.5 levels were highest during the morning due to the aforementioned frontal inversion, which trapped smoke near the surface. As daytime heating increased atmospheric mixing, concentrations fell into the teens and eventually below 10 µg/m^3 by late afternoon. However,

levels began to climb again in the evening with the formation of a nocturnal inversion, resulting in a 24-hour daily average of 16.44 µg/m^3.

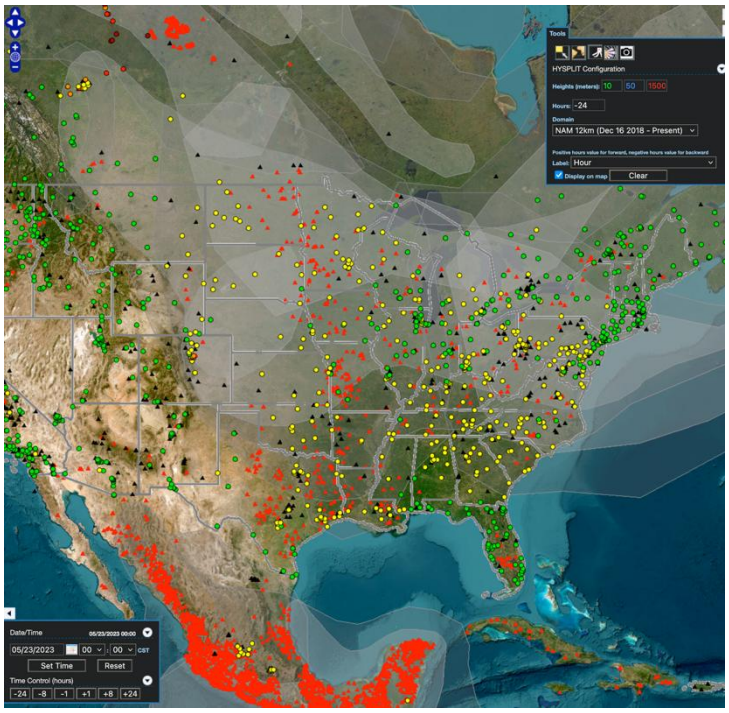


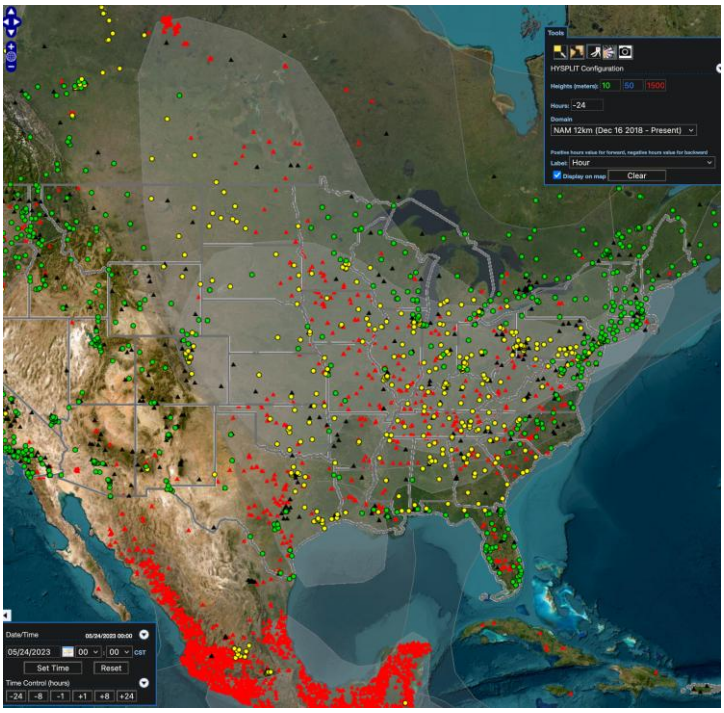
The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian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

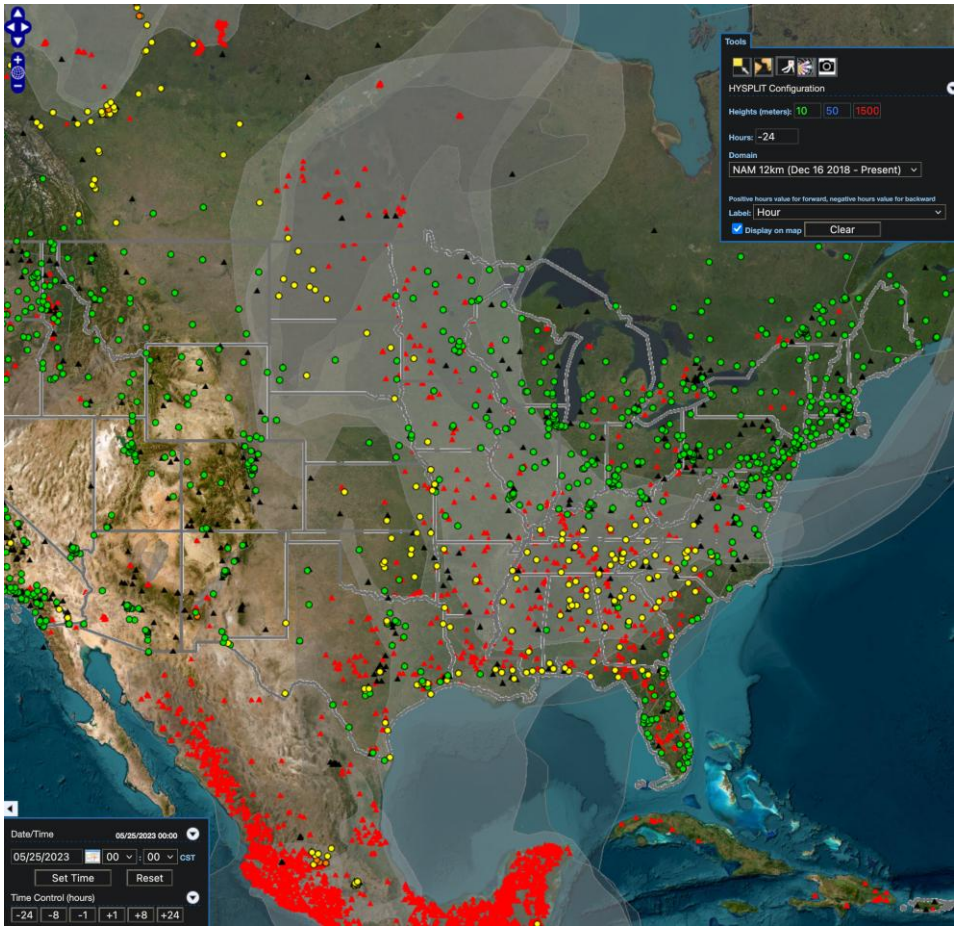
May 24th: By May 24th, a surface High-Pressure system located in the upper Midwest began moving southward into the Mid-Mississippi Valley. This High-Pressure system, moving southeastward, aided in transporting a new wave of Canadian wildfire smoke across the Midwest and Ohio River Valley into the Midsouth, raising PM2.5 levels at the Hernando monitor.



21z surface analysis (May 24th, 2023, at 4PM CDT), showing High-Pressure located over Missouri, moving, southward, issuing in new batch of Canadian wildfire smoke into the Midwest, Ohio River Valley, and Midsouth.

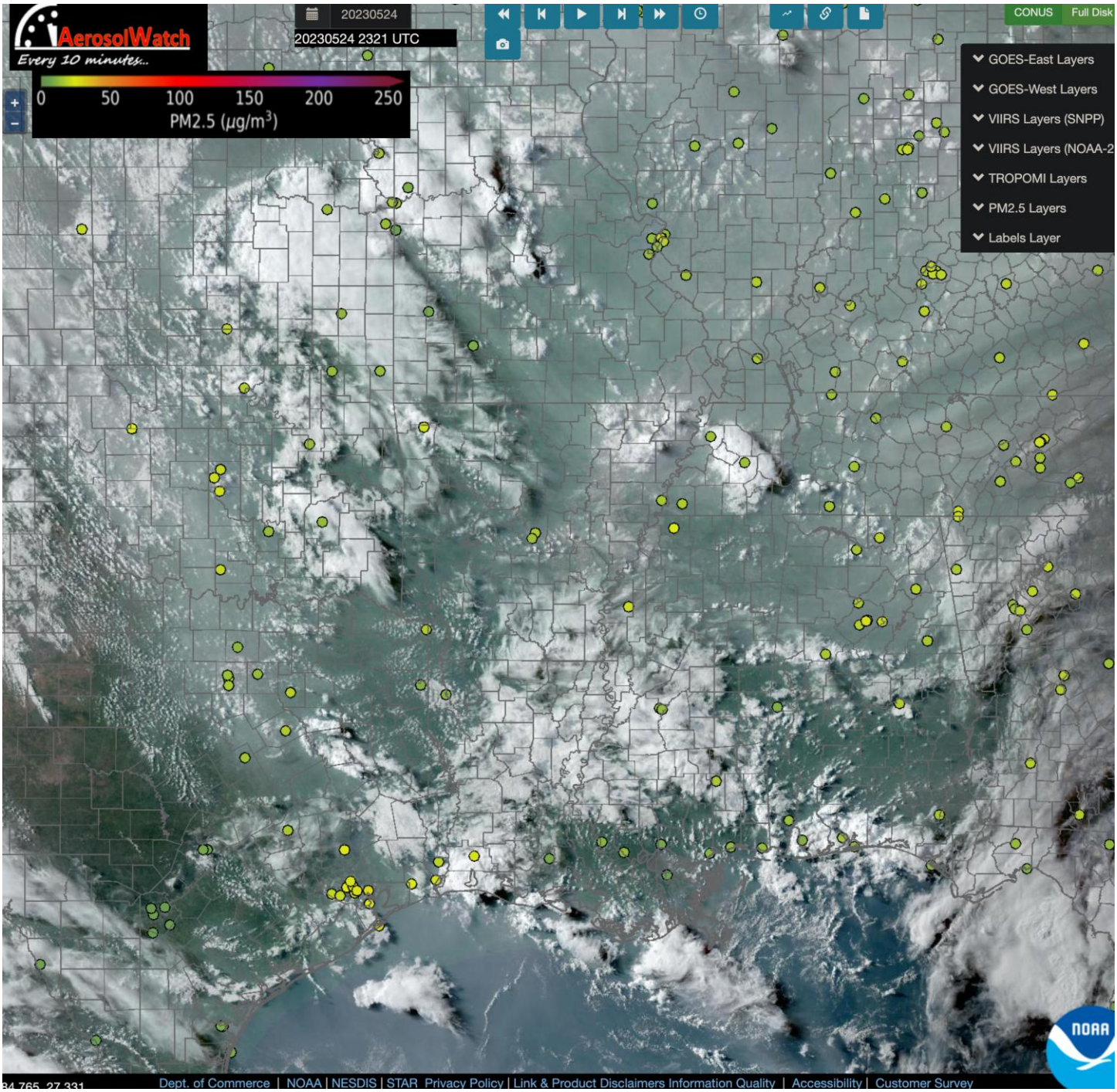






Recap of a Series of AirNowTech Navigator image taken from May 23rd, 2023, through May 25th, 2023, show the progression of smoke from the Canadian wildfires, into the eastern 2/3rds of the United States. Transport of the smoke into the United States was aided by persistent Upper-Level troughing, and a reinforcing surface High-

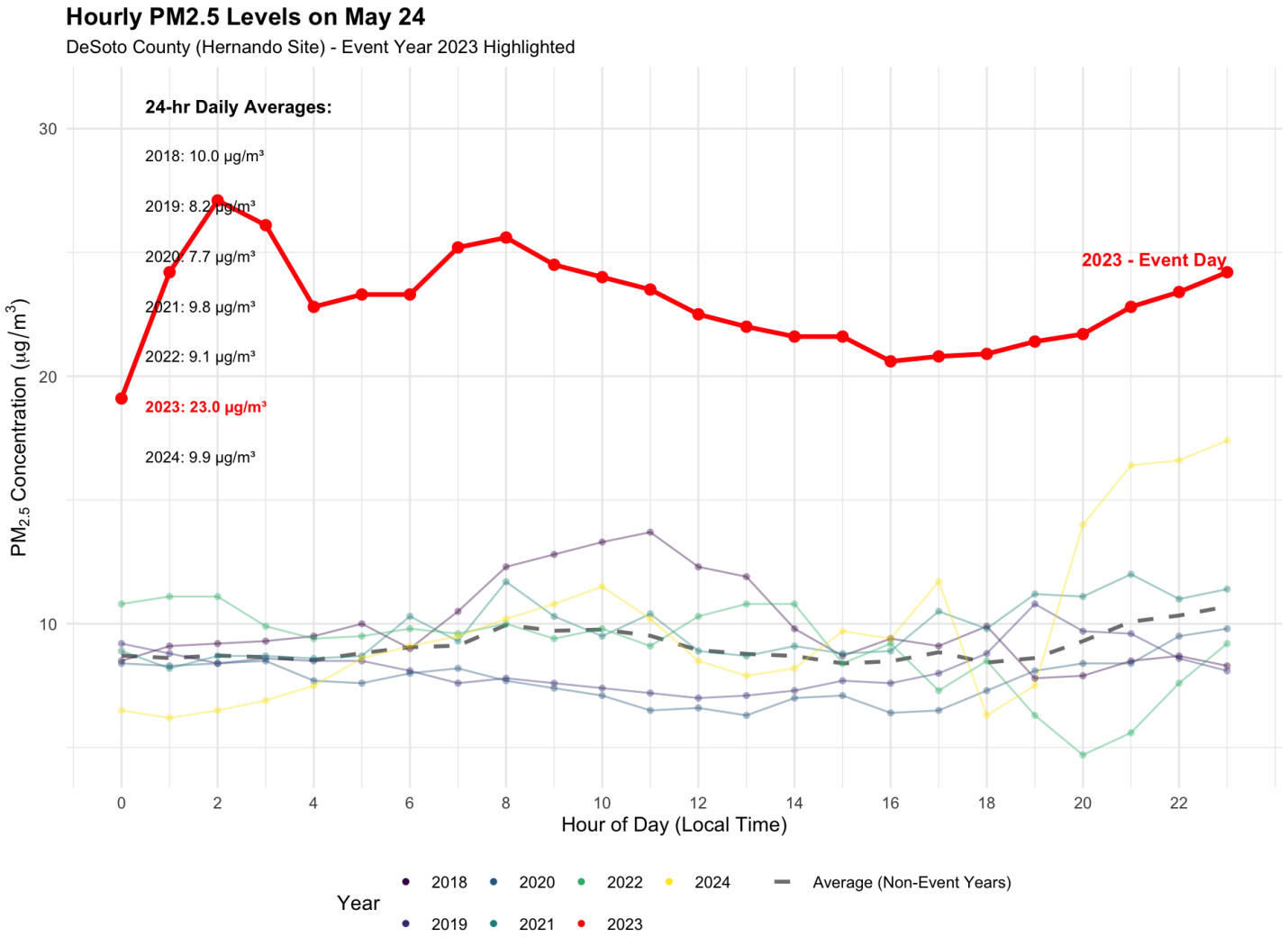
Pressure dropping into the Midsouth from the upper Midwest helping transport smoke from the Canadian wildfires, deep into the United States, increasing PM2.5 values.



The GOES-East True Color image from 2321 UTC on May 24, 2023, shows a reinforced smoke plume moving into the Midsouth from the Upper Midwest. This new batch of Canadian wildfire smoke was transported by a combination of an upper-level trough and a surface High-Pressure system, causing PM2.5 values to become elevated at the Hernando monitor.

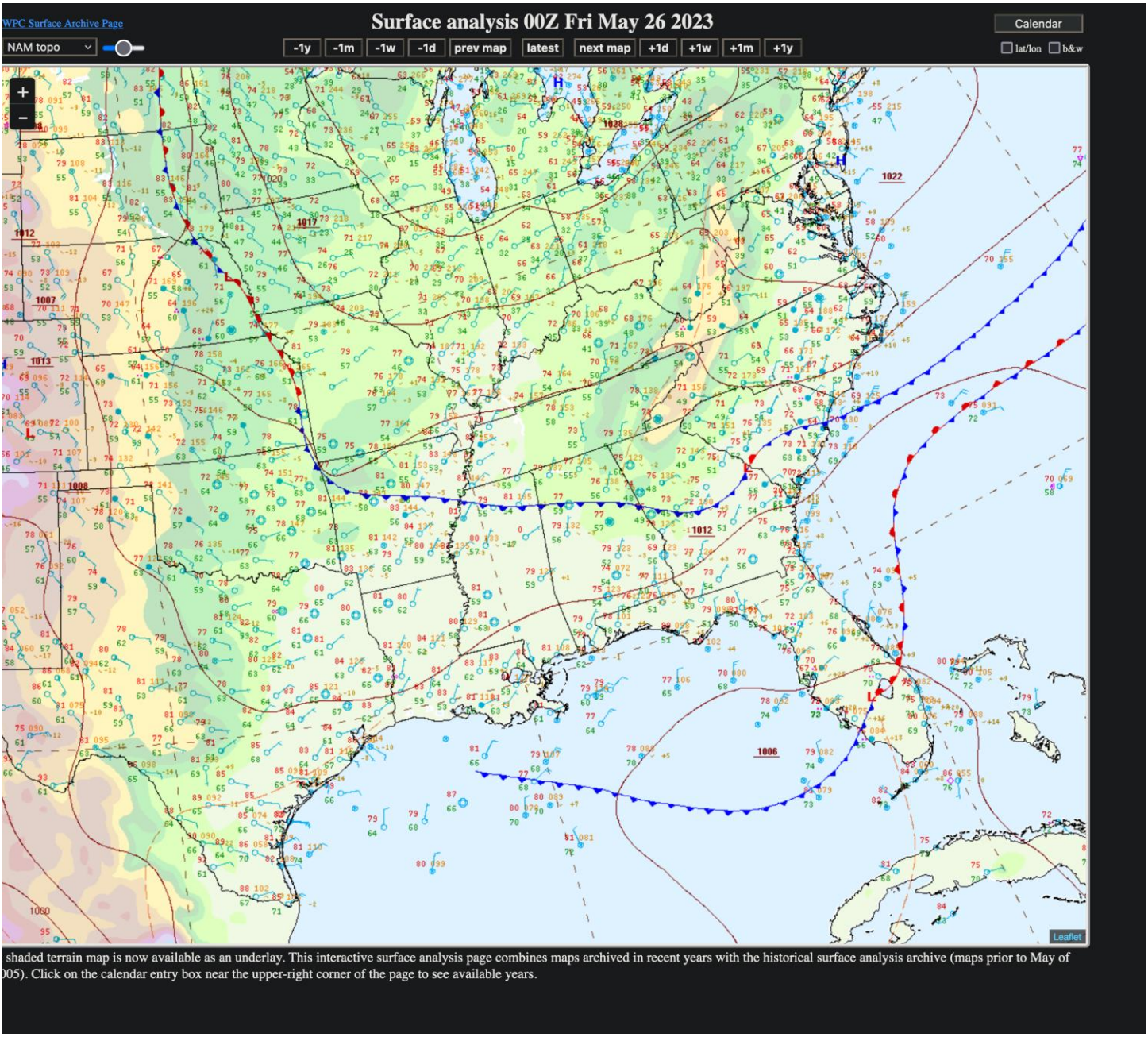
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/24/23	21	26.1	29	28	24.7	25.2	25.2	26.1	26.5	25.4	24.9	24.4	23.4	22.9	22.5	22.5	21.5	21.7	21.8	22.3	22.6	23.7	24.3	25.1	24.2	29

The hourly values at the Hernando monitor in the image above show elevated PM2.5 levels throughout the day in response to thick Canadian smoke shield encompassing the Midsouth, resulting in a 24-hour daily average of 24.2 ug/m^3.

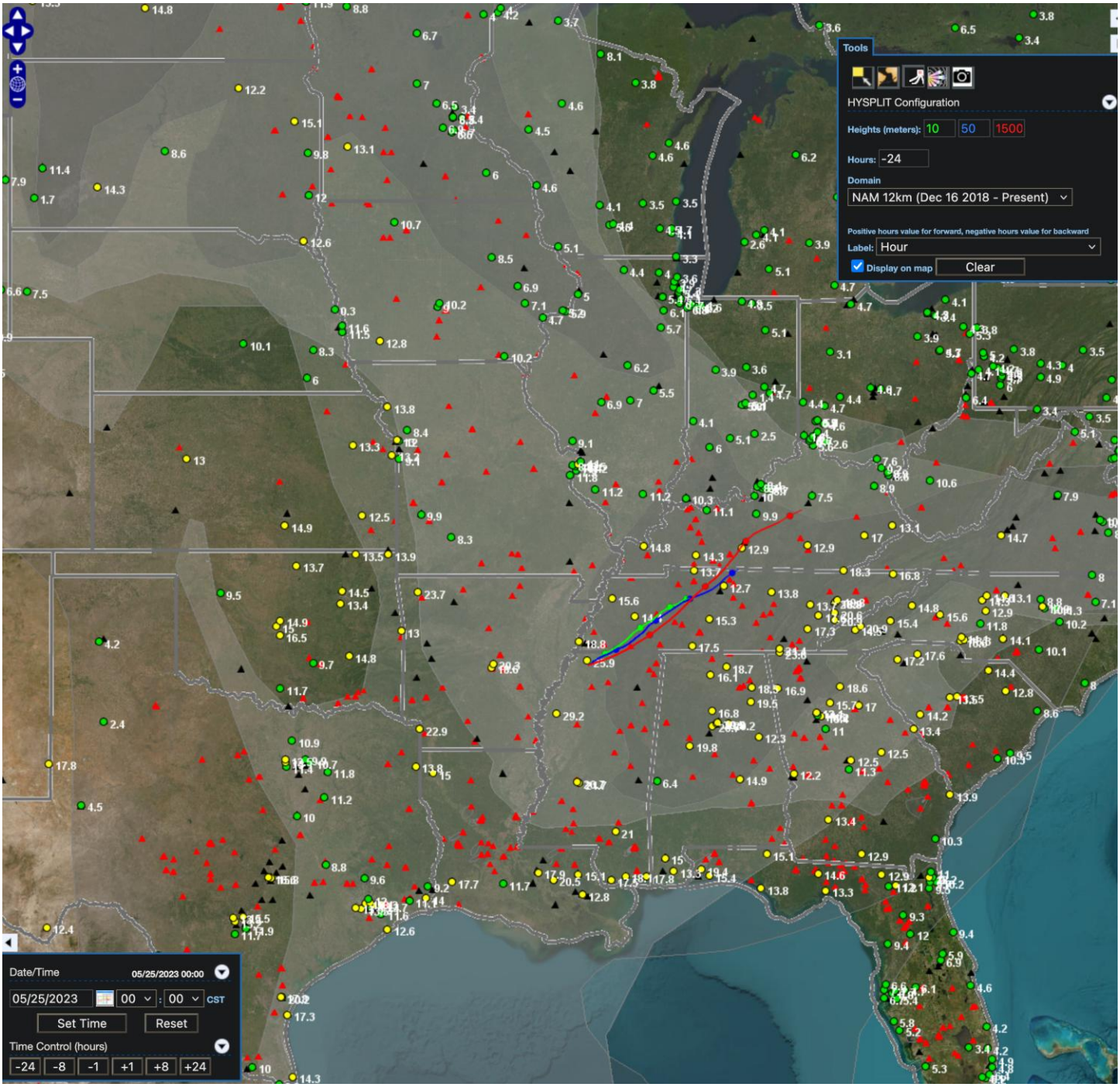


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting the higher values in 2023 compared to the average of non-exceptional years. The hourly time plot shows, elevated PM2.5 concentrations for this day in 2023, as smoke laden Canadian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

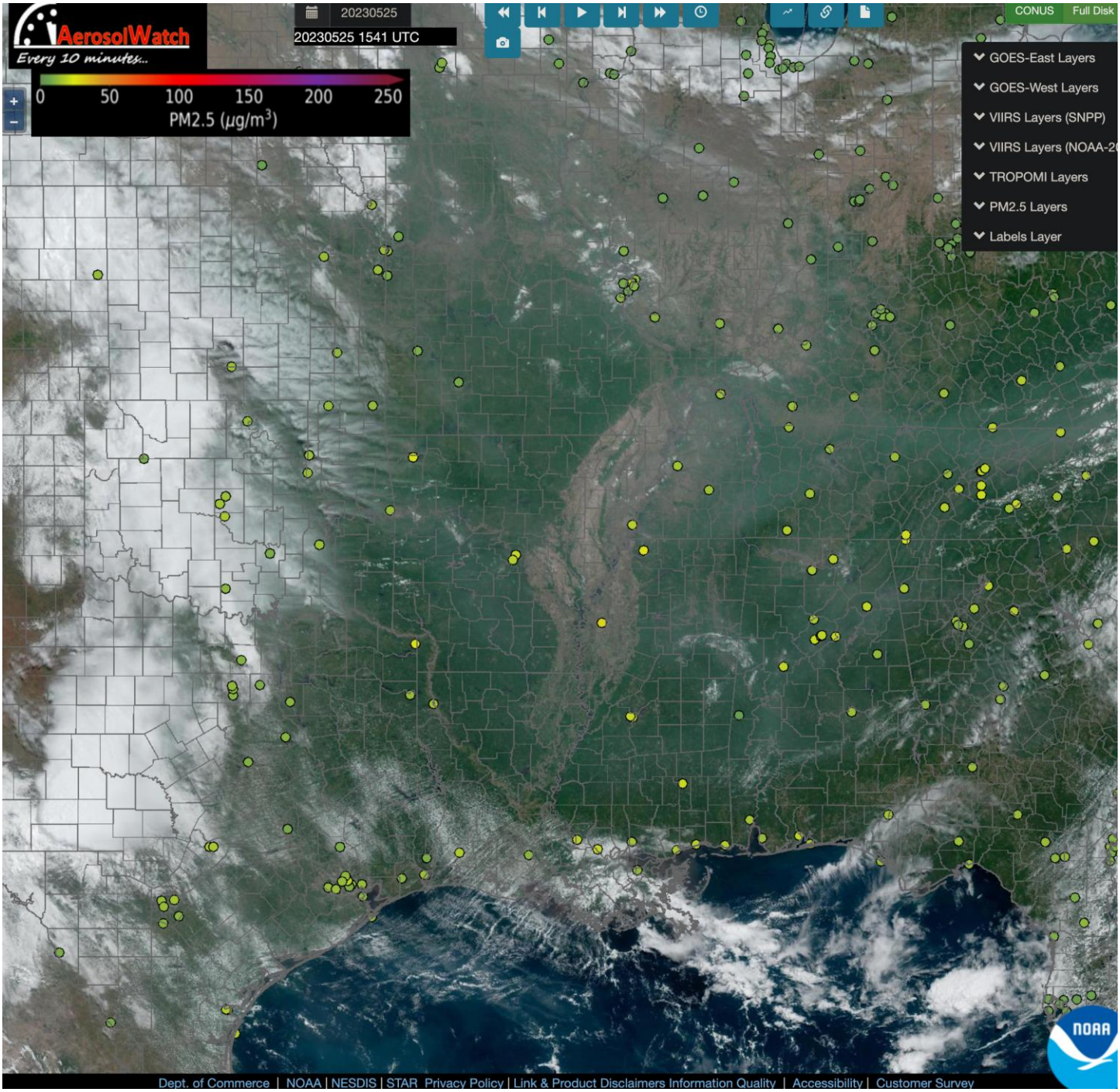
May 25th: On May 25th, an upper-level trough across the Eastern United States helped push a frontal boundary southward into the southeast. Behind this front was a substantial, reinforcing amount of Canadian wildfire smoke, which further elevated PM2.5 levels across the southeast, including at the Hernando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



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



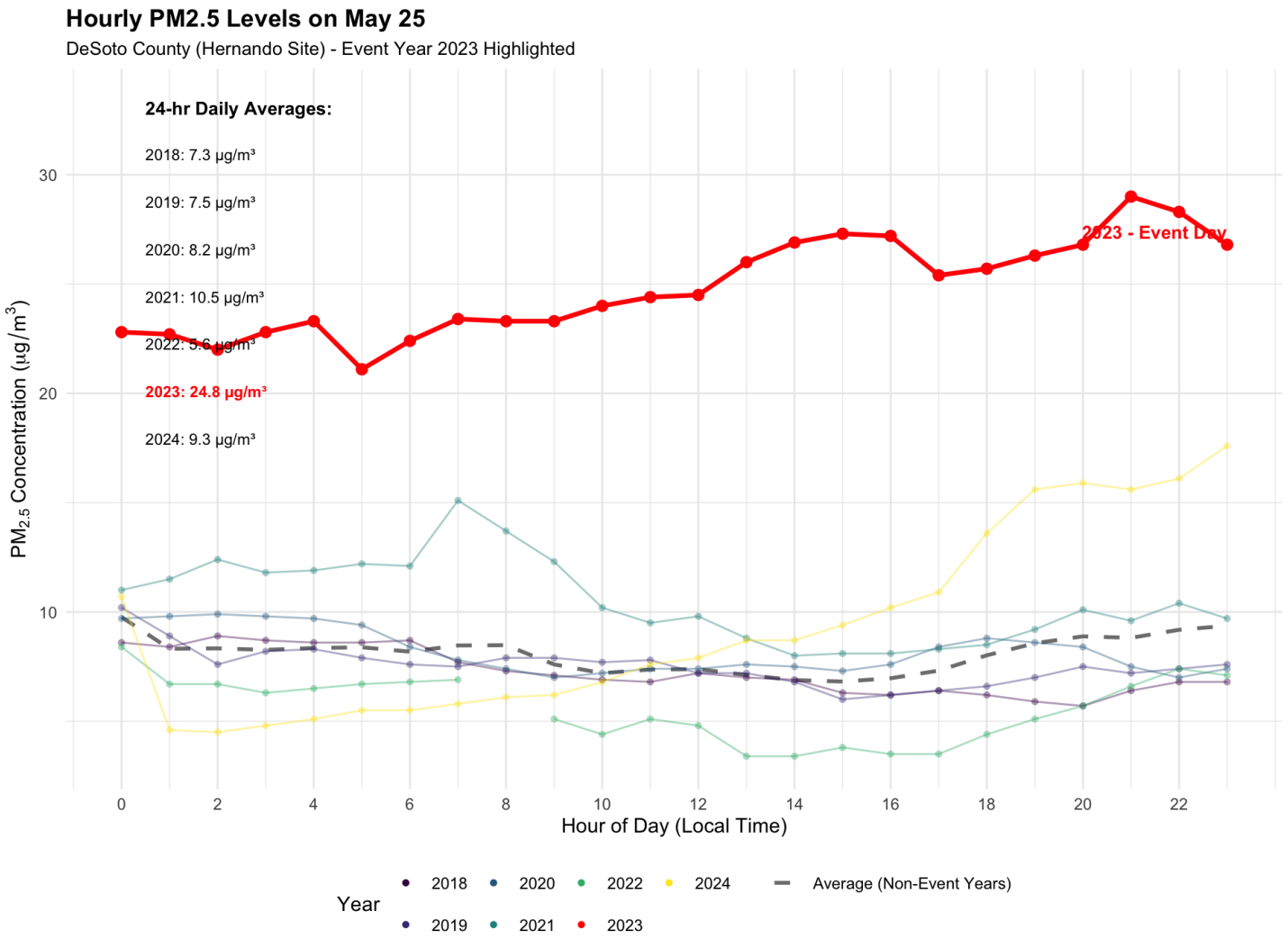
The AirNow-Tech Navigator image from May 25th, 2023, shows a reinforcing Canadian wildfire smoke plume being transported over the Midsouth. The smoke moved from the north, both ahead of and behind the aforementioned frontal boundary, a pathway confirmed by the overlaid 24-hour back trajectories. This transport kept PM2.5 values at the Hernando monitor elevated and well into the "Moderate" category.



The GOES-East True Color image from 1541 UTC on May 25th, 2023, shows a reinforced smoke plume moving into the Midsouth. This new batch of Canadian wildfire smoke was transported by a combination of an upper-level trough and passage from a cold front, causing PM2.5 values to become elevated at the Hernando monitor.

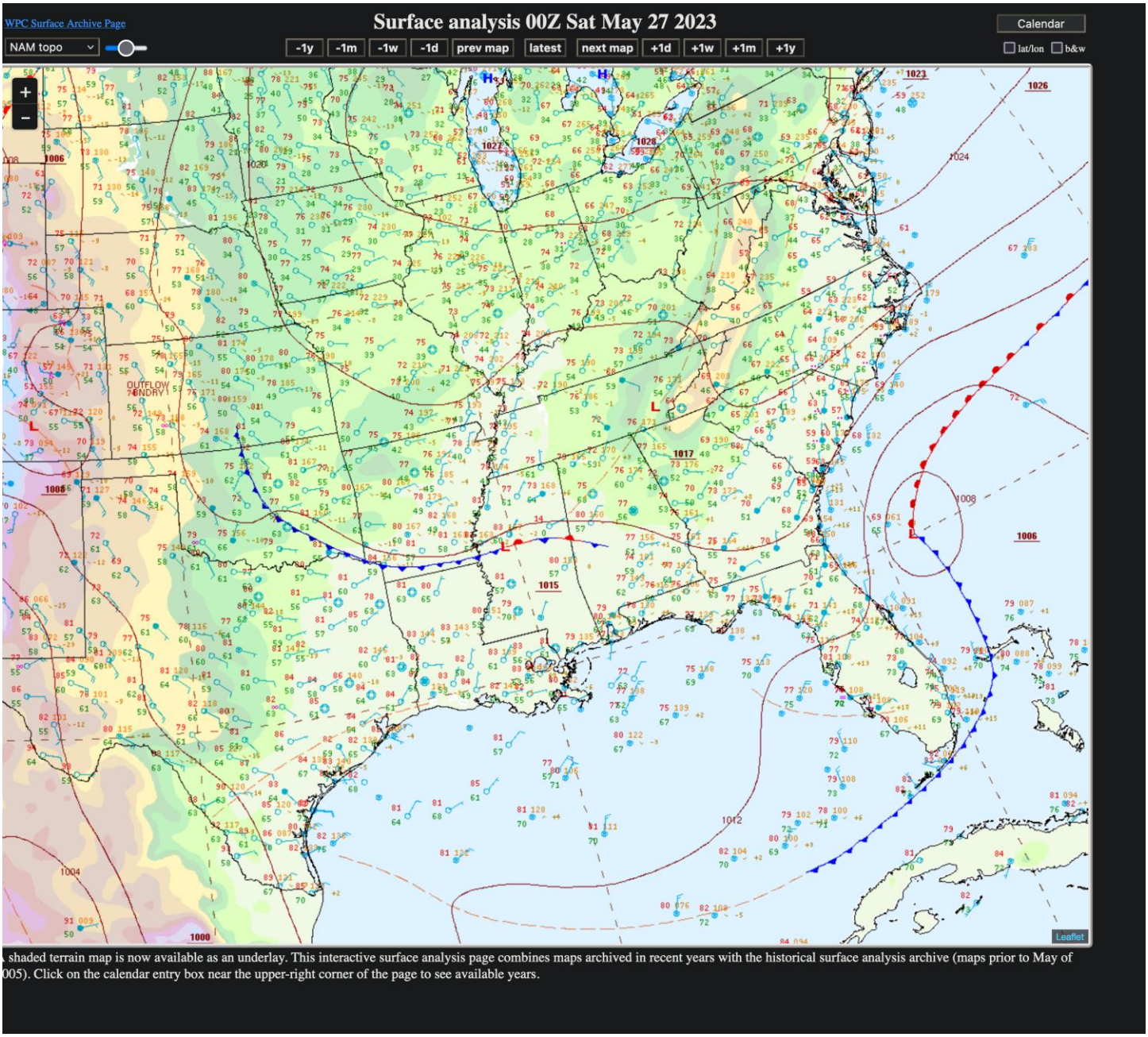
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/25/23	24.7	24.6	23.9	24.7	25.2	23	23.3	24.3	24.2	24.2	24.9	25.3	25.4	26.9	27.8	28.2	28.1	26.3	26.6	27.2	27.7	29.9	29.2	27.7	25.97	29.9

The hourly values at the Hernando monitor in the image above show elevated PM2.5 levels throughout the day in response to thick Canadian smoke shield encompassing the Midsouth, resulting in a 24-hour daily average of 26 ug/m^3.



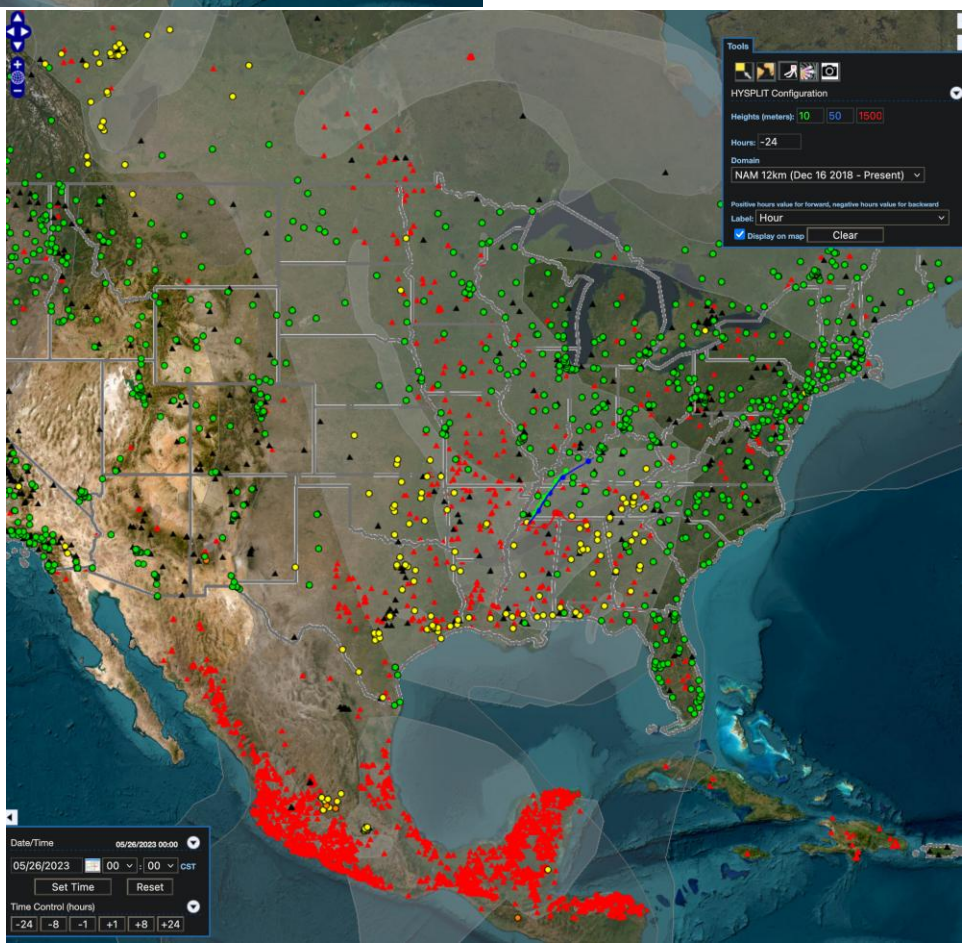
The seven-year hourly time series above illustrate that PM2.5 levels in 2023 were notably higher than in previous, non-exceptional years. This trend is clearly visible on May 25th, when the passage of a cold front transported a fresh batch of Canadian smoke into the area, causing PM2.5 concentrations to become elevated at the Hernando monitor.

May 26th: Two weather systems kept smoke from Canadian wildfires in place over the Midsouth and 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.

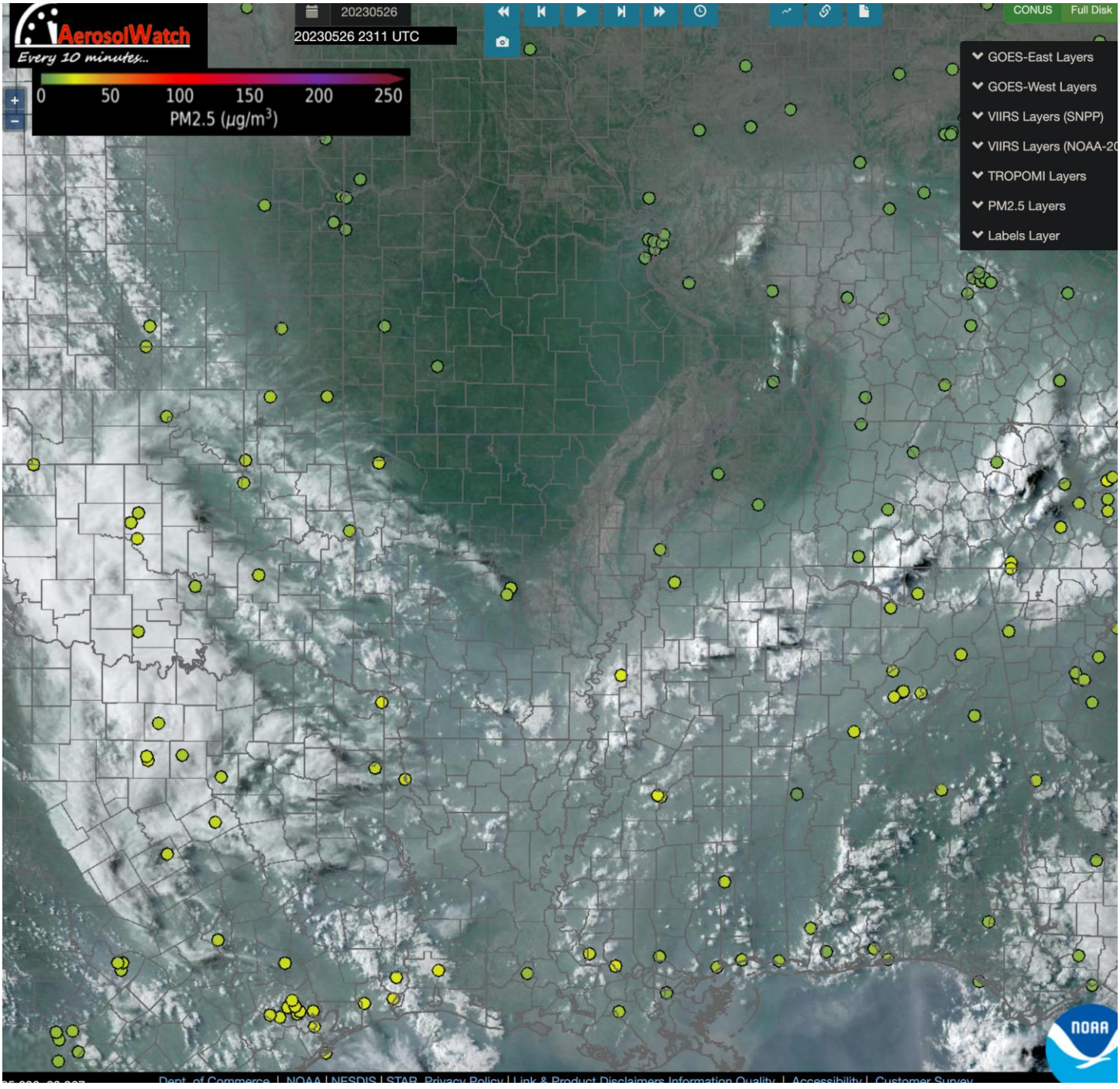


The 00Z surface analysis for May 27th (7 PM CDT) shows an expansive High-Pressure system over the Great Lakes and a Low-Pressure system off the Florida/Georgia coast. This pressure gradient helped steer Canadian wildfire smoke into the Midsouth and Lower Mississippi River Valley. A cold front, guided by this flow, moved through the region during the pre-dawn hours of the 26th, bringing a smoke-laden airmass over the Hernando monitor behind it.


Tools
HYSPLIT Configuration
Heights (meters): 10 50 1500
Hours: -24
Domain
NAM 12km (Dec 16 2018 - Present)
Positive hours value for forward, negative hours value for backward
Label: Hour
Display on map
Clear
Date/Time
05/25/2023 00:00
05/25/2023
00 : 00 CST
Set Time
Reset
Time Control (hours)
-24 -8 -1 +1 +8 +24


Tools
HYSPLIT Configuration
Heights (meters): 10 50 1500
Hours: -24
Domain
NAM 12km (Dec 16 2018 - Present)
Positive hours value for forward, negative hours value for backward
Label: Hour
Display on map
Clear
Date/Time
05/26/2023 00:00
05/26/2023
00 : 00 CST
Set Time
Reset
Time Control (hours)
-24 -8 -1 +1 +8 +24

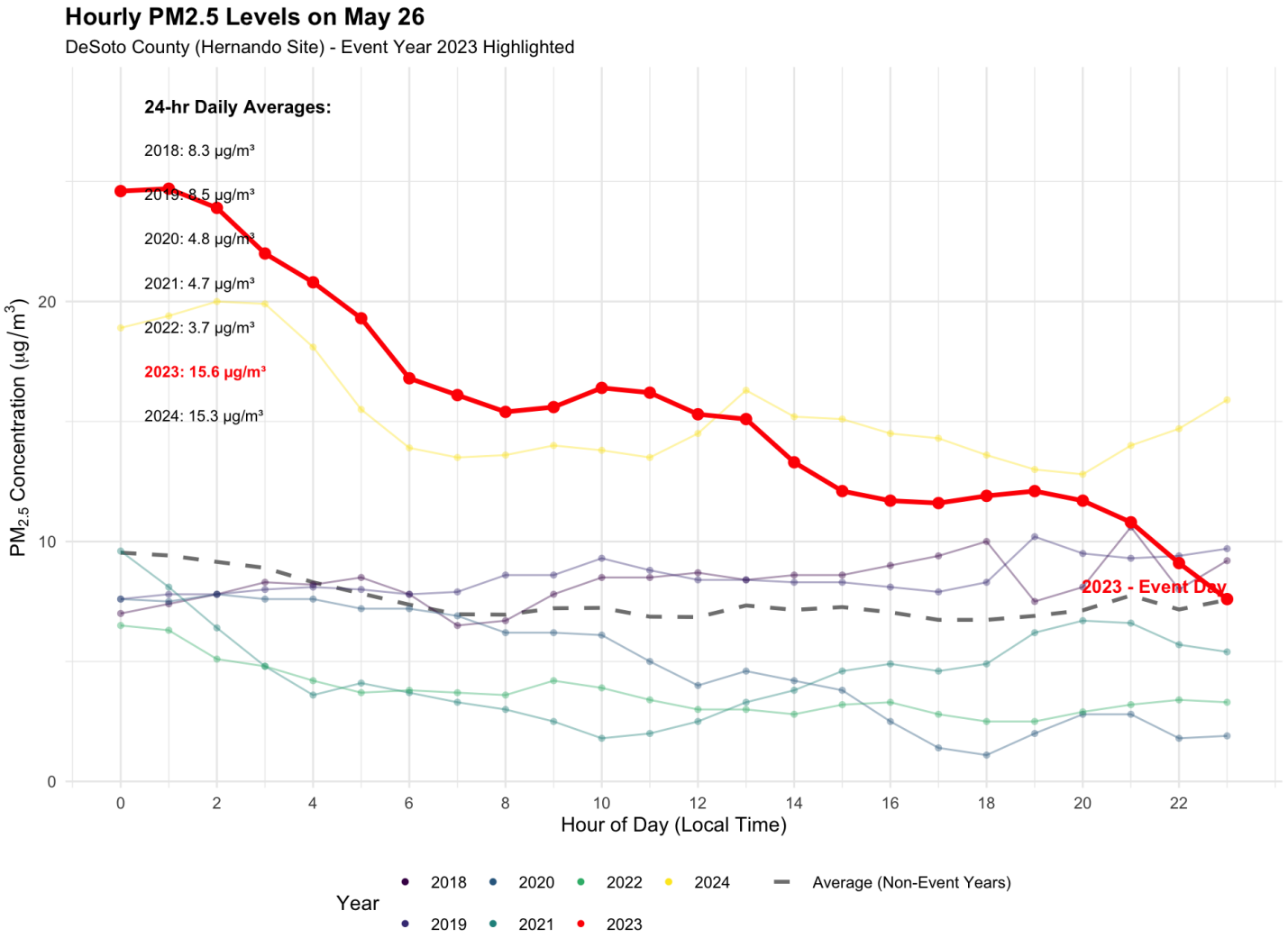
AirNow-Tech Navigator images from May 25th and 26th, 2023, show a large plume of moderate to heavy Canadian wildfire smoke covering the Midsouth, which increased daily PM2.5 values well into the "Moderate" category. 24-hour back trajectories for May 26th confirm this, showing that low-level air parcels (10m and 50m) originated from the northeast. This indicates that concentrated smoke over the southern Ohio River Valley on May 25th moved southwestward, impacting the Hernando monitor on May 26th and resulting in a daily PM2.5 average of 16.7 µg/m^3.



The GOES-East True Color image from 2311 UTC (6:11PM CDT) on May 26th, 2023, shows Canadian smoke encompassing the Midsouth and southeastern States, causing PM2.5 values to become elevated at the Hernando monitor.

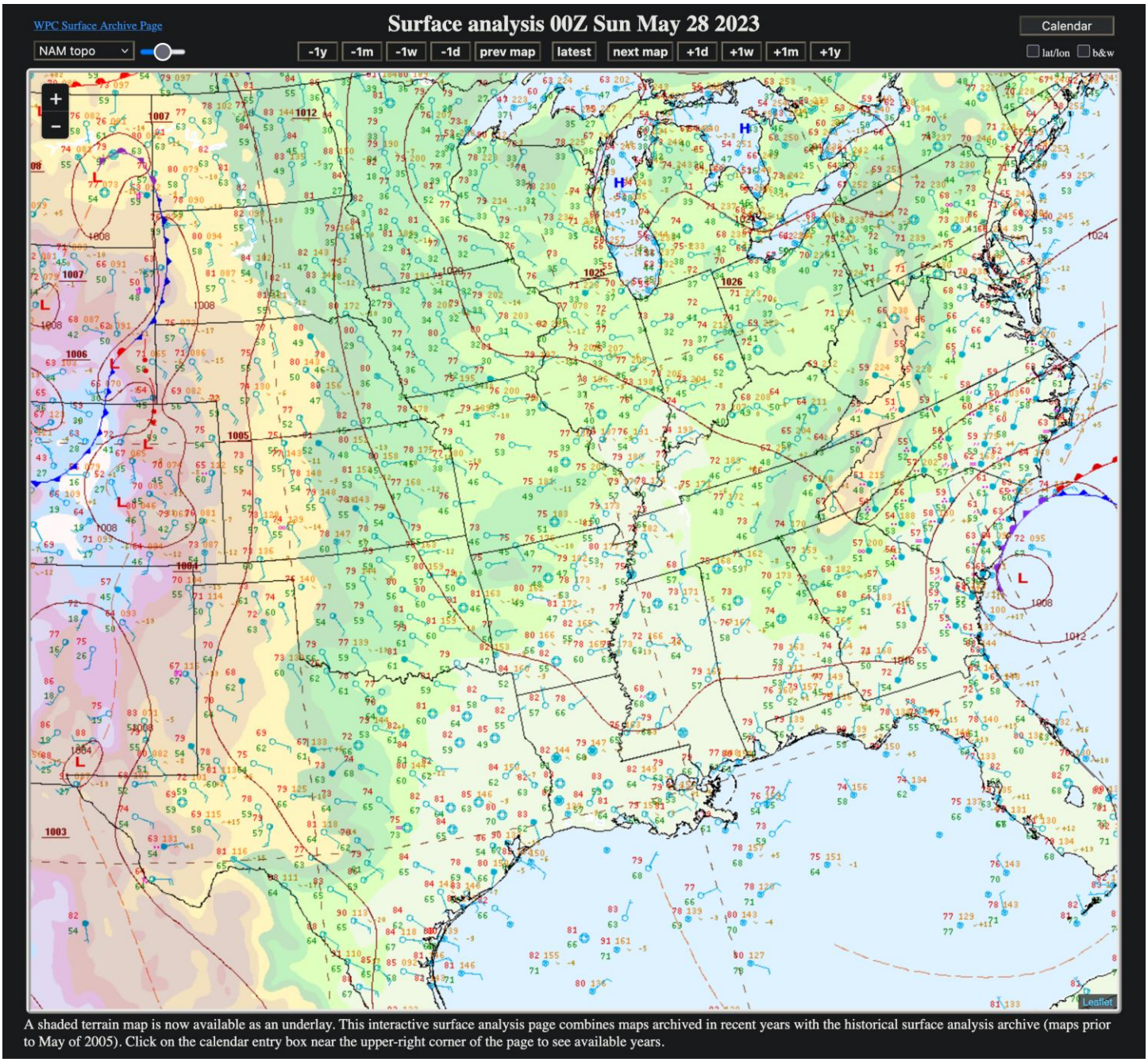
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/26/23	25.5	25.6	24.8	23.9	22.7	21.2	18.7	17	16.3	16.5	17.3	17.1	16.2	16	14.2	13	12.6	12.5	12.8	13	12.6	11.7	10	9.3	16.69	25.6

Hourly PM2.5 values at the Hernando monitor were highest in the early morning due to a shallow frontal inversion trapping smoke from the previous day. Throughout the day, concentrations decreased into the teens as daytime heating increased mixing heights. Despite this improvement, a broad Canadian smoke plume remained over the Midsouth, resulting in a PM2.5 24-hour daily average of 16.69 µg/m^3.

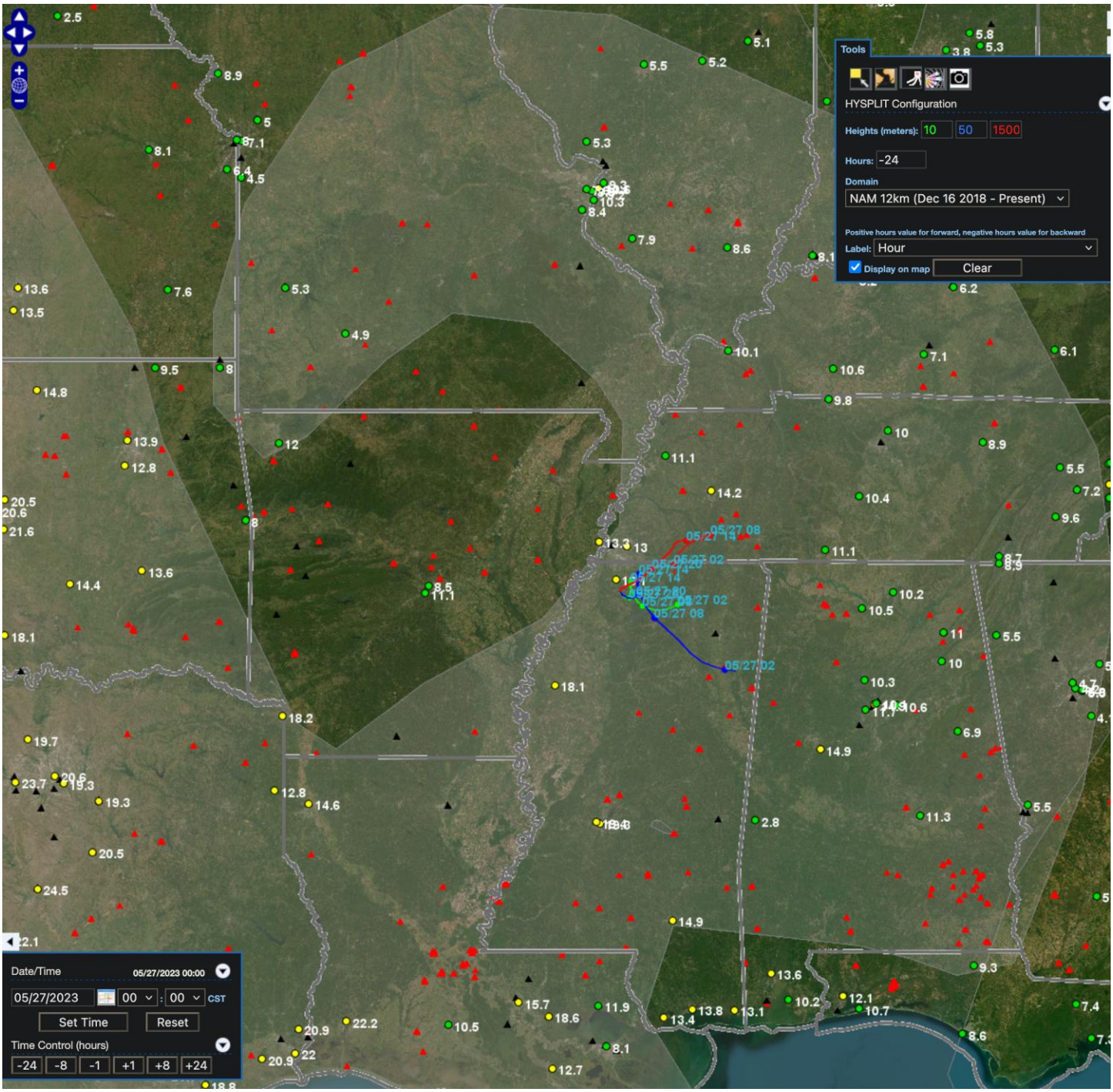


The seven-year hourly time series above show that PM2.5 levels in 2023 were notably higher than in previous, non-exceptional years. 2023 PM2.5 values were noticeably higher in the morning hours thanks to low level frontal inversion, trapping smoke near the surface. Values show a decline during the day yet persistent Canadian smoke into the area, caused PM2.5 concentrations to remain elevated at the Hernando monitor.

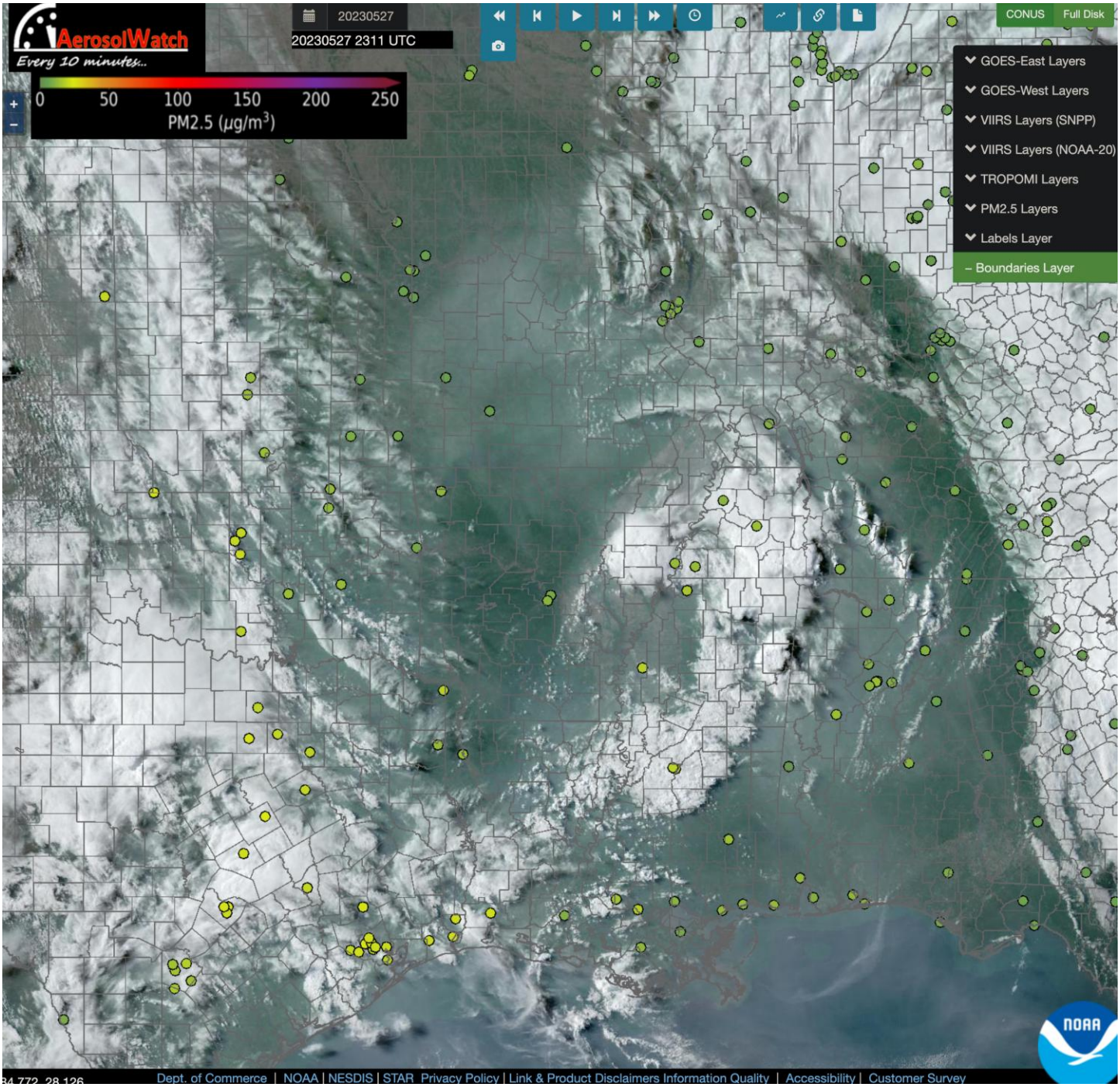
May 27th: Canadian smoke filled airmass remains in place over the Midsouth, keeping PM2.5 values elevated as surface High-Pressure continues to dominate the area.



00Z surface analysis for May 28th (7 PM CDT) shows High-Pressure in firm control over the Midsouth keeping Canadian smoke filled airmass in place.



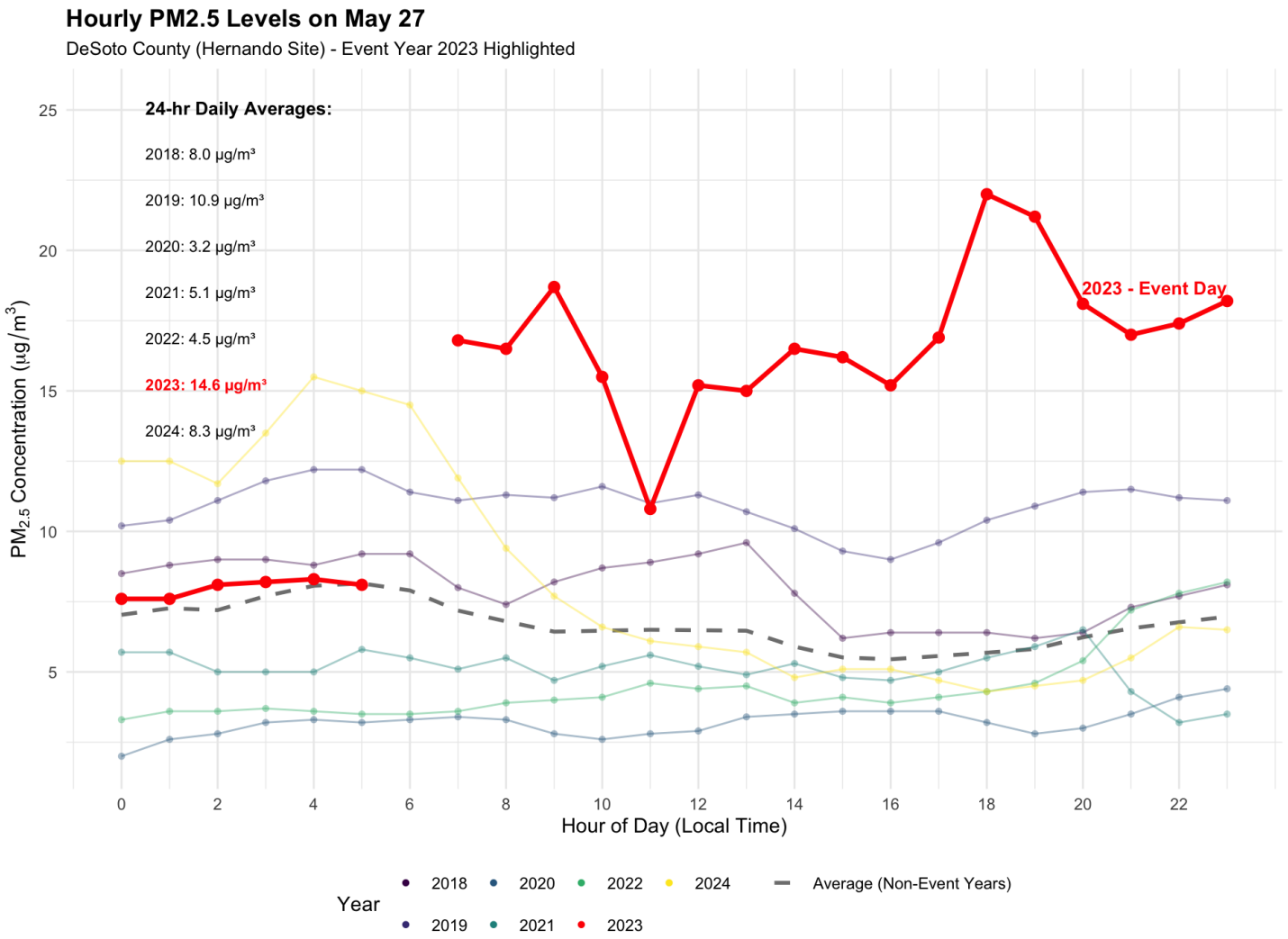
The AirNow-Tech Navigator image from May 27th, 2023, shows a large plume of residual Canadian wildfire smoke covering the Midsouth. Overlaid 24-hour back trajectories confirm the presence of a very stagnant airmass, as trajectories at 10m, 50m, and 1500m show very little movement. This lack of ventilation trapped the existing smoke, causing daily PM2.5 values to remain well into the "Moderate" category.



The GOES-East True Color image from 2311 UTC (6:11PM CDT) on May 27th, 2023, shows Canadian smoke encompassing the Midsouth and southeastern States, causing PM2.5 values to become elevated at the Hernando monitor.

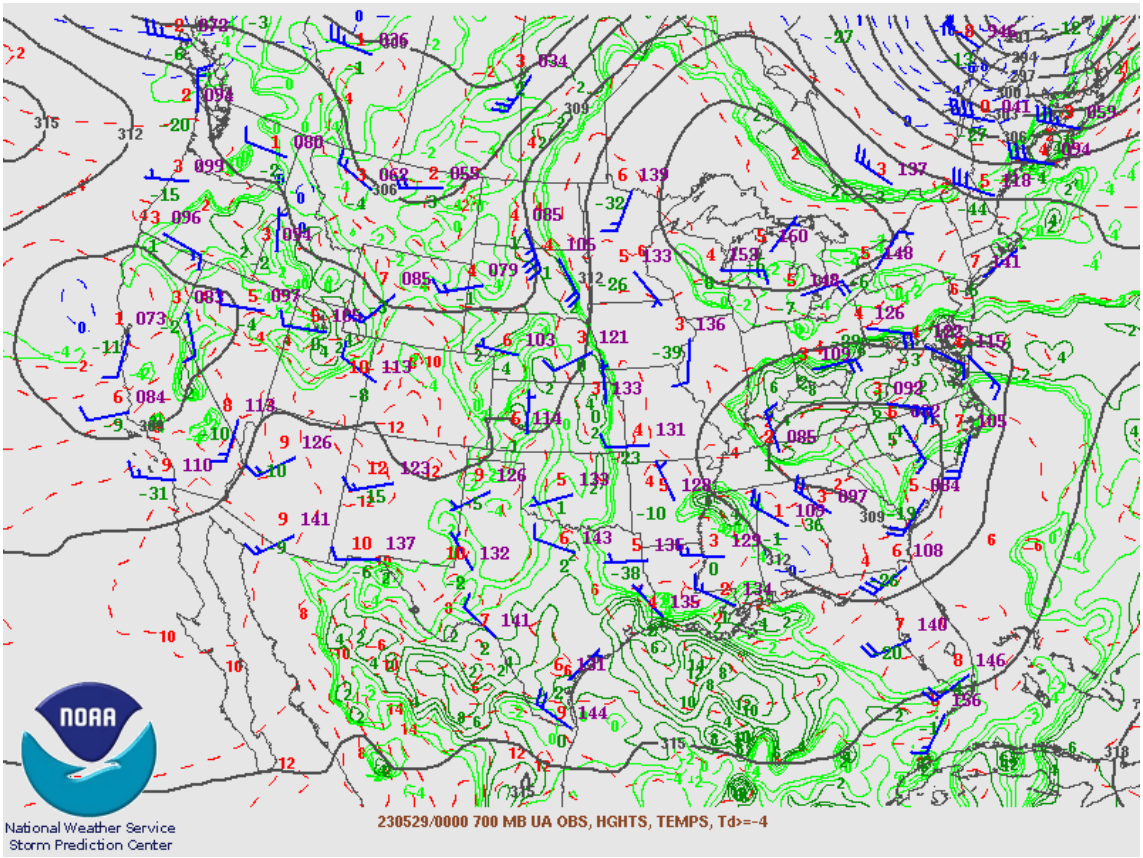
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	05/27/23	9.3	9.3	9.9	10.1	10.2	10		18.7	18.4	20.6	17.4	12.7	16.1	15.9	17.4	17.1	16.1	17.8	22.9	23.1	20	18.9	19.3	20.1	16.14	23.1

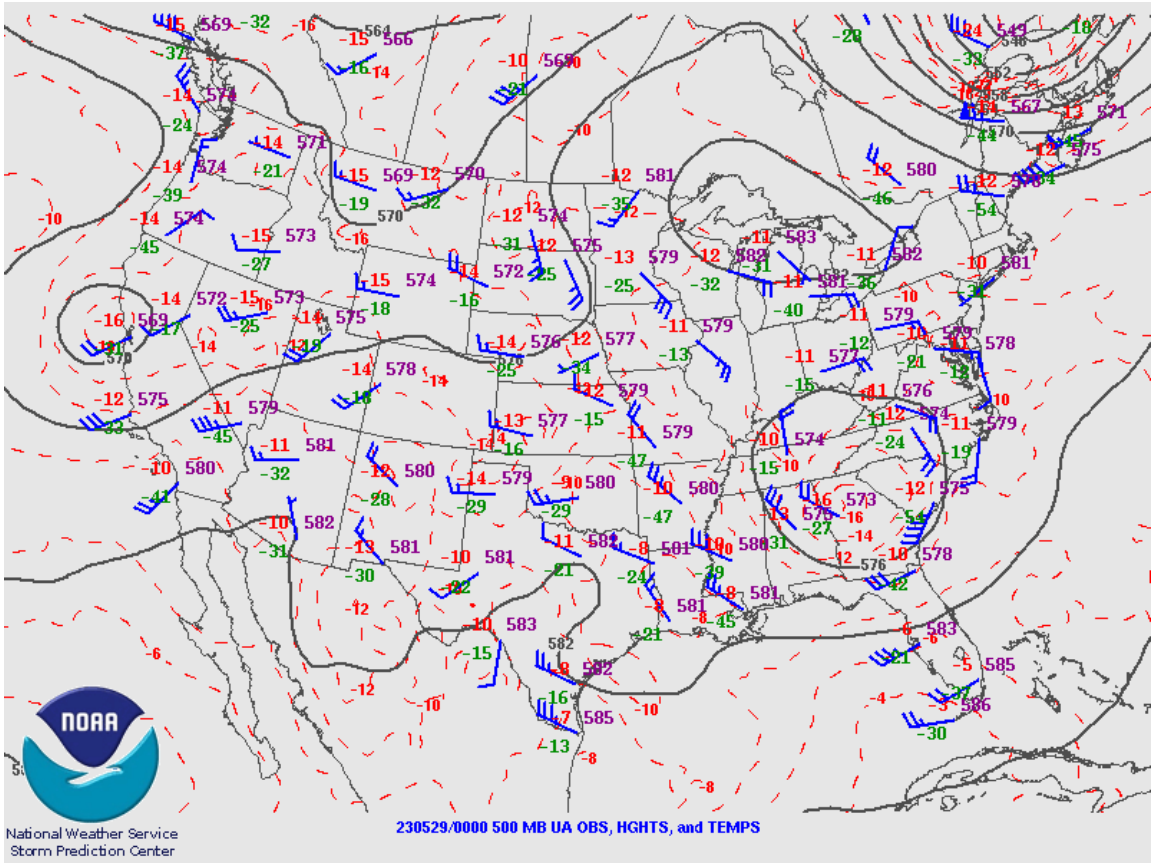
Hourly PM2.5 values at the Hernando monitor increased into the teens and twenties during the early morning into the afternoon and evening hours as stagnant Canadian smoke-filled air-mass remained over the Midsouth, resulting in a PM2.5 24-hour daily average of 16.14 µg/m^3.



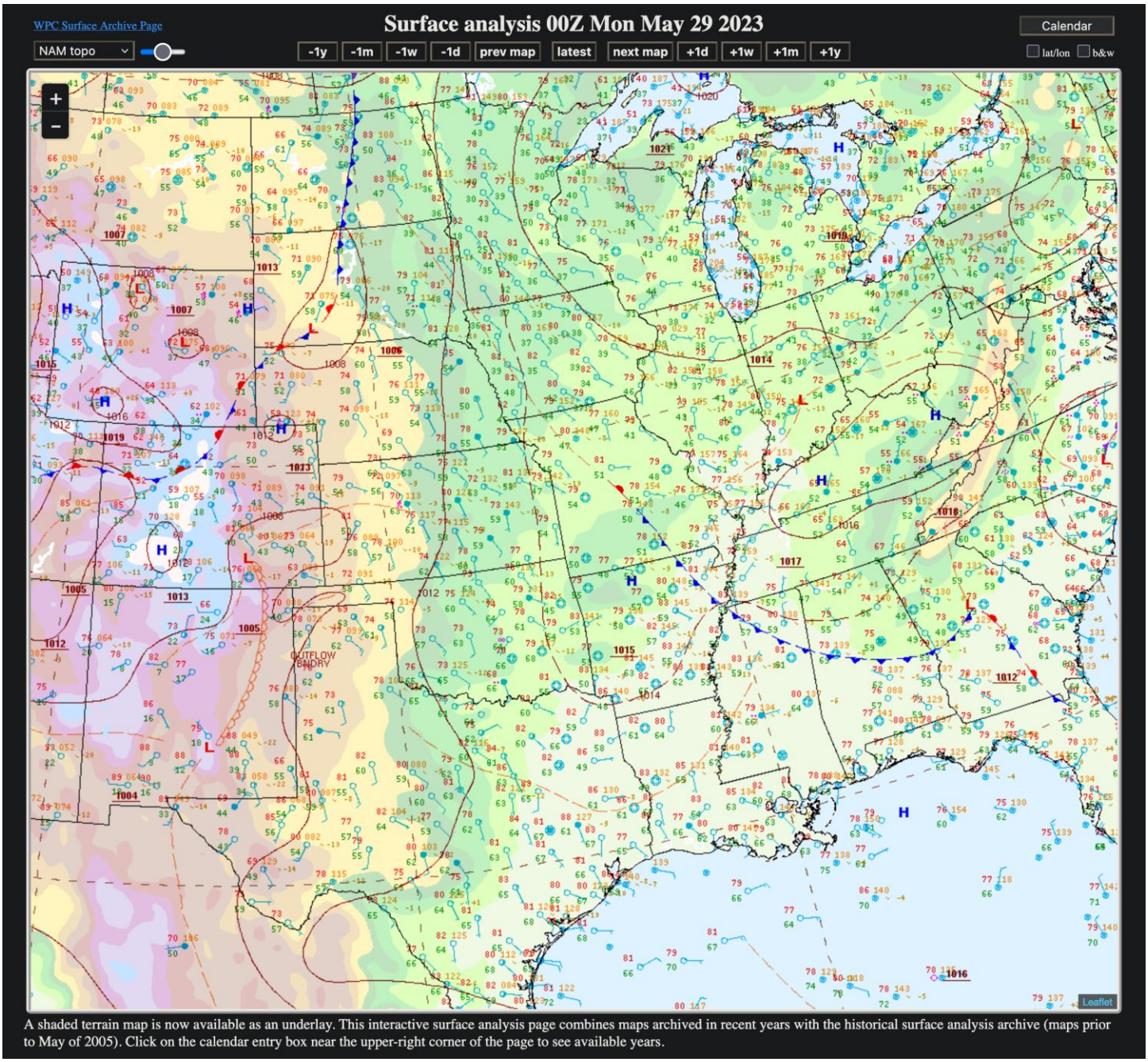
The seven-year hourly time series above show that PM2.5 levels in 2023 were notably higher than in previous, non-exceptional years. 2023 PM2.5 values on May 27th increased and remained elevated mid-morning for the remainder of the day as persistent Canadian smoke affected the Midsouth, causing PM2.5 concentrations to remain elevated at the Hernando monitor.

May 28th: May 28th, saw a reinforcing shot of smoke laden air from the Canadian wildfires thanks to a deepening Upper-Level Low across the Mid-Atlantic states. This will help push a surface boundary across the Midsouth from the north as well as help develop an avenue for Canadian wildfire smoke that resided north of the Canadian border, deep down into the Midsouth and southern states.

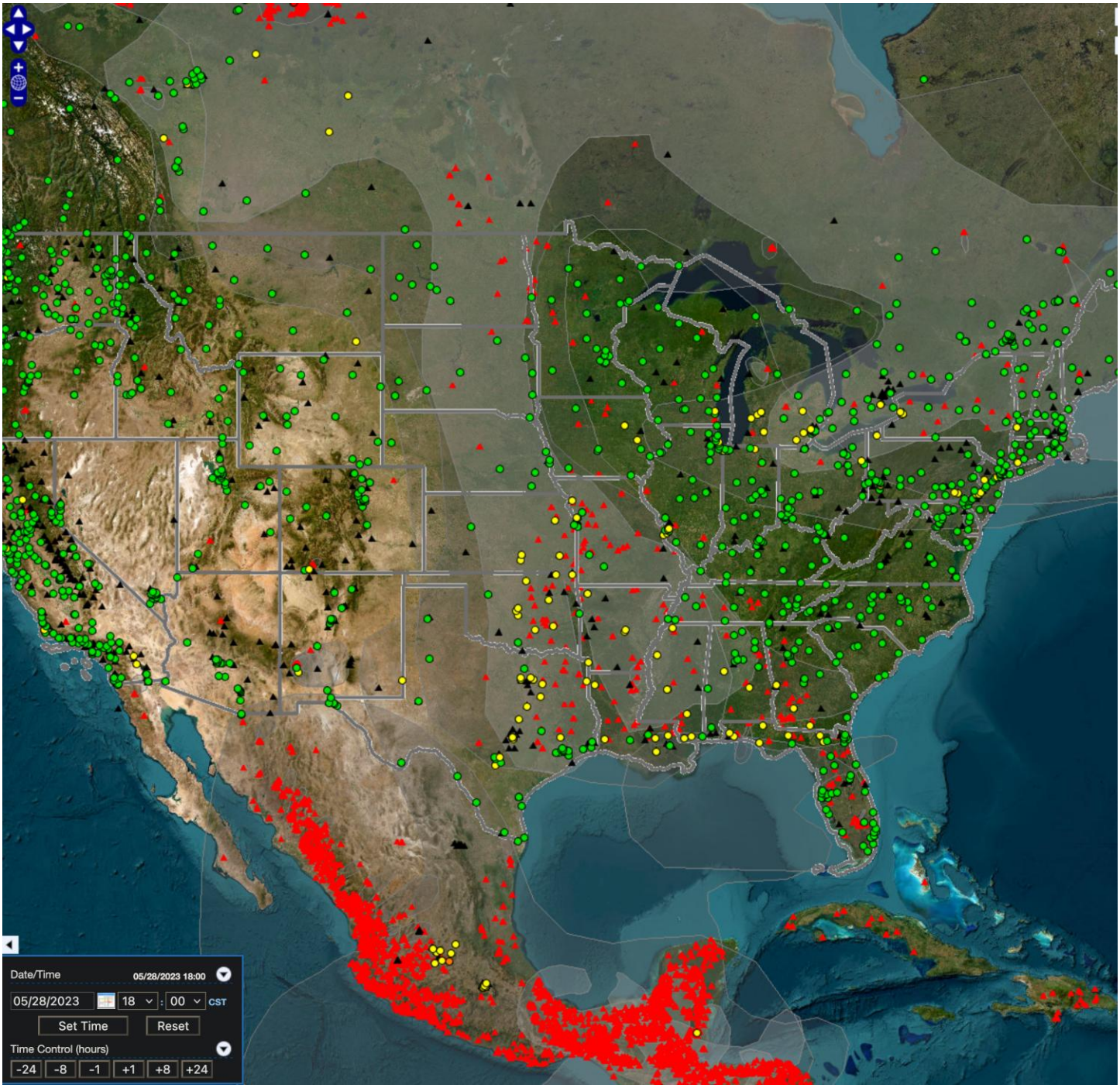

National Weather Service
Storm Prediction Center
230529/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4


National Weather Service
Storm Prediction Center
230529/0000 500 MB UA OBS, HGHTS, and TEMPS

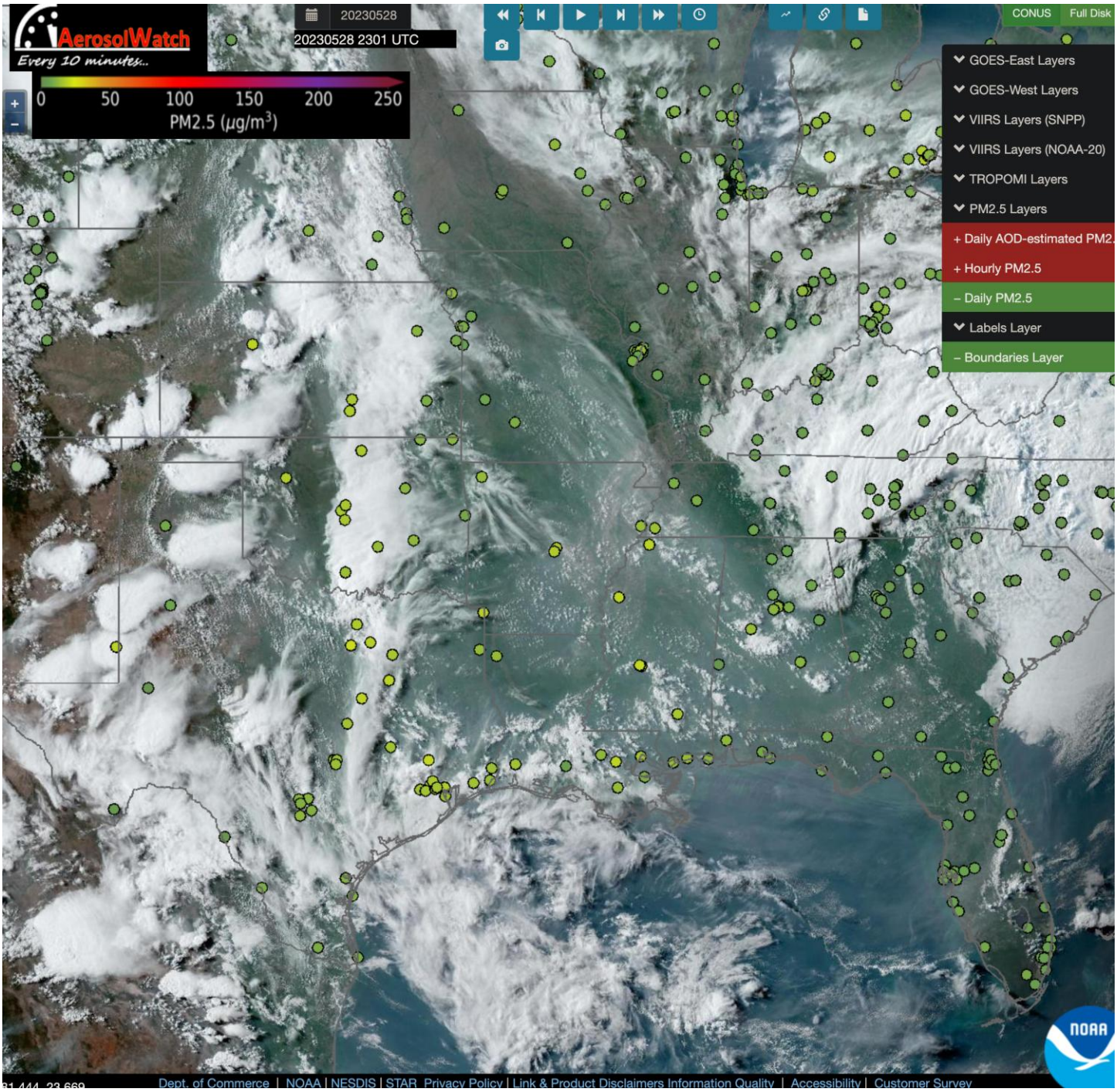
Both 700mb and 500mb upper-level charts at 00z Monday, May 29th (7PM CDT Sunday, May 28th) show deepening Upper-Level Low over the Mid-Atlantic states that will help facilitate Canadian wildfire smoke down to the Midsouth around backside of UL low.



00Z surface analysis for May 29th (7 PM CDT) shows frontal boundary moving through the Mid-South which would help issue in fresh batch of wildfire smoke from Canadian wildfires that would affect the Hernando monitor, raising PM2.5 values.



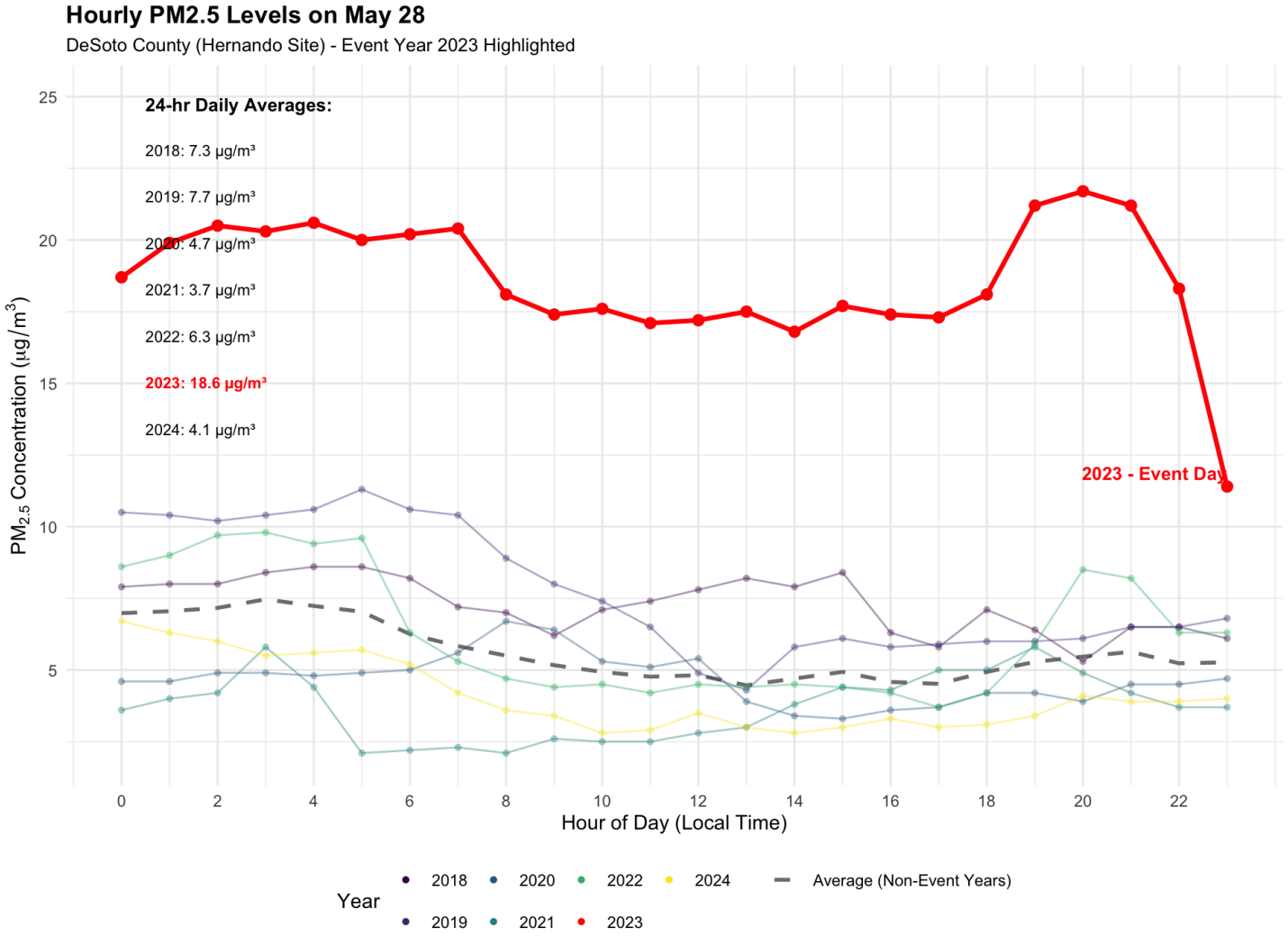
The AirNow-Tech Navigator image from May 28th, 2023, shows fresh plume of Canadian wildfire smoke moving south, affecting the Midsouth, causing daily PM2.5 values to climb into the "Moderate" category at the Hernando monitor.



The GOES-East True Color image from 2301 UTC (6:01PM CDT) on May 28th, 2023, shows Canadian smoke funneling down from the Midwest around backside of an Upper-Level Low situated over the Mid-Atlantic states, encompassing the Midsouth and southeastern States, causing PM2.5 values to become elevated at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	05/28/23	20.6	21.8	22.4	22.2	22.5	21.9	22.1	21.3	19	18.3	18.5	18	18.1	18.4	17.7	18.6	18.3	18.2	19	22.1	22.6	22.1	19.2	13.3	19.84	22.6

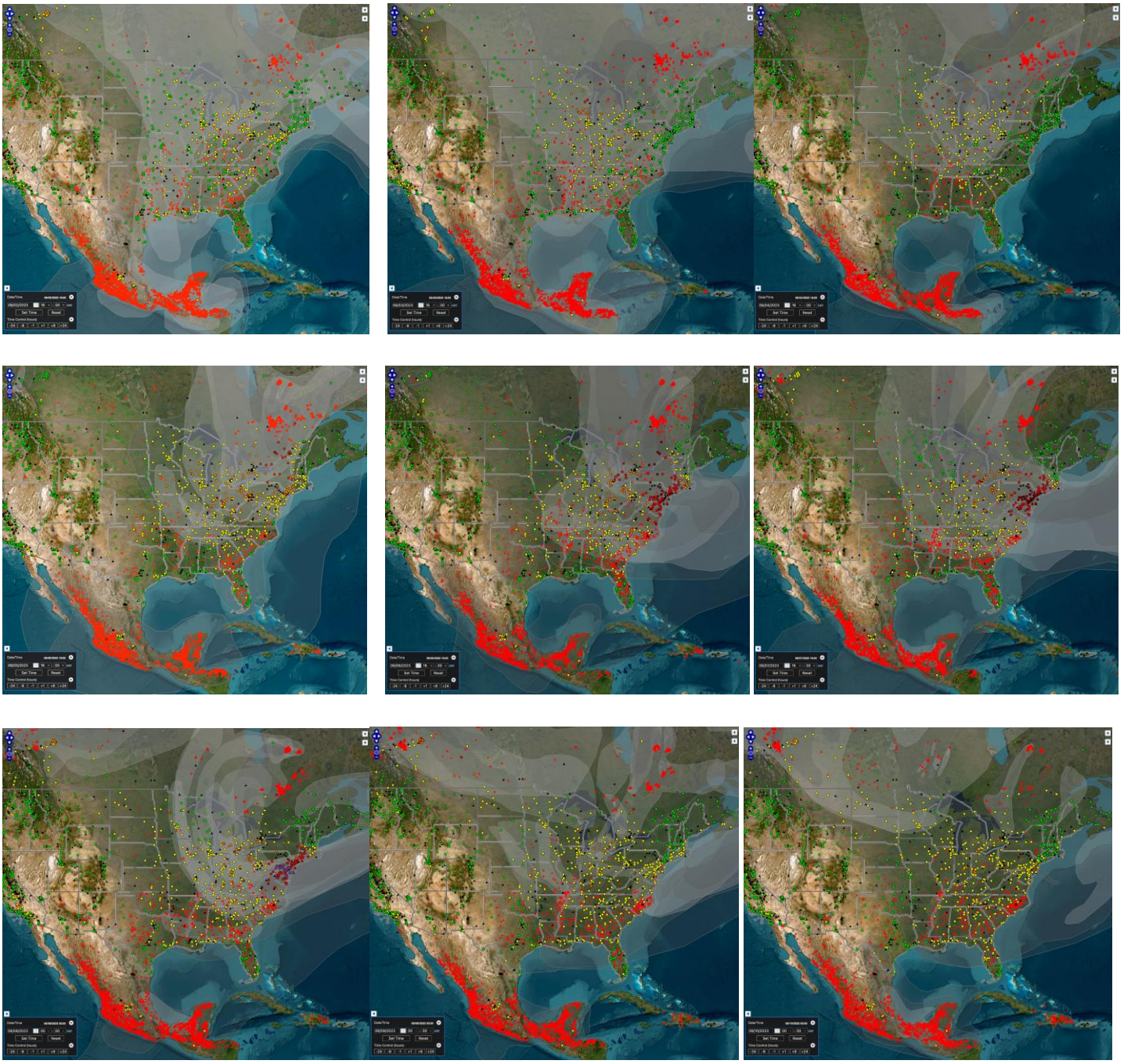
Hourly PM2.5 values at the Hernando monitor remained into the teens and twenties all day on May 28th as a fresh batch of Canadian smoke-filled air-mass moved in over the Midsouth, resulting in a PM2.5 24-hour daily average of 19.84 µg/m^3.



The seven-year hourly time series above show that PM2.5 levels in 2023 were notably higher than in previous, non-exceptional years. 2023 PM2.5 values were elevated on May 28th as fresh Canadian smoke transported down from the Midwest, causing PM2.5 concentrations to remain elevated at the Hernando monitor.

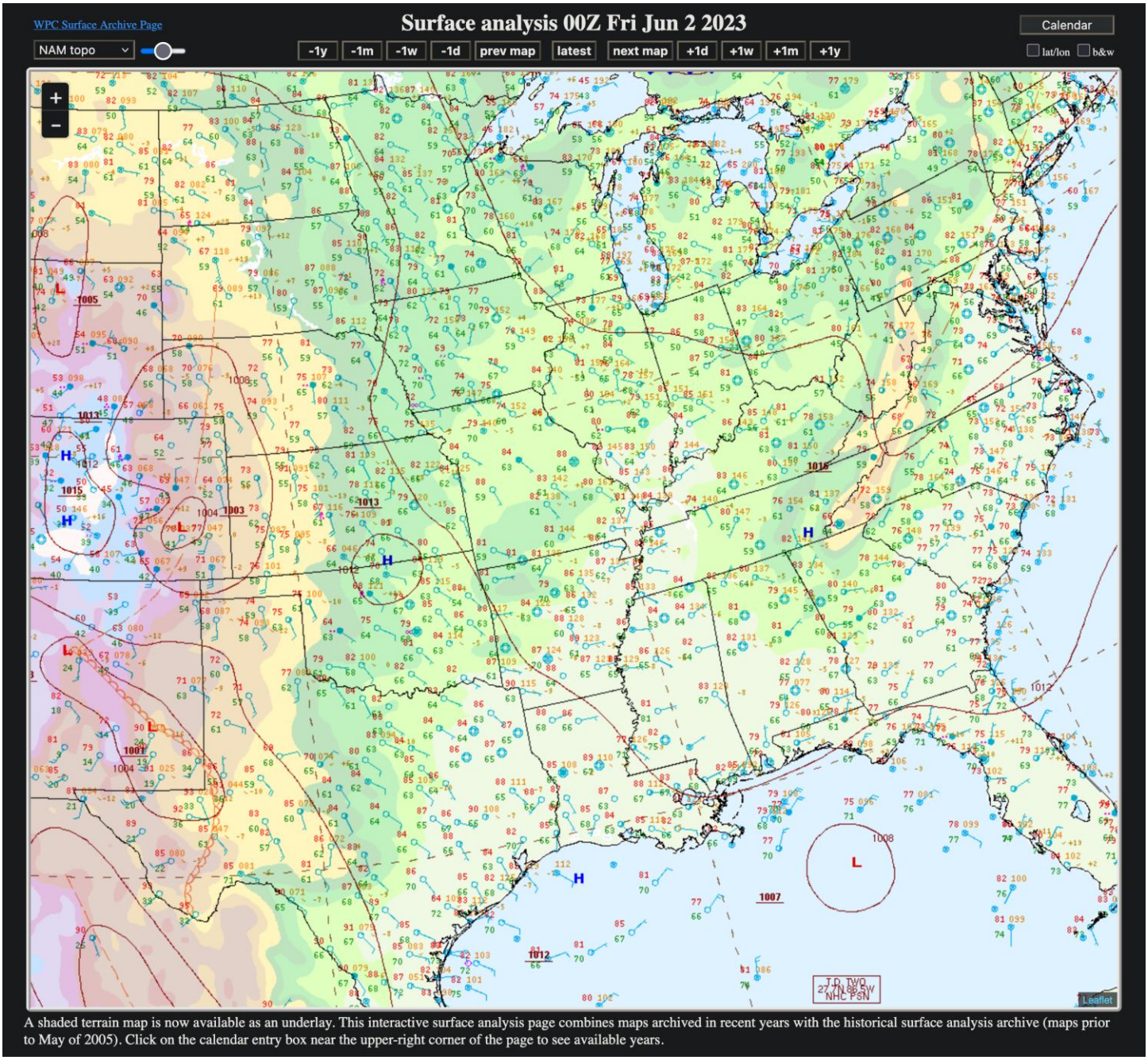
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 1-10, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	21.5, 17.1, 17.3, 21.9, 22.2, 26.2, 34, 27.1, 32.8, 20.2	1 & 2	Canadian Wildfire C Exceptional Event Demonstration: Jun 7 - 9, 2023

Synopsis: Like the previous demonstration for the latter half of May, the first 10 days of June saw several insurgences of Canadian wildfire smoke aided by persistent Upper-Level troughing over the eastern half of the United States, helping issue down a serious of surface fronts, transporting smoke deep into the Midsouth and southern United States.



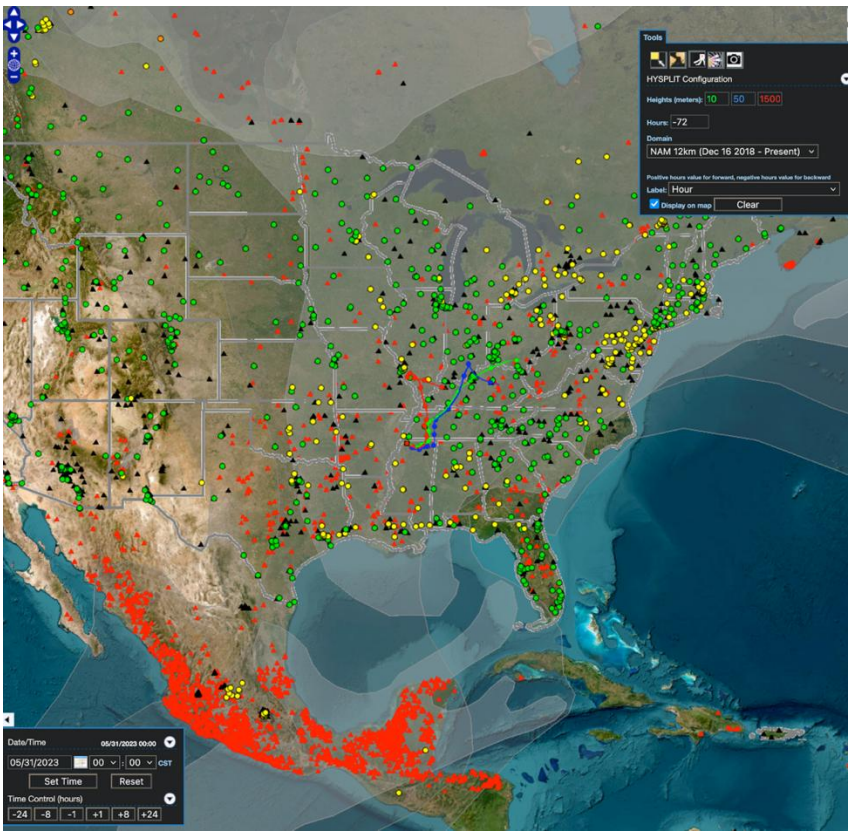
Series of AirNowTech Navigator image taken from June 2nd, 2023, through June 10th, 2023, show the progression of smoke from the Canadian wildfires in Quebec, transporting into the northeastern United States, the Ohio River Valley, and eventually into the Eastern and southeastern portions of the United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

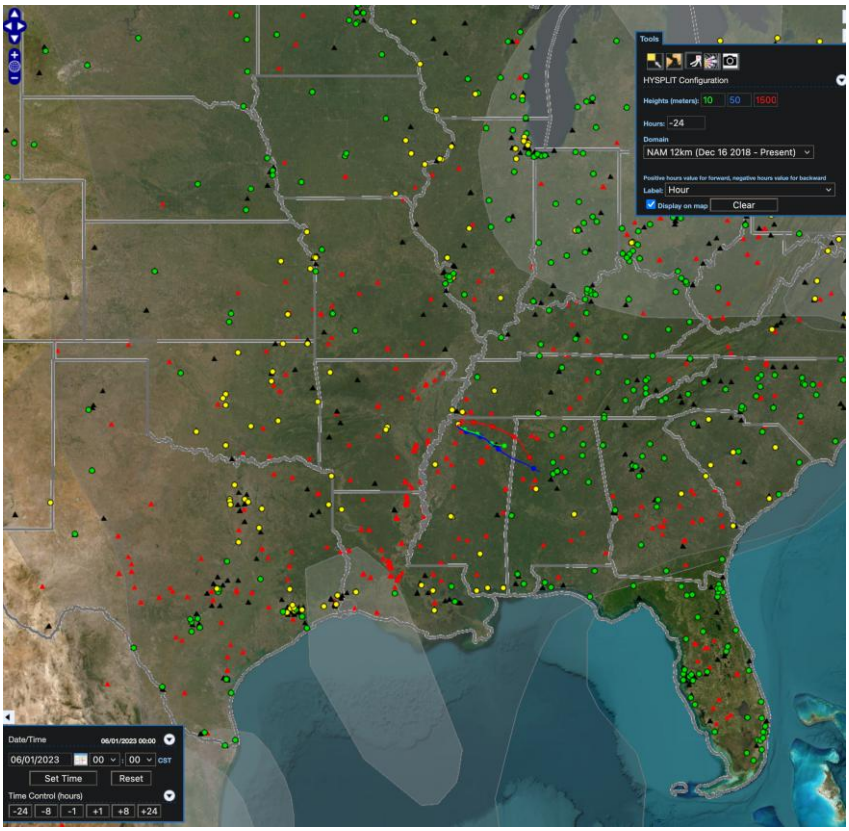
June 1st: June 1st saw elevated PM2.5 values thanks to a fresh batch of Canadian smoke that was issued thanks to a cold front that moved through days prior. Behind the front, High-Pressure moved in, sitting over the Midsouth for several days creating stagnant air-mass, trapping Canadian wildfire smoke over the area, elevating PM2.5 values.



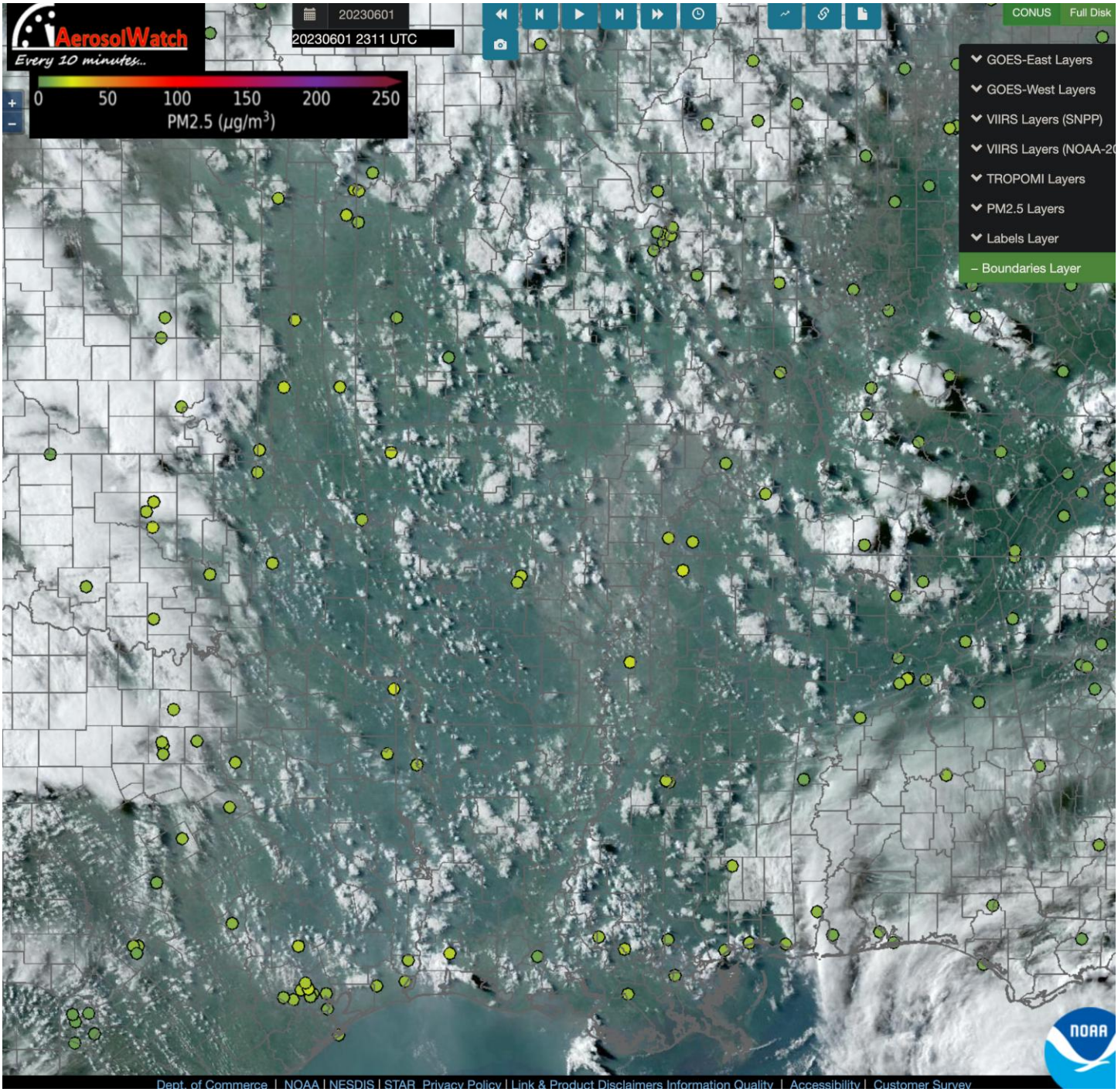
A shaded terrain map is now available as an underlay. This interactive surface analysis page combines maps archived in recent years with the historical surface analysis archive (maps prior to May of 2005). Click on the calendar entry box near the upper-right corner of the page to see available years.

00Z surface analysis Friday, June 2nd (June 1st, 7 PM CDT) shows High-Pressure over the Midsouth and southeastern United States, helping enable stable/stagnant conditions, trapping smoke from Canadian wildfires over that transported in over the past few days, elevating PM2.5 values at the Hernando monitor.





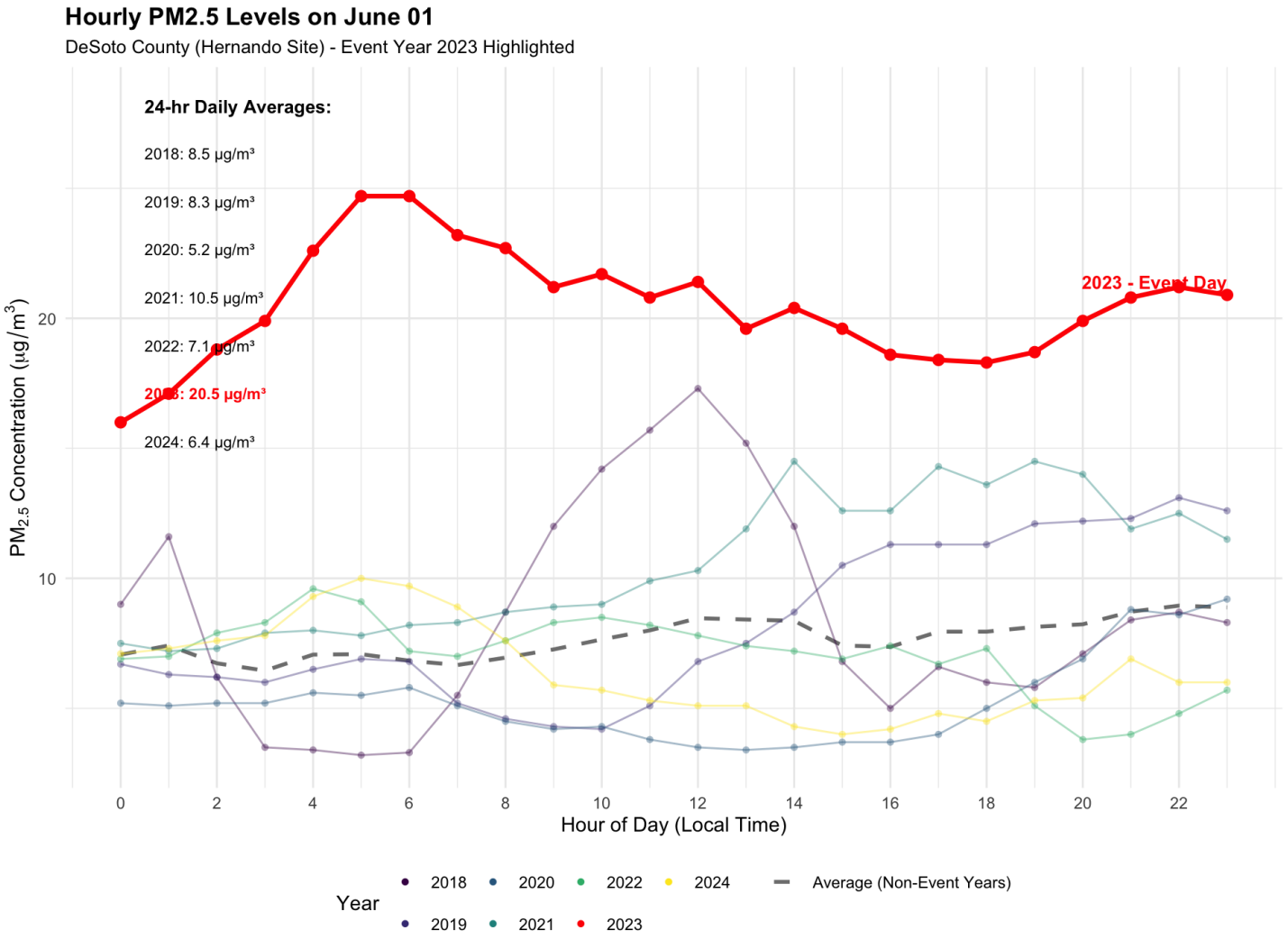
The AirNow-Tech Navigator image from May 31st, 2023, shows fresh plume of Canadian wildfire smoke moving south, affecting the Midsouth, causing daily PM2.5 values to climb into the "Moderate" category at the Hernando monitor. June 1st, AirNow-Tech Navigator image shows 24-hour back trajectories having very little movement of the parcel, indicating stagnant conditions with remnant smoke over the area, keeping PM2.5 values elevated at the Hernando monitor.



The GOES-East True Color image from 2311 UTC (6:31PM CDT) on June 1st, 2023, shows residual Canadian smoke over the Midsouth that was transported in days prior, causing PM2.5 values to remain elevated at the Hernando monitor.

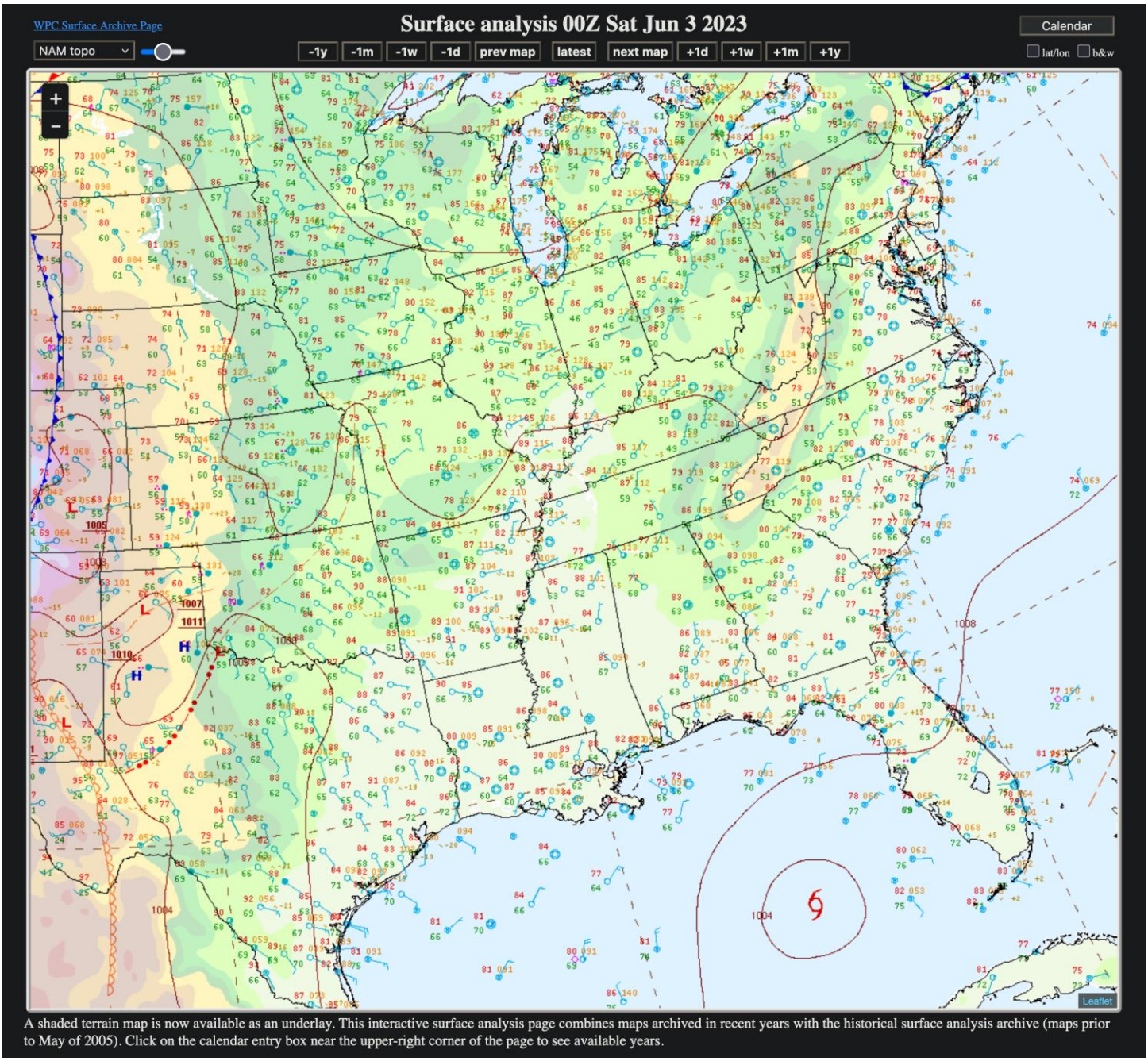
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/01/23	16.9	18	19.7	21.8	24.5	25.6	25.6	24.1	23.6	22.1	22.6	21.7	22.3	20.5	21.3	20.5	19.5	19.3	19.2	19.6	20.8	21.7	22.1	21.8	21.45	25.6

Hourly PM2.5 values at the Hernando monitor remained into the teens and twenties all day on Jun 1st as Canadian smoke-filled air-mass remained over the Midsouth, resulting in a PM2.5 24-hour daily average of 21.45 µg/m^3.

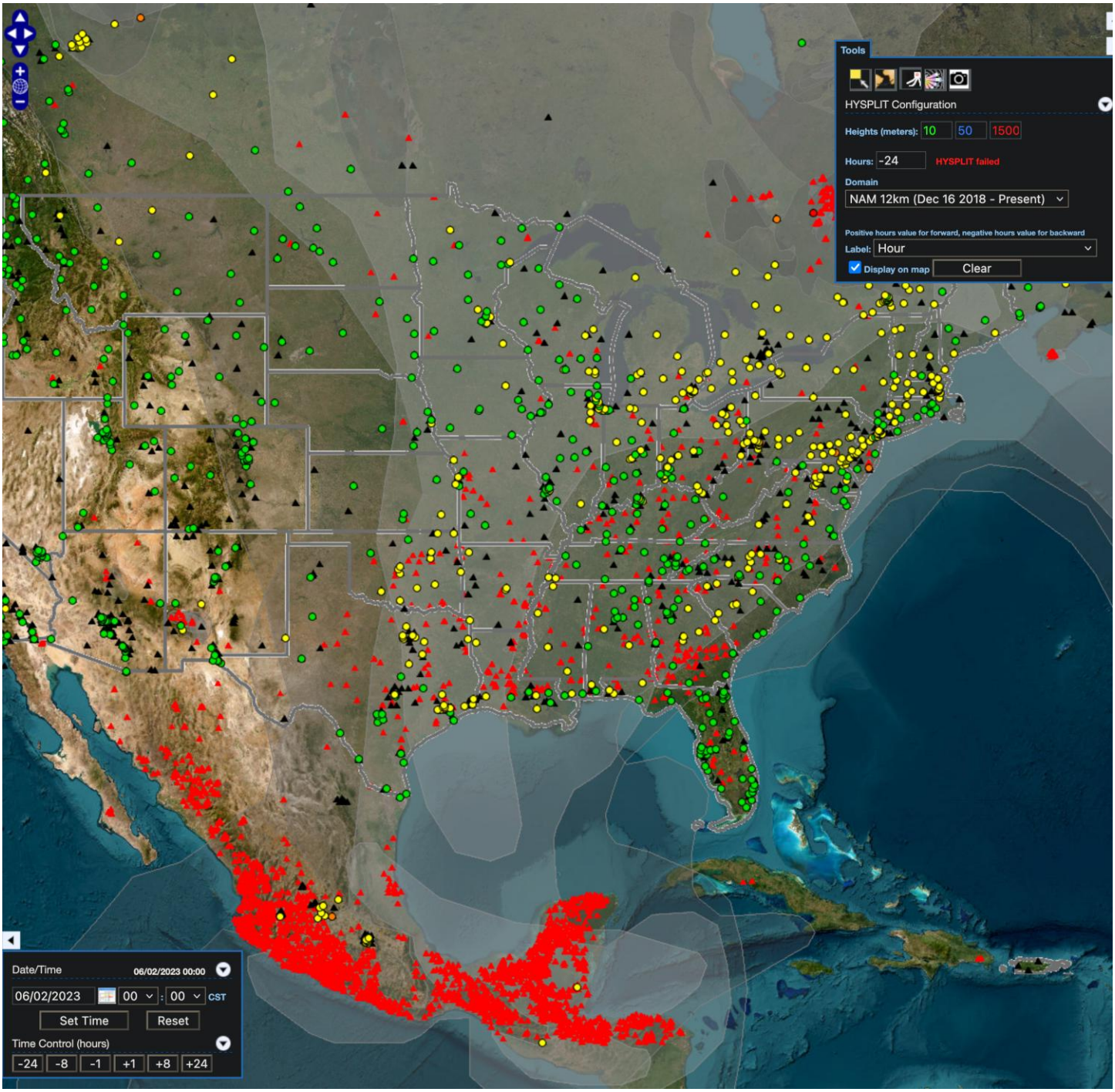


The hourly time series plot for June 1st, shown above, demonstrates that PM2.5 levels in 2023 were notably higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to residual smoke from Canadian wildfires, which had been transported into the region from the Midwest on preceding days, causing persistently high readings at the Hernando monitor.

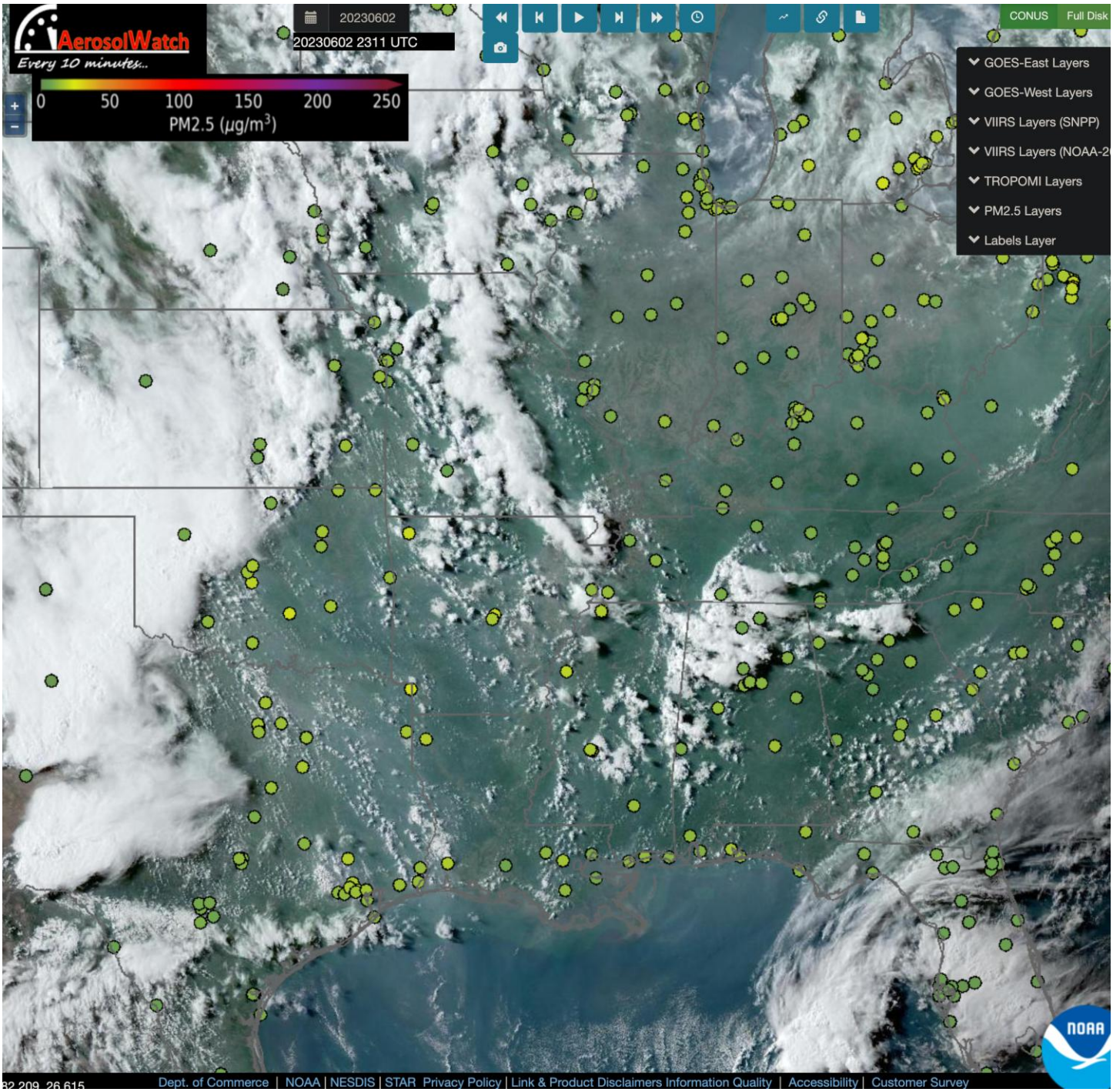
June 2nd: High-Pressure remained in firm control over the Midsouth continuing to enable stagnant conditions as smoke from the Canadian wildfires continued to transport in from the upper Midwest down into the Midsouth, keeping PM2.5 values elevated at the Hernando monitor.



00Z surface analysis Saturday, June 2nd (June 1st, 7 PM CDT) shows High-Pressure over the Midsouth and southeastern United States, helping enable stable/stagnant conditions, trapping smoke from Canadian wildfires that transported in over the past few days, elevating PM2.5 values at the Hernando monitor.



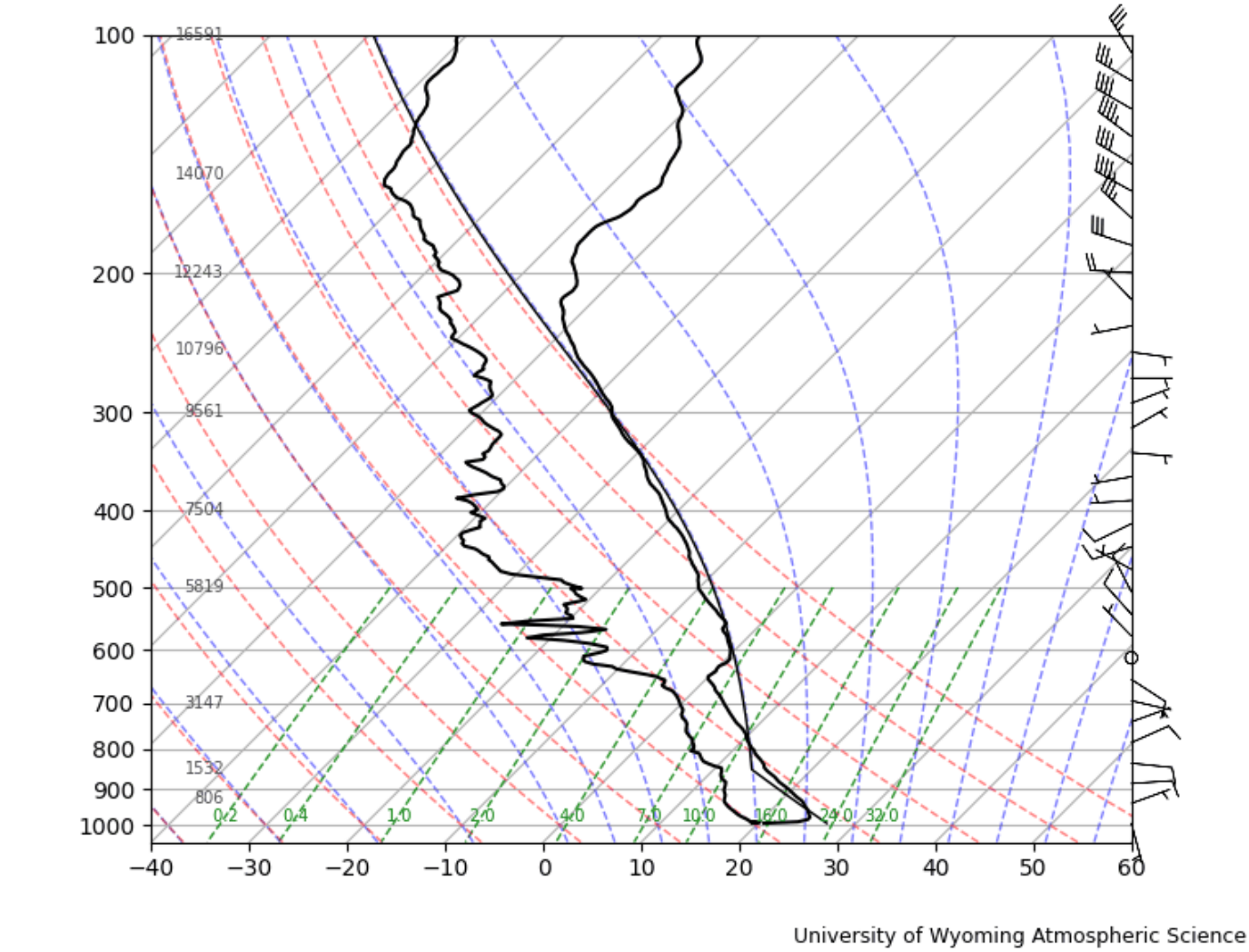
The AirNow-Tech Navigator image from June 2nd, 2023, shows a continual influx of Canadian wildfire smoke moving south, affecting the Midsouth, causing daily PM2.5 values to remain into the "Moderate" category at the Hernando monitor.



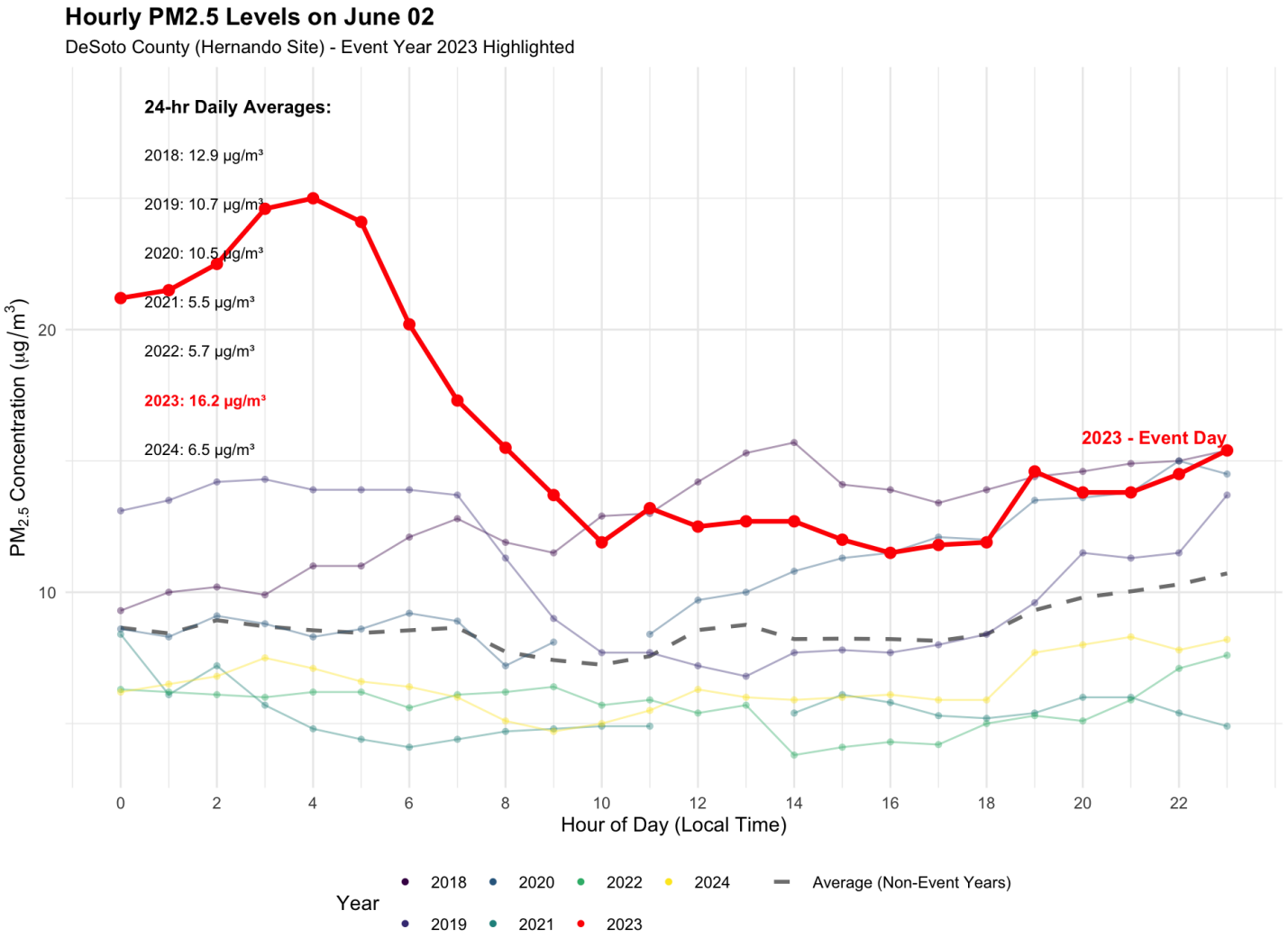
The GOES-East True Color image from 2311 UTC (6:31PM CDT) on June 2nd, 2023, shows Canadian smoke over the Midsouth that is continually being transported over the area, causing PM2.5 values to remain elevated at the Hernando monitor.

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
HERNANDO/280330002/PM2.5-88101/3	06/02/23	22.1	22.4	23.4	25.5	25.9	25	21.1	18.2	16.4	14.6	12.8	14.1	13.4	13.6	13.6	12.9	12.4	12.7	12.8	15.5	14.7	14.7	15.4	16.3	17.06	25.9

Hourly PM2.5 values at the Hernando monitor were in the twenties during the pre-dawn hours as low level nocturnal inversion trapped smoke near the surface, remained into the teens the majority of the day on Jun 2nd as Canadian smoke-filled air-mass continued to transport in over the Midsouth from the north, resulting in a PM2.5 24-hour daily average of 17.06 µg/m^3.



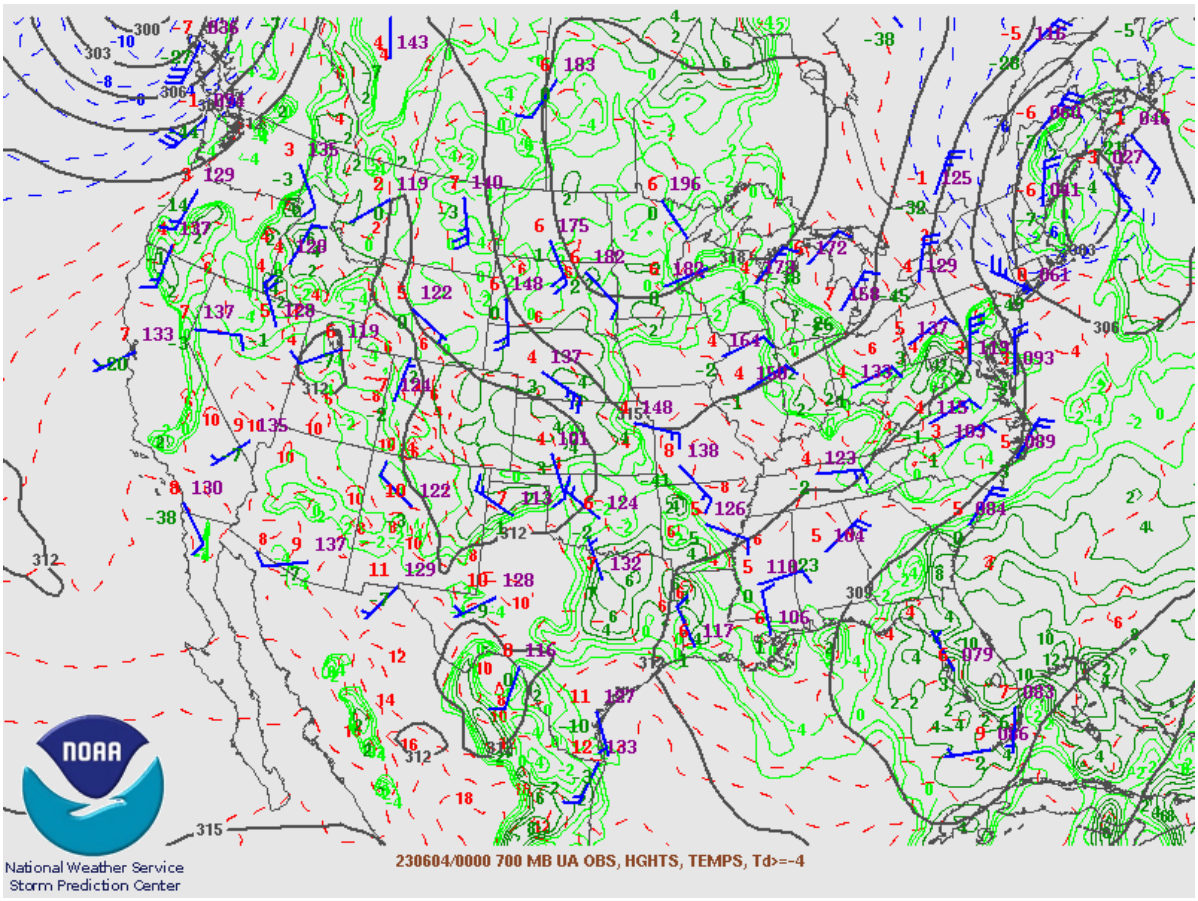
As previously mentioned in the hourly PM2.5 figure above, 12Z Little Rock sounding from June 2nd, 2023, showing very low nocturnal inversion, helping trap previous days Canadian wildfire smoke near the surface, increasing PM2.5 concentrations at the Hernando monitor.

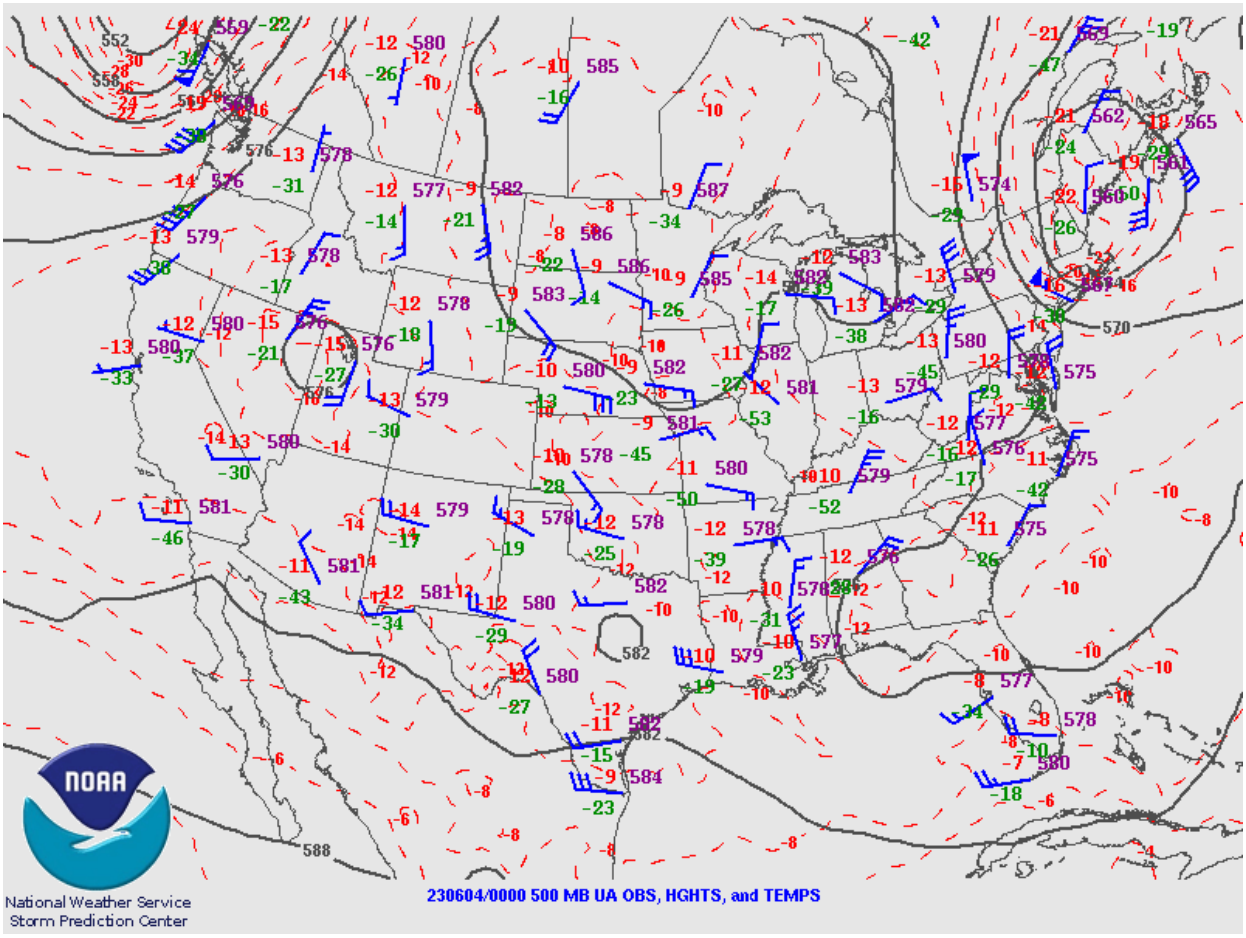


The hourly time series plot for June 2nd, shown above, demonstrates that 24-hour PM2.5 levels in 2023 were notably higher than those observed in previous, non-exceptional years. Especially during the morning hours thanks to low level nocturnal inversion, trapping smoke near the ground. These elevated concentrations are attributed to residual smoke from Canadian wildfires, which had been transported into the region from the Midwest, causing persistently high readings at the Hernando monitor.

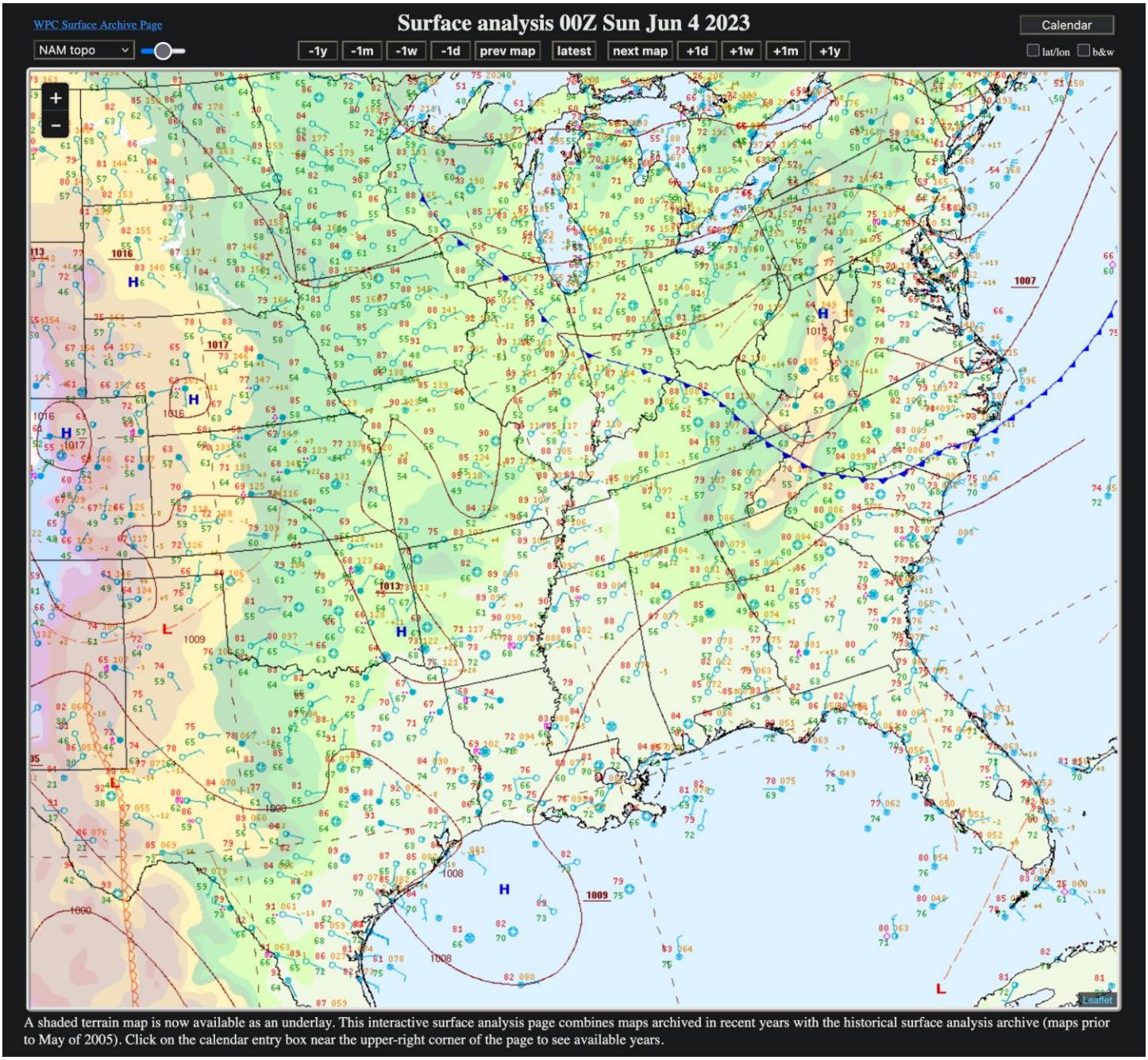
June 3rd: On June 3rd, a significant influx of smoke from Canadian wildfires continued to enter the upper Midwest and northeastern United States. The source of this smoke was numerous large wildfires burning across Quebec, just north of the U.S. border with New York.

The prevailing upper-level atmospheric pattern was highly favorable for this transport. A strong Upper-Level Low situated off the New England coast, working in tandem with a large Upper-Level Ridge over the upper Midwest and south-central Canada, established a distinct channel of northerly to northeasterly flow. This setup created a direct pathway, allowing heavy and dense smoke from the Quebec wildfires to be advected deep into the United States.

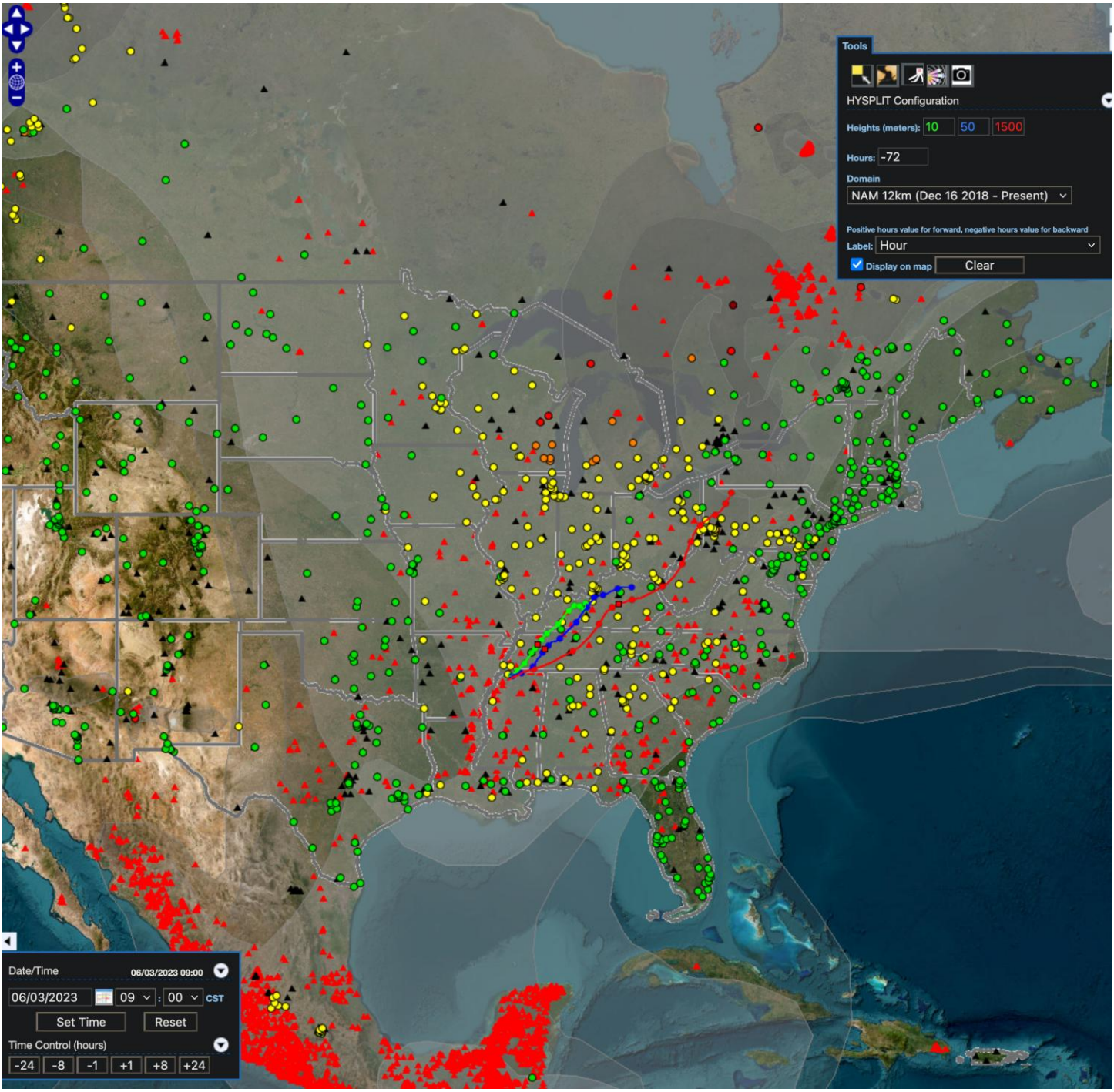

NOAA
National Weather Service
Storm Prediction Center
230604/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4


NOAA
National Weather Service
Storm Prediction Center
230604/0000 500 MB UA OBS, HGHTS, and TEMPS

Upper-level charts from June 4th at 00Z (June 3rd, 7PM CDT) show Upper-Level Low over Maine and Upper-Level Ridge across the upper Midwest, allowing a pathway for smoke from the Quebec fires to transport into the United States.

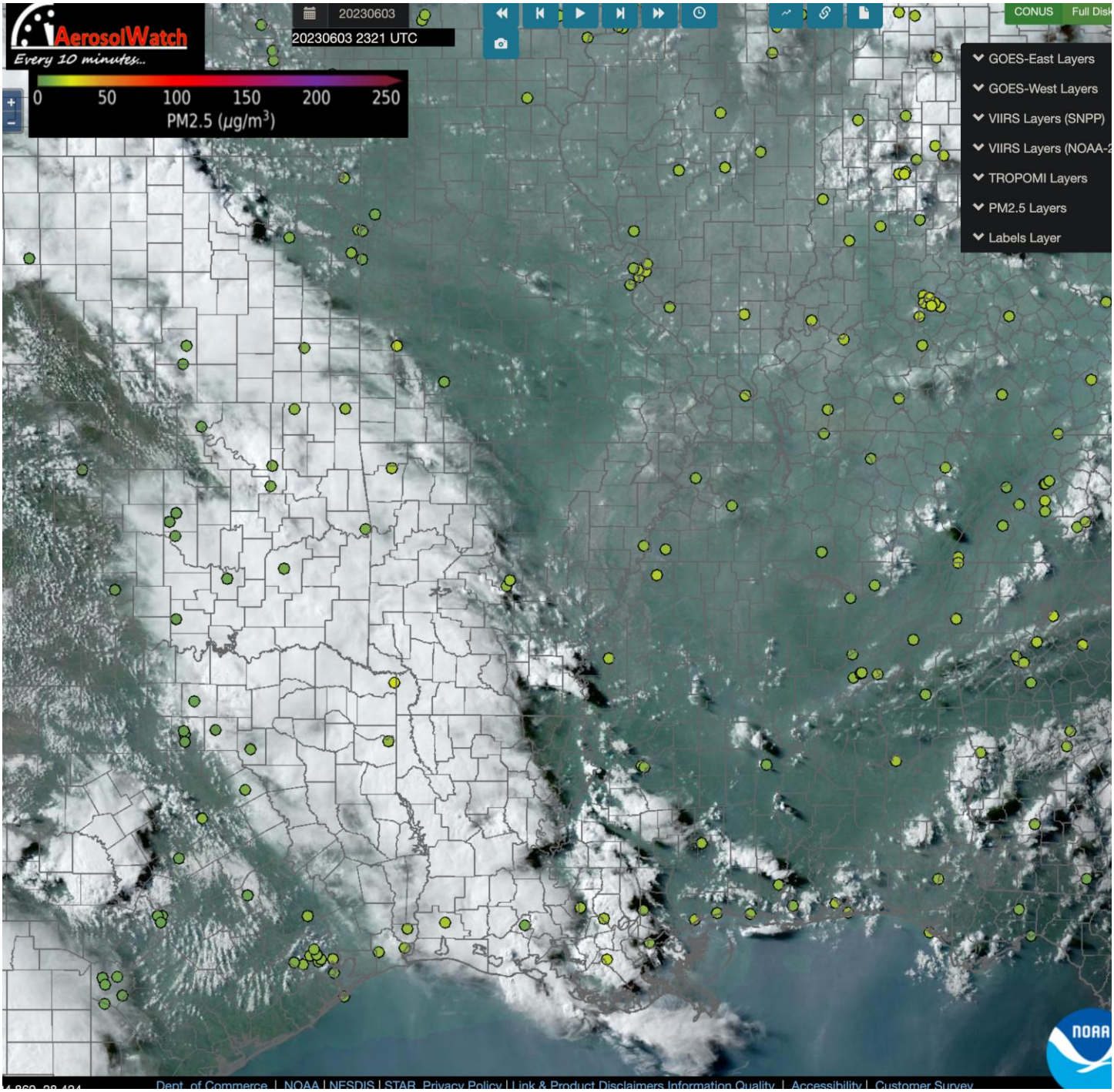


00Z surface analysis Sunday, June 4th (Saturday, June 3rd, 7 PM CDT) shows northeasterly winds to the right of surface High-Pressure situated over the southern Midwest, helping steer Canadia smoke across the Midsouth, elevating PM2.5 values at the Hernando monitor.



The AirNow-Tech Navigator image for June 3rd, 2023, illustrates the source of the event, depicting numerous wildfires over Quebec and the resulting heavy smoke being advected southward into the United States.

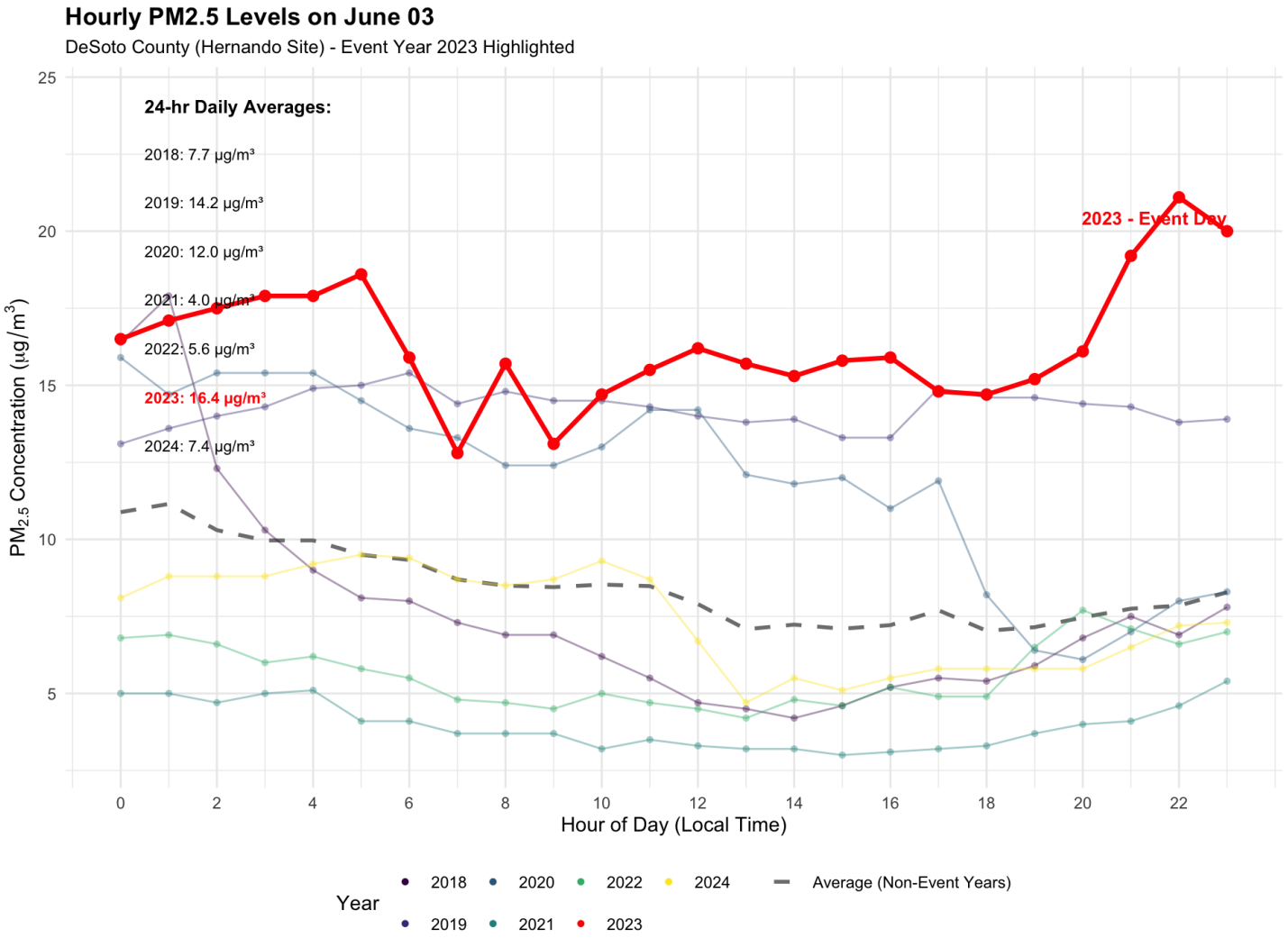
This transport mechanism is corroborated by 72-hour HYSPLIT back trajectories ending at the Hernando monitor. These trajectories trace the origin of the air parcels back to the northeastern United States, a region already experiencing high concentrations of smoke from the Quebec wildfires. The model illustrates a clear northeasterly flow that steered the smoke plume southwestward toward the Midsouth. As a direct result of this long-range transport, daily PM2.5 values at the Hernando monitor climbed into the 'Moderate' Air Quality Index (AQI) category.



The GOES-East True Color image from 2321 UTC (6:21PM CDT) on June 3rd, 2023, shows Canadian smoke over the Midsouth that is continually being transported over the area from the northeast, causing PM2.5 values to remain elevated at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/03/23	17.4	18	18.4	18.8	18.8	19.5	16.8	13.7	16.6	14	15.6	16.4	17.1	16.6	16.2	16.7	16.8	15.7	15.6	16.1	17	20.1	22	20.9	17.28	22

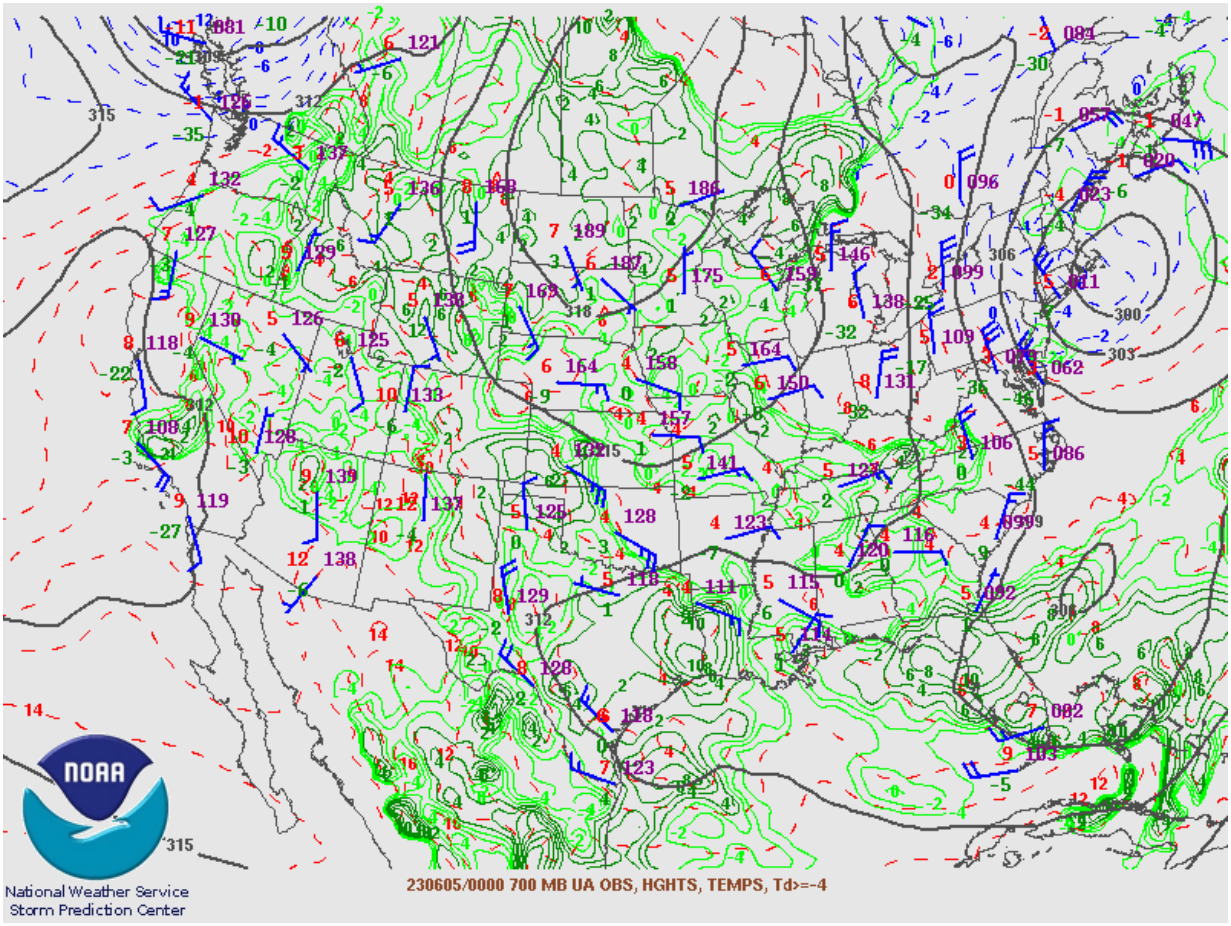
Hourly PM2.5 values at the Hernando monitor were in the teens the majority of the day on Jun 3rd, as Canadian smoke-filled air-mass continued to transport in over the Midsouth from the northeast, resulting in a PM2.5 24-hour daily average of 17.28 µg/m^3.

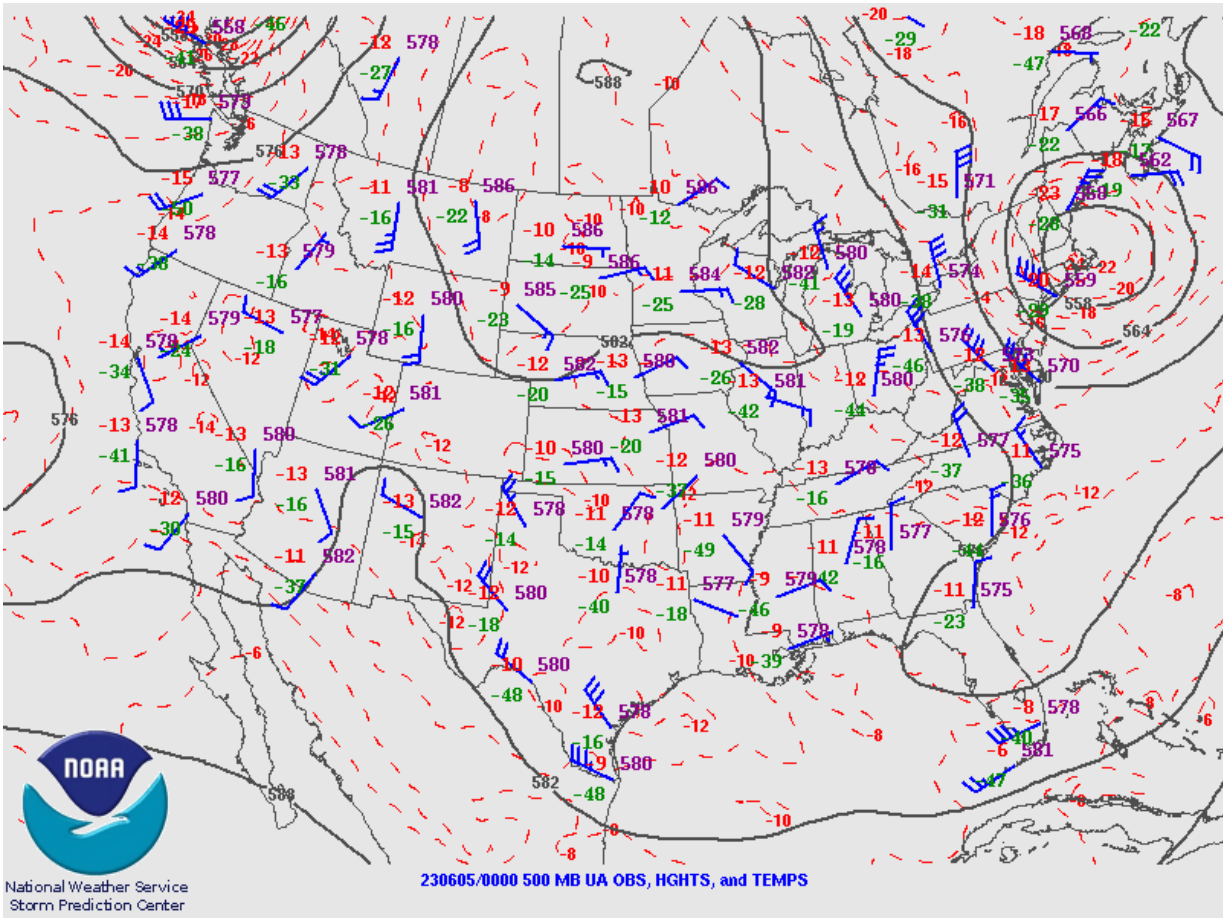


The hourly time series plot for June 3rd, shown above, demonstrates that 24-hour PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the northeast, causing persistently high readings at the Hernando monitor.

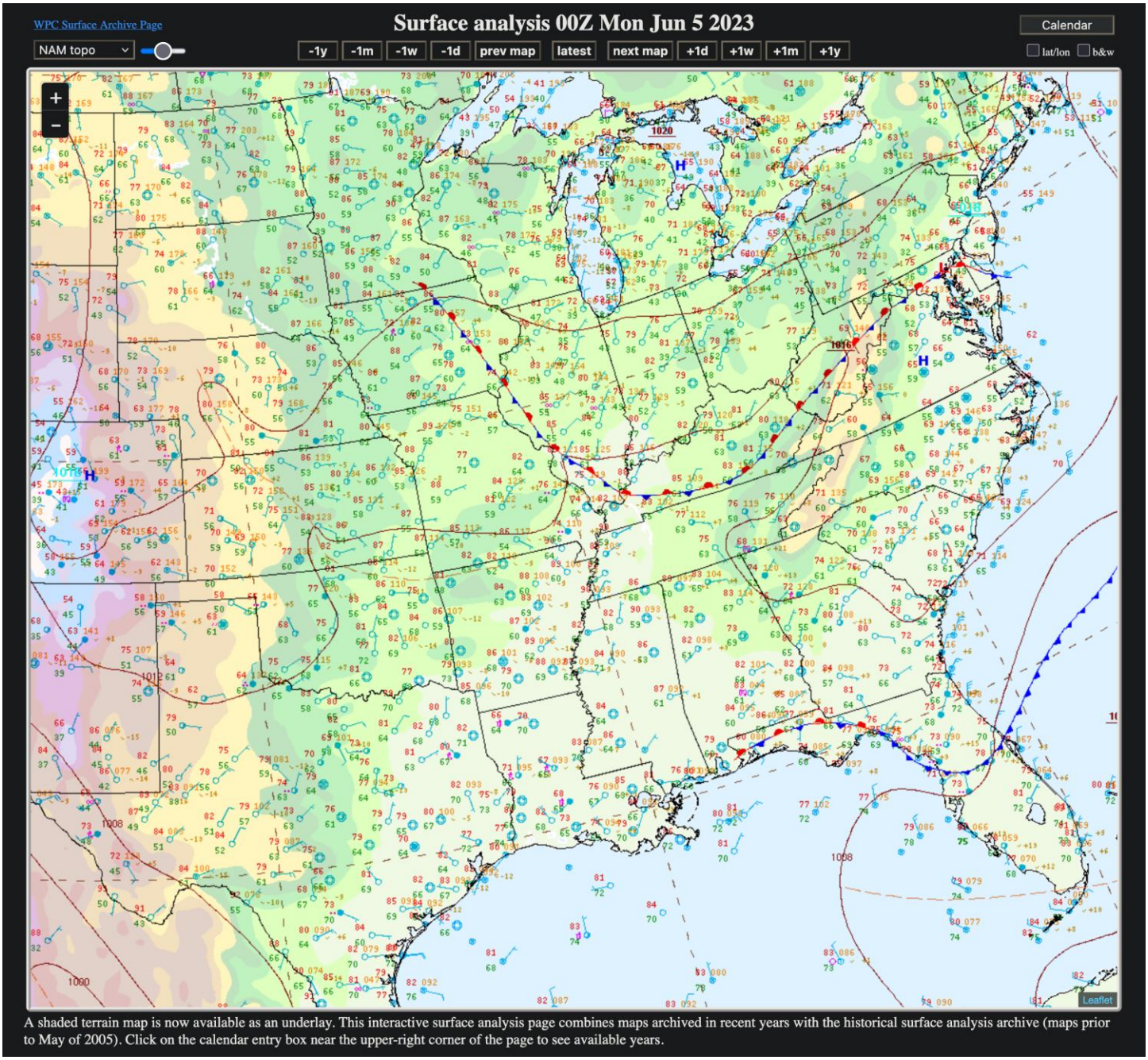
June 4th: At the surface, a persistent High-Pressure system remained in control over the Midsouth, leading to stagnant conditions that trapped residual smoke from previous days within the region.

Aloft, the center of a 500mb ridge was situated directly over the Midsouth, further reinforcing the stable, stagnant atmosphere and suppressing vertical mixing. Just below this, at the 700mb mid-level, a combination of Low-Pressure over the northeastern states and a ridge over the upper Midwest continued to create a distinct transport pathway. This pattern effectively funneled smoke from the Quebec wildfires southward through the Ohio River Valley and into the Midsouth and southeastern United States, ensuring that PM2.5 concentrations remained elevated.

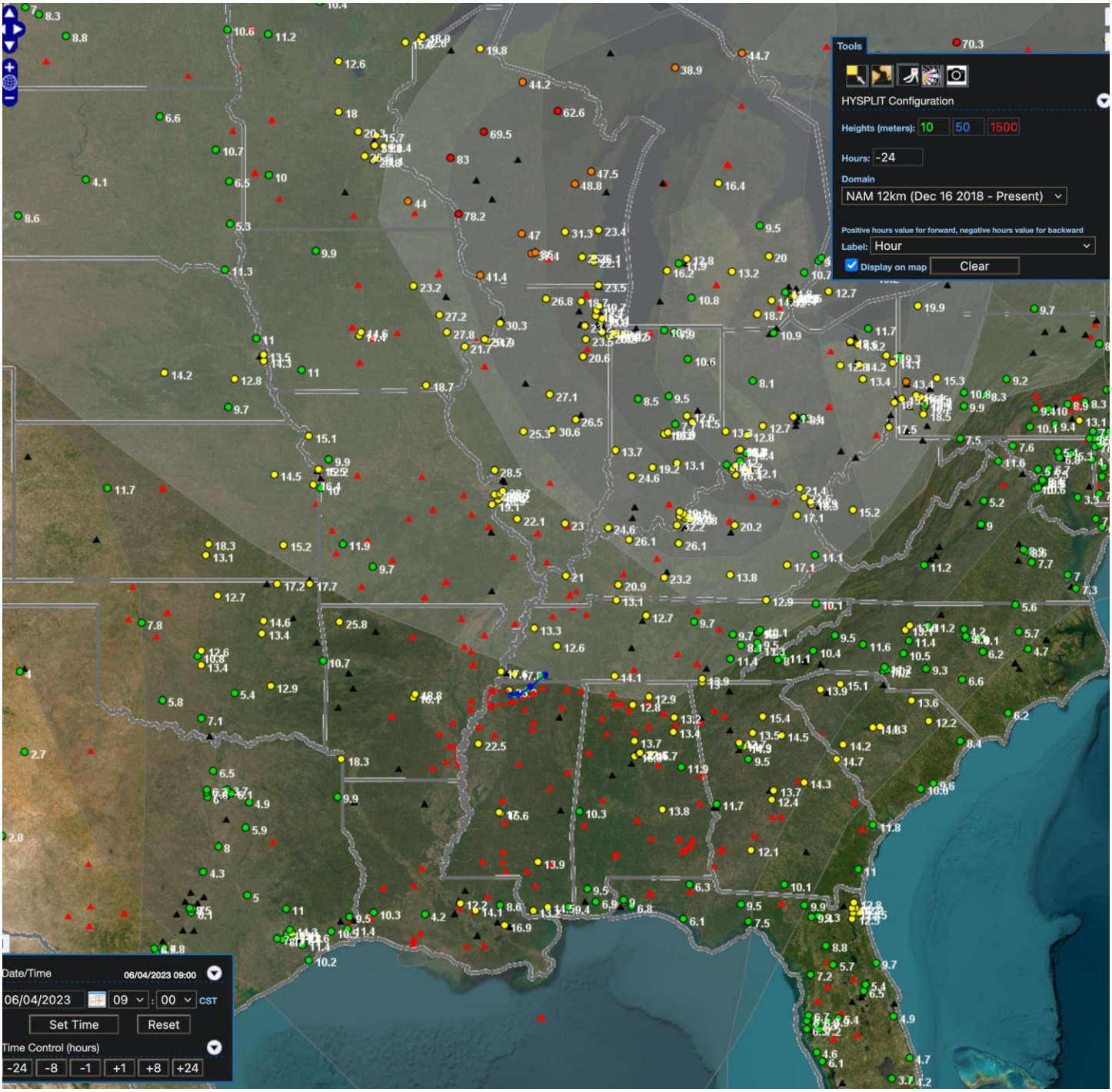

NOAA
National Weather Service
Storm Prediction Center
230605/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4


NOAA
National Weather Service
Storm Prediction Center
230605/0000 500 MB UA OBS, HGHTS, and TEMPS

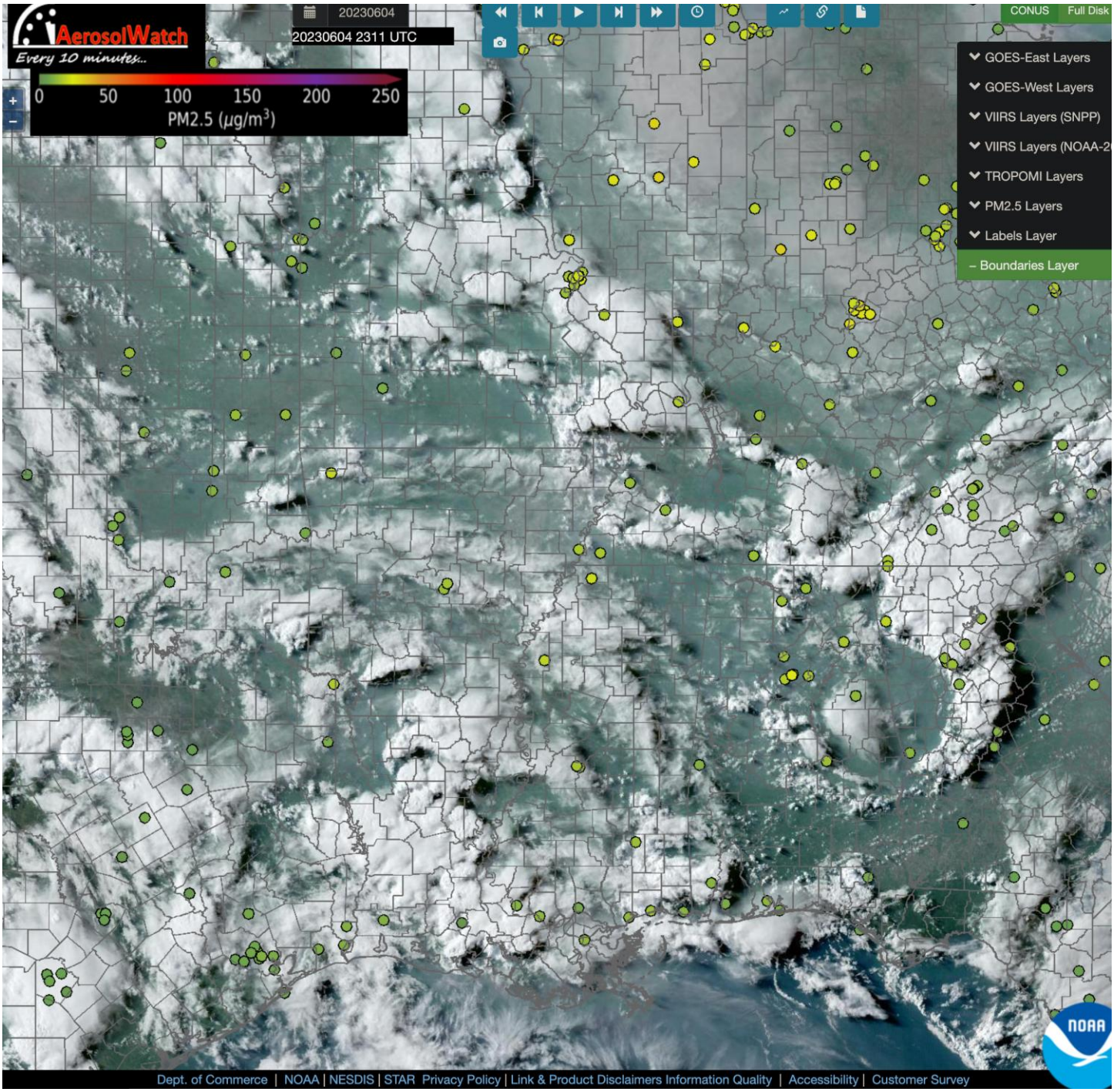
Upper-level charts from June 5th at 00Z (June 4th, 7PM CDT) show at 700mb a Mid-Level Low over Maine and Mid-Level Ridge across the upper Midwest, allowing a pathway for smoke from the Quebec fires to transport into the United States while at 500mb, 500mb chart showing Upper-Level Ridge centered over the Midsouth, reinforcing stagnation across the area.



00Z surface analysis Monday, June 5th (Sunday, June 4th, 7 PM CDT) shows surface High-Pressure situated over the Midwest, helping create stagnant conditions, trapping pre-existing and newly transported smoke from the Canadian fires over the area, elevating PM2.5 values at the Hernando monitor.



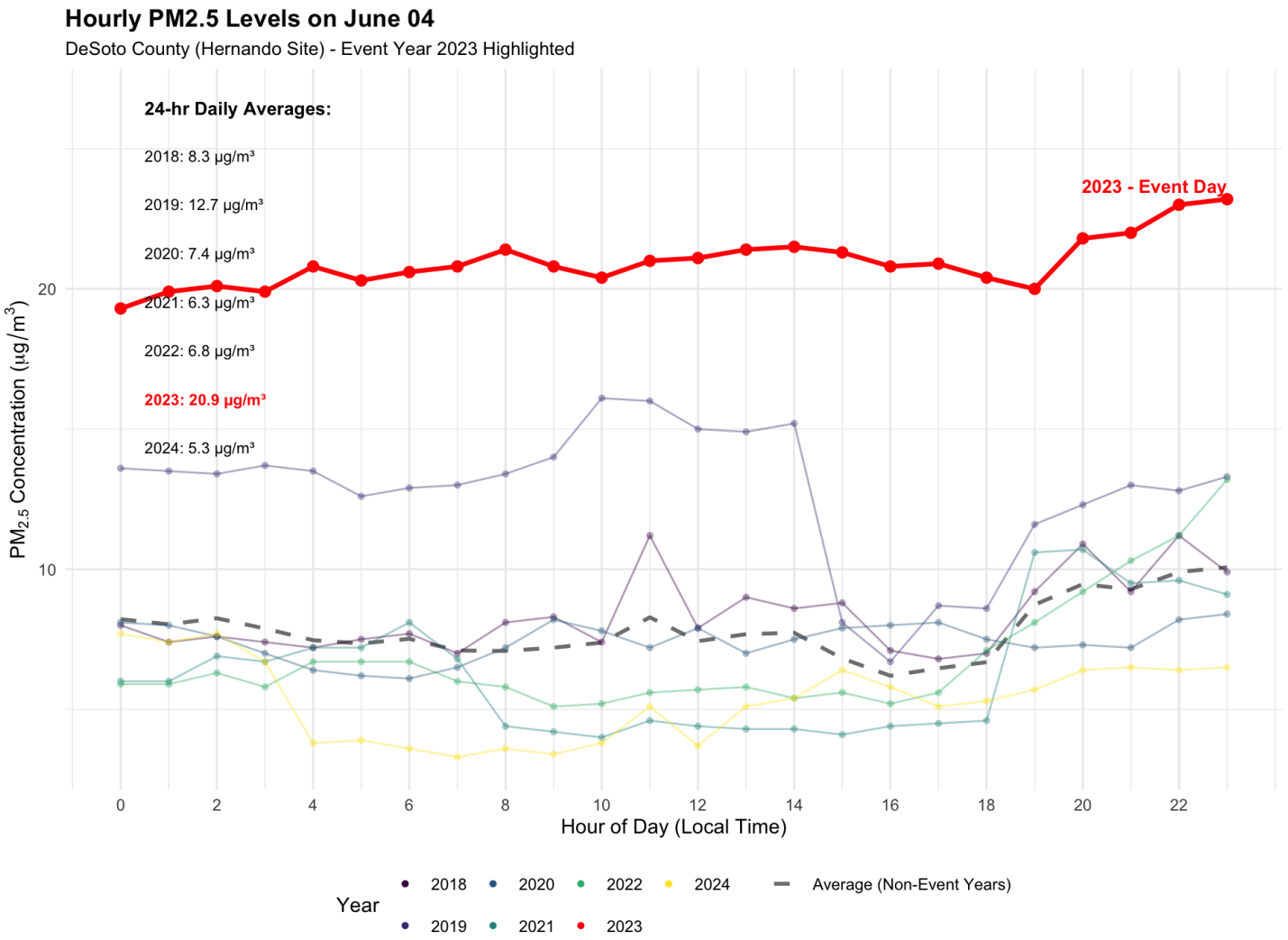
The AirNow-Tech Navigator image for June 4th, 2023, with 24 hour back trajectory over DeSoto county, showing 24-hour parcel movement has been very minimal indicating very stagnant conditions over the Hernando monitor, keeping previous days Canadian smoke in the area all while just to the north, new batch of heavy Canadian wildfire smoke transporting south that will affect the Hernando monitor in the coming days.



The GOES-East True Color image from 2331 UTC (6:31PM CDT) on June 4th, 2023, shows Canadian smoke over the Midsouth that is continually being transported over the area from the northeast, causing PM2.5 values to remain elevated at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/04/23	20.2	20.8	21	20.8	21.7	21.2	21.5	21.7	22.3	21.7	21.3	21.9	22	22.3	22.4	22.2	21.7	21.8	21.3	20.9	22.7	22.9	23.9	24.1	21.85	24.1

Hourly PM2.5 values at the Hernando monitor were in the twenties all day on Jun 4th, as Canadian smoke-filled air-mass from previous days transport trapped by stagnation and continued transport of smoke into the Midsouth from the northeast, resulting in a PM2.5 24-hour daily average of 21.85 µg/m^3.

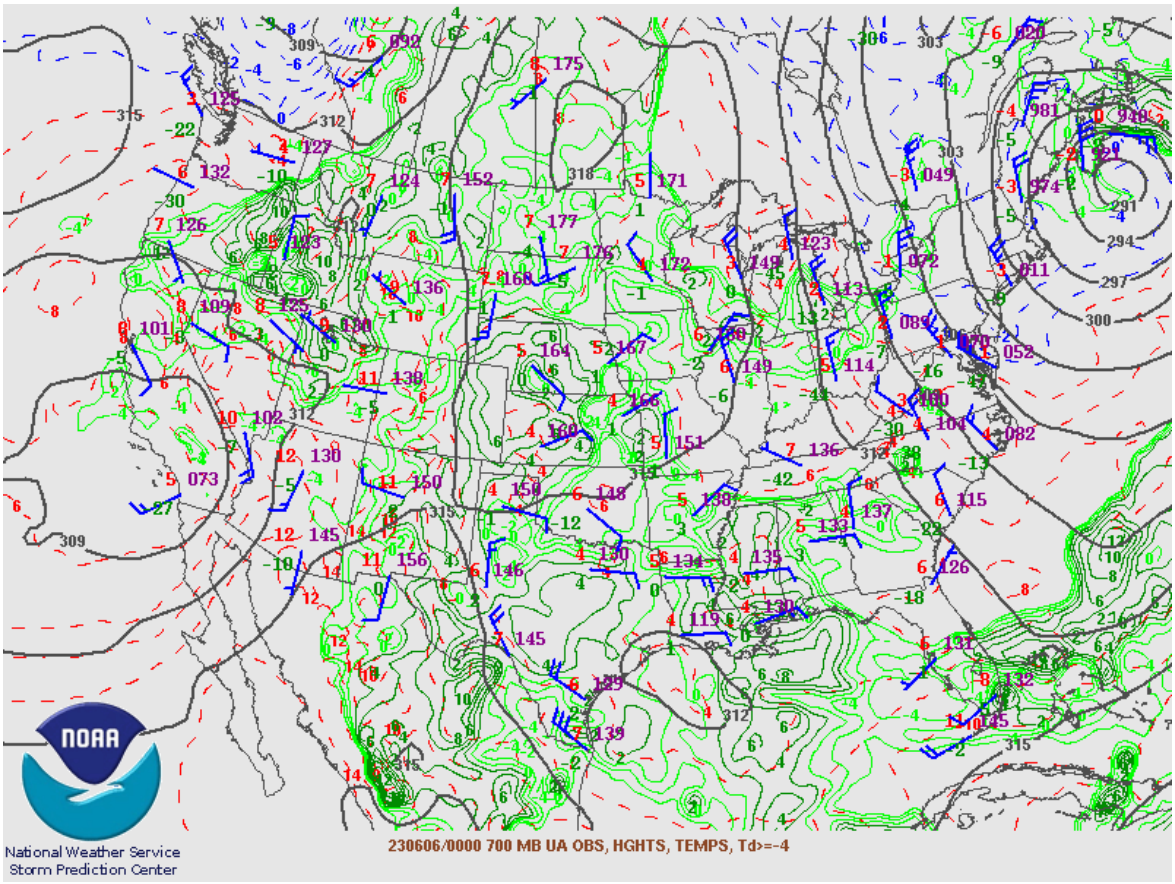


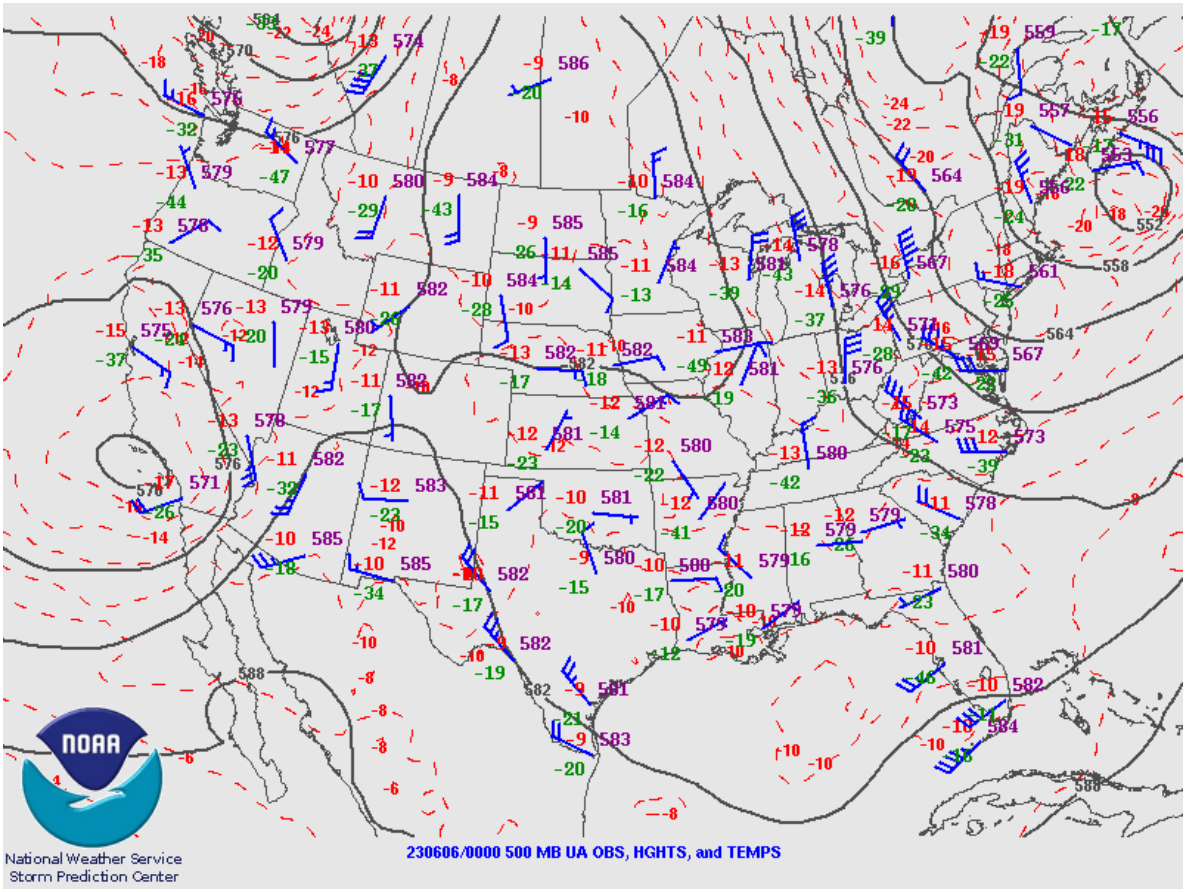
The hourly time series plot for June 4th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the northeast, causing persistently high readings at the Hernando monitor.

June 5th: On June 5th, elevated PM2.5 concentrations persisted, mirroring the conditions of the previous days. This was primarily due to a large-scale 'omega block' structure in the upper atmosphere, which maintained a steady transport of Canadian wildfire smoke into the Midsouth.

This pattern was characterized by a distinct Upper-Level Low-Pressure system situated off the coast of Maine, working in tandem with a strong Upper-Level Ridge anchored along the U.S.-Canada border north of the Dakotas and Minnesota. This configuration created a direct transport mechanism for the advection of Canadian wildfire smoke deep into the United States.

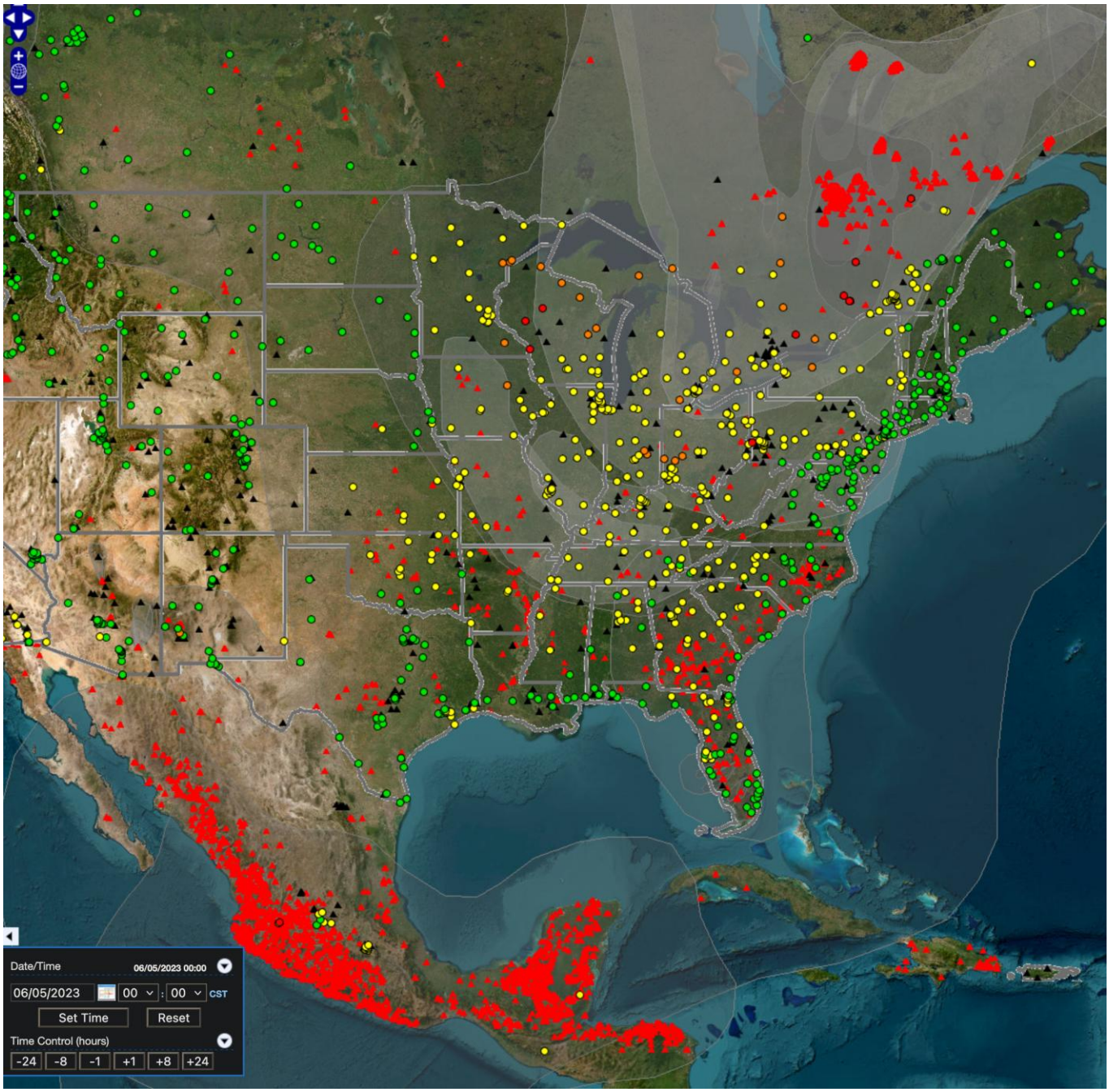
At the surface, a broad area of High-Pressure remained firmly in control over the Midsouth. This resulted in stagnant atmospheric conditions, which limited ventilation and trapped the incoming smoke near the surface.


National Weather Service
Storm Prediction Center
230606/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4

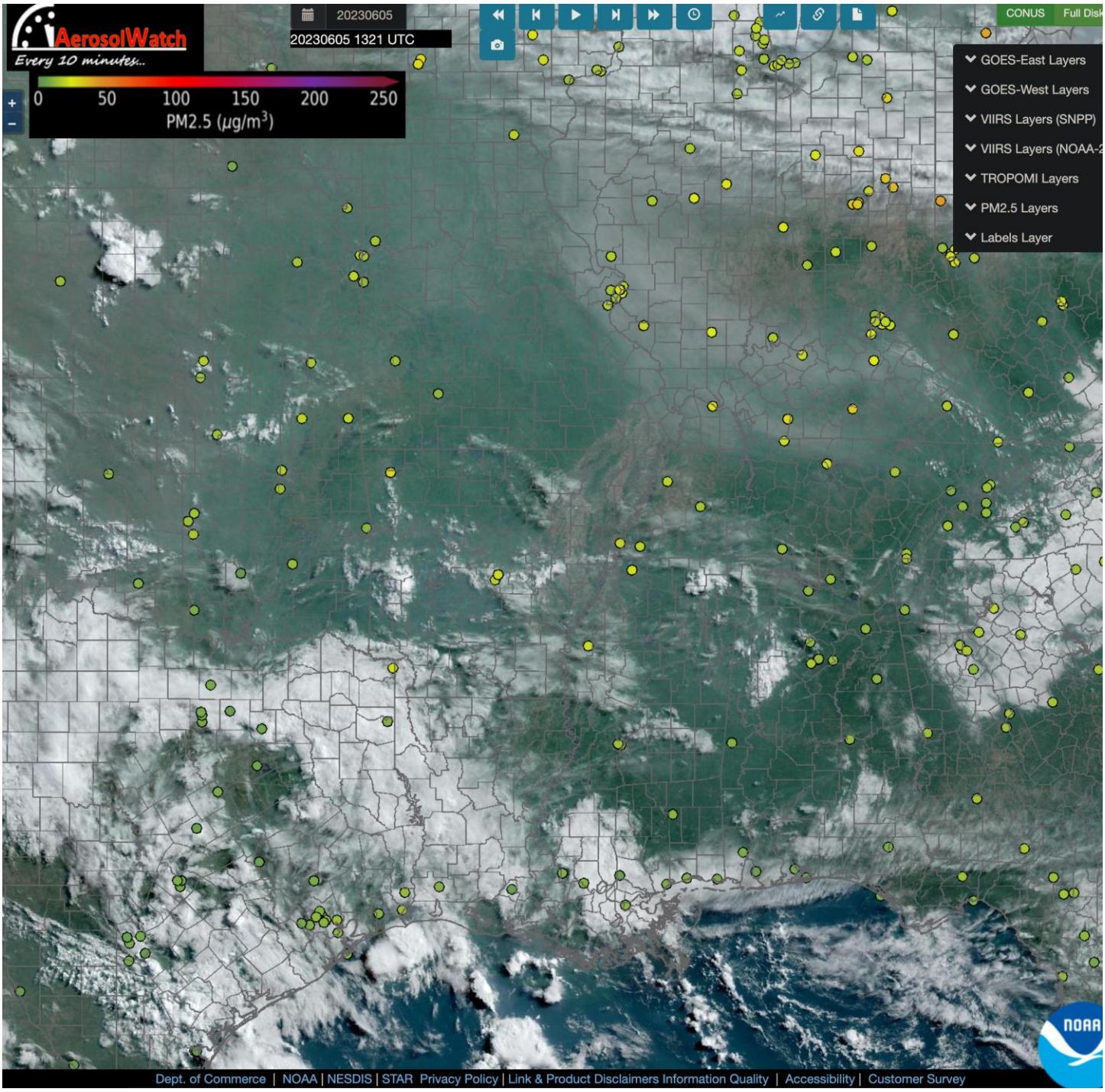

National Weather Service
Storm Prediction Center
230606/0000 500 MB UA OBS, HGHTS, and TEMPS

The upper-level atmospheric charts for 00Z on June 6th (7 PM CDT, June 5th) confirm the persistence of the large-scale pattern driving the smoke event. At the 700mb mid-level, the Omega blocking pattern remained distinct, characterized by a Low-Pressure system over Maine and a corresponding ridge across the upper Midwest. This feature sustained the established pathway for smoke from the Quebec wildfires to be transported southward into the United States.

Concurrently, the 500mb chart reveals a broad Upper-Level Ridge centered along the U.S.-Canada border, which served to reinforce stagnant conditions and atmospheric stability across the Midsouth, thereby inhibiting the dispersion of the transported smoke.



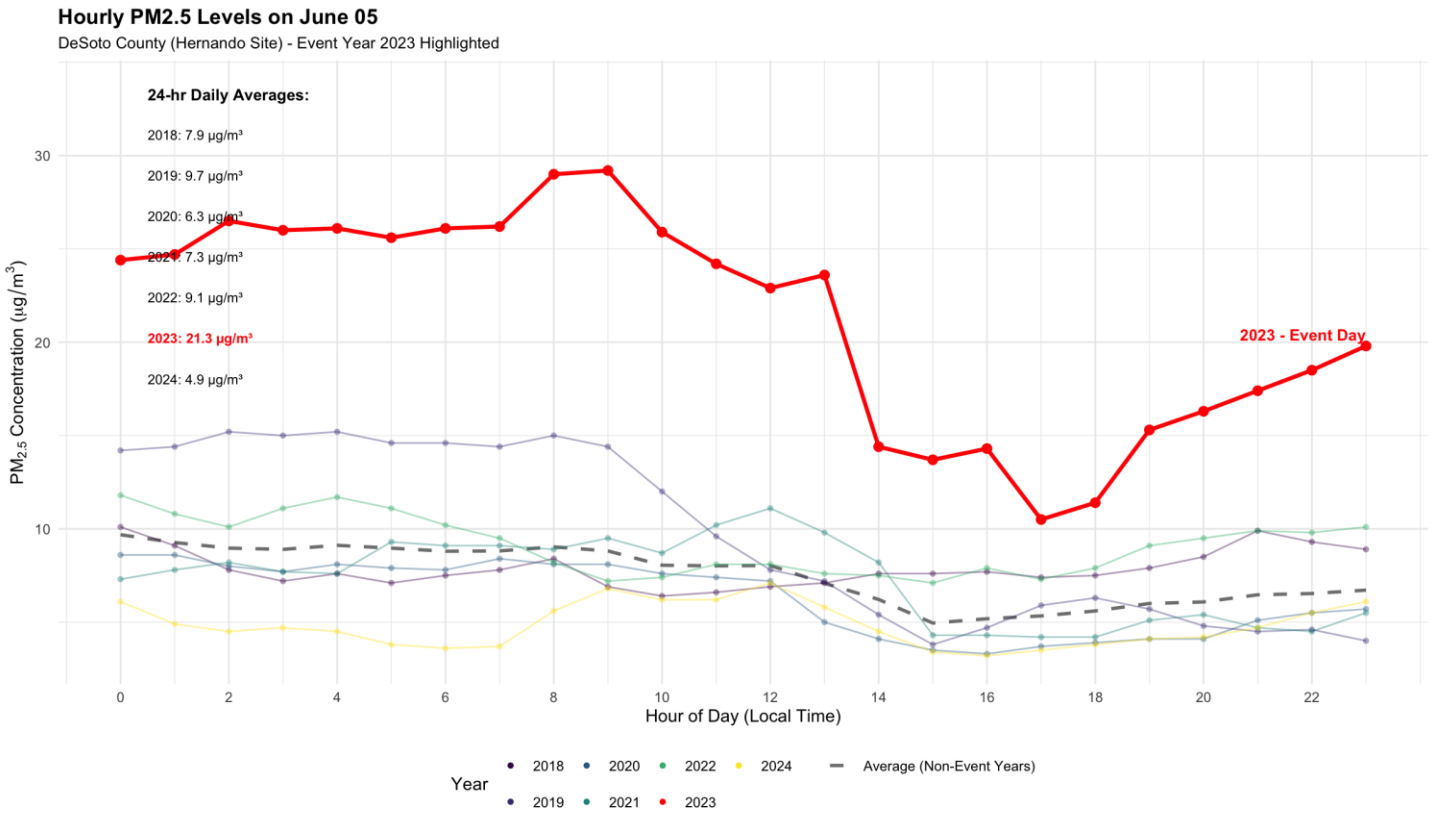
The AirNow-Tech Navigator image for June 5th, 2023, showing new batch of Canadian wildfire smoke transporting south, in-between the UL ridge in the central United States and the UL Low off the coast of Maine, affecting the Hernando monitor, elevating PM2.5 values.



The GOES-East True Color image from 1321 UTC (8:31AM CDT) on June 5th, 2023, shows Canadian smoke over the Midsouth that is continually being transported over the area from the north, causing PM2.5 values to remain elevated at the Hernando monitor.

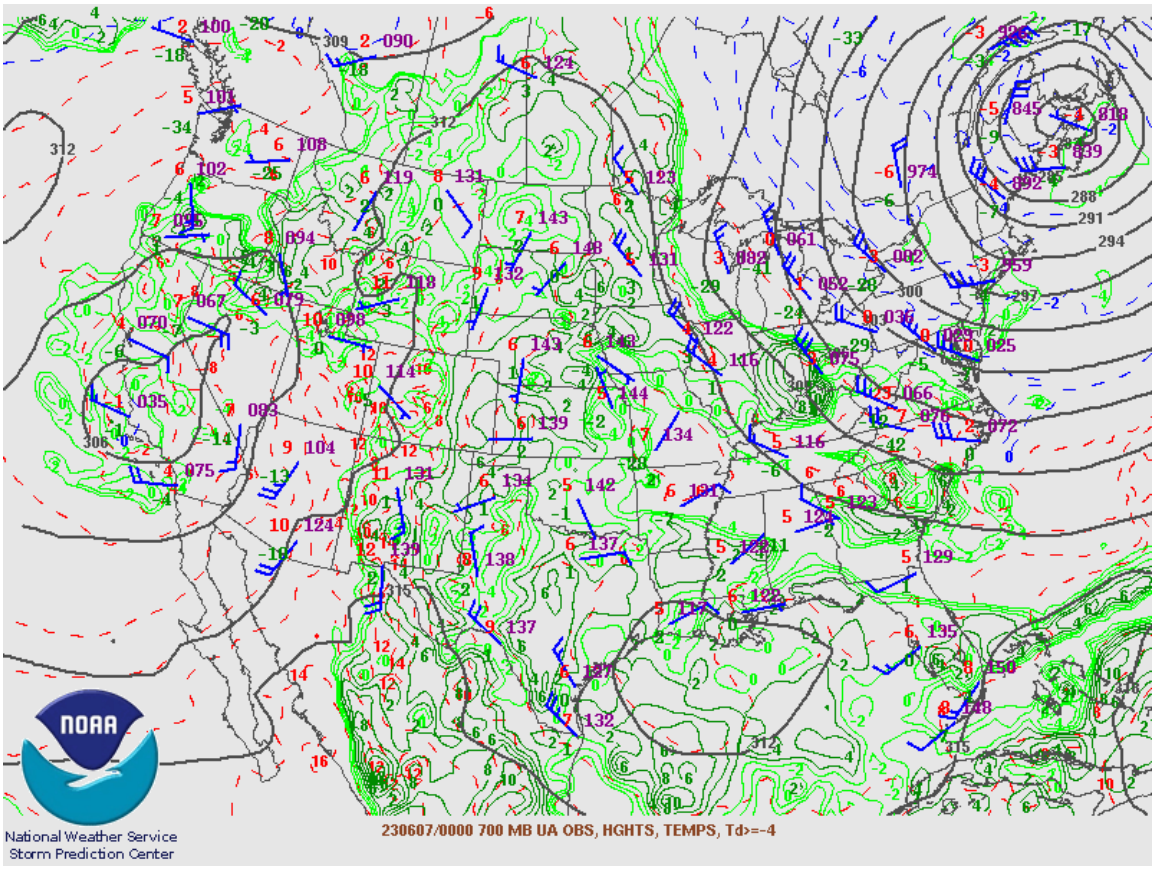
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/05/23	25.3	25.6	27.4	26.9	27	26.5	27	27.1	29.9	30.1	26.8	25.1	23.8	24.5	15.3	14.6	15.2	11.4	12.3	16.2	17.2	18.3	19.4	20.7	22.23	30.1

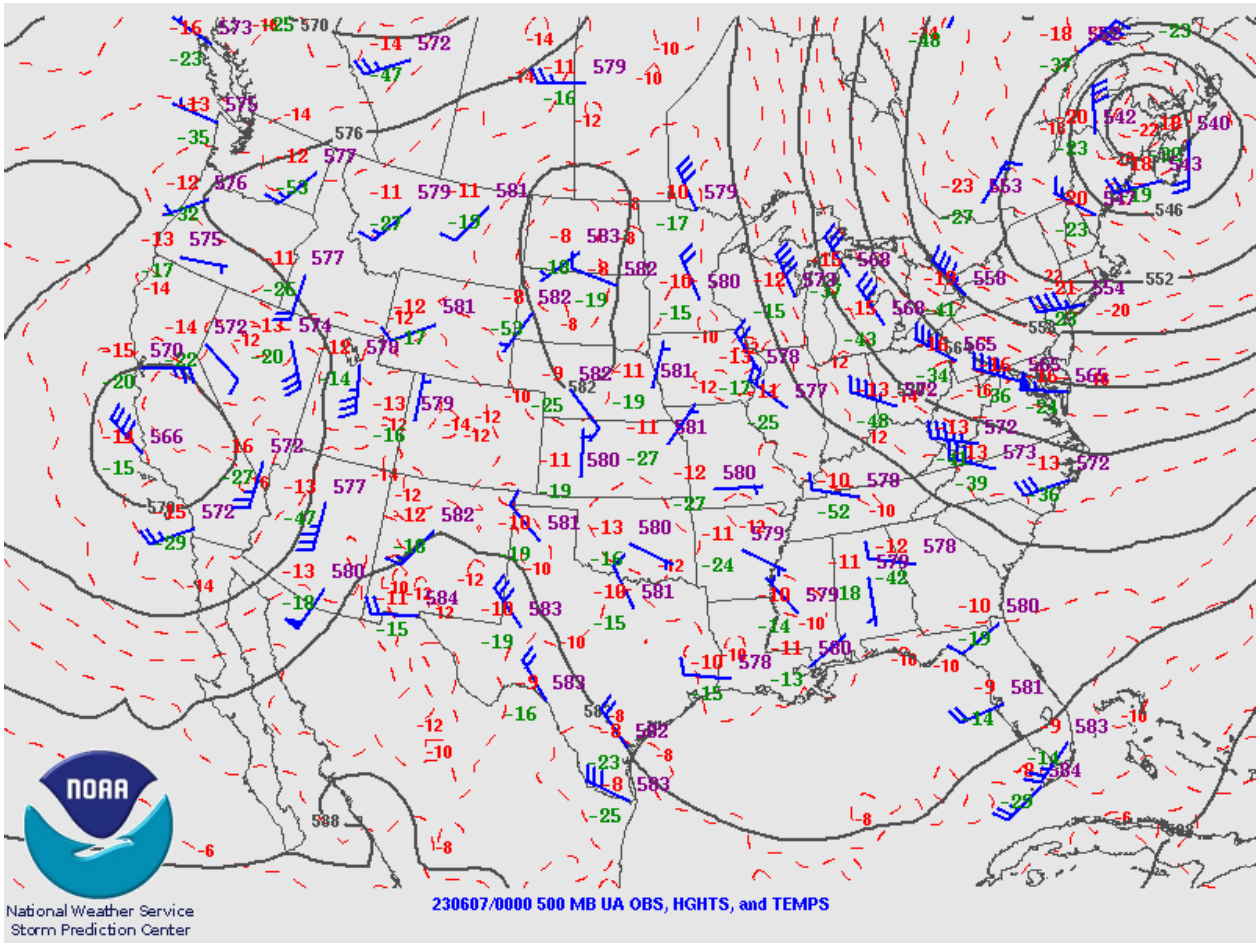
Hourly PM2.5 values at the Hernando monitor were in the twenties most of the day on Jun 5th, as Canadian smoke-filled air-mass from previous days transport trapped by stagnation and continued transport of smoke into the Midsouth from the northeast, resulting in a PM2.5 24-hour daily average of 22.23 µg/m^3.



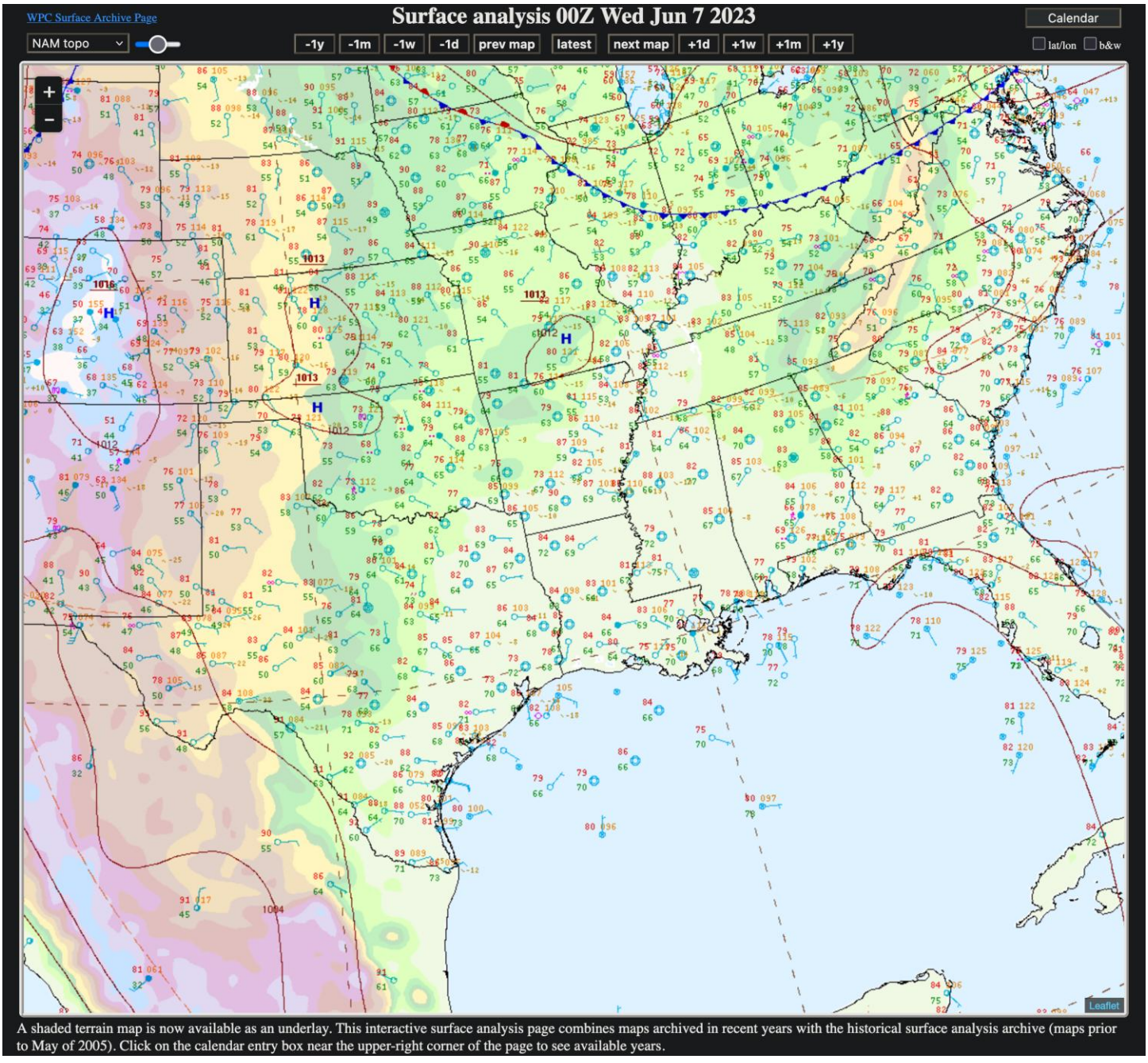
The hourly time series plot for June 5th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the north, causing persistently high readings at the Hernando monitor.

June 6th: Synoptic setup remains the same as aforementioned omega block is locked in over the CONUS at the upper levels, continuing to transport Canadian wildfire smoke deep into the United States while surface High-Pressure dominating the Midsouth continues to create stagnant conditions at the surface, keeping PM2.5 values elevated.

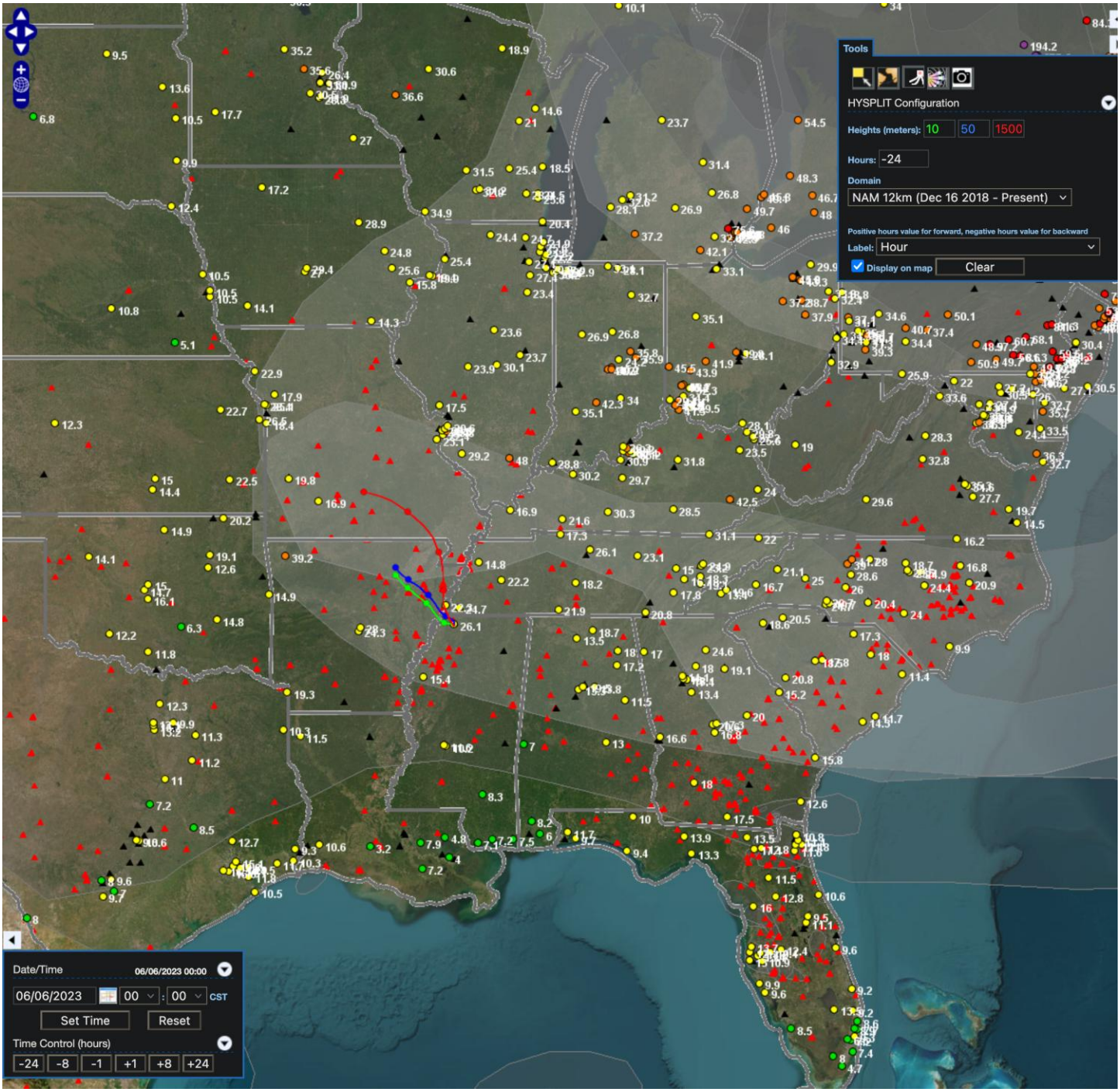

National Weather Service
Storm Prediction Center
230607/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4


National Weather Service
Storm Prediction Center
230607/0000 500 MB UA OBS, HGHTS, and TEMPS

The upper-level atmospheric charts for 00Z on June 7th (7 PM CDT, June 6th) continue to show the persistence of the large-scale pattern driving the smoke event. At the 700mb mid-level, the Omega blocking pattern remained distinct, characterized by a Low-Pressure system over Maine and a corresponding ridge across the upper Midwest. This feature sustained the established pathway for smoke from the Quebec wildfires to be transported southward into the United States.

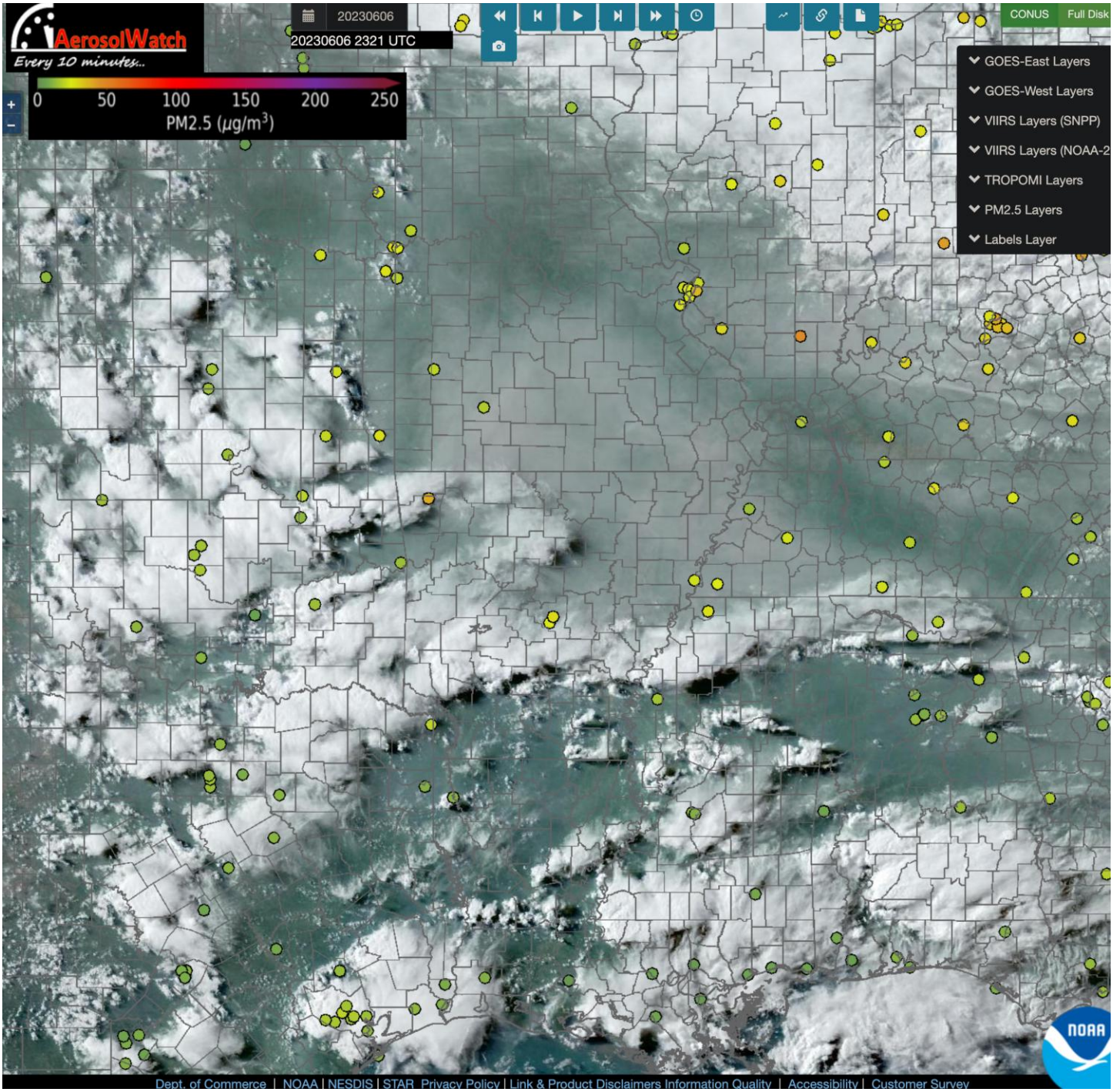


00Z surface analysis Wednesday, June 7th (Tuesday, June 6th, 7 PM CDT) shows surface High-Pressure situated over the Midsouth, helping create stagnant conditions, trapping pre-existing and newly transported smoke from the Canadian fires over the area, elevating PM2.5 values at the Hernando monitor.



The AirNow-Tech Navigator image for June 6th, 2023, depicts a continued influx of Canadian wildfire smoke being transported southward between the Upper-Level Ridge in the central U.S. and the Upper-Level Low off the coast of Maine, directly affecting the Hernando monitor and contributing to elevated PM2.5 values.

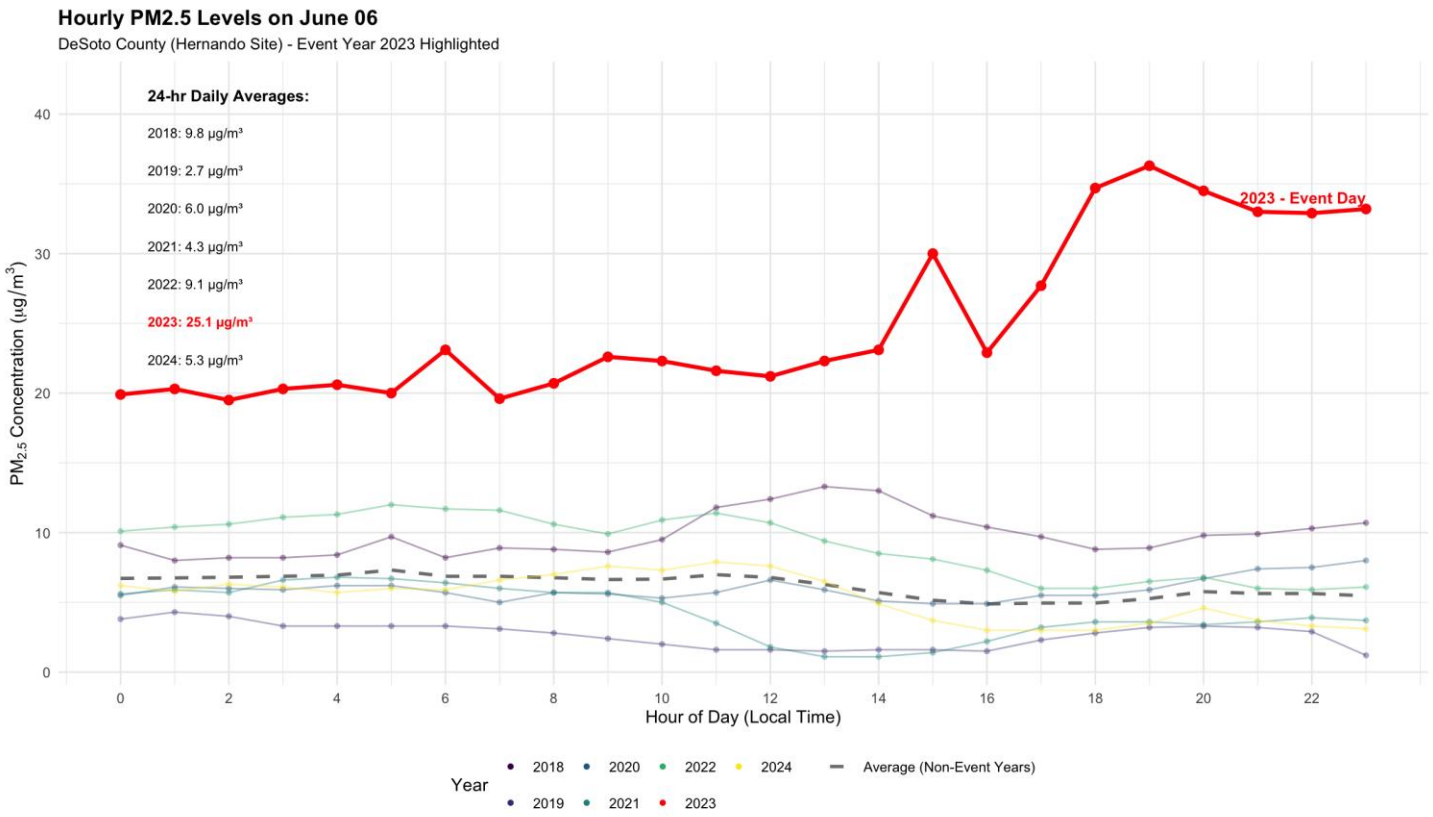
Overlaid on this image are the 24-hour back trajectories ending at the Hernando monitor. These trajectories indicate very slow air movement from the northwest. This suggests that rather than long-range transport directly to the monitor on this day, the prevailing conditions allowed smoke that was already present in the immediate upstream area to slowly drift southeastward over the monitor, sustaining the high PM2.5 concentrations.



The GOES-East True Color image from 2321 UTC (6:31PM CDT) on June 6th, 2023, shows Canadian smoke over the Midsouth that is continually being transported over the area from the north/northwest, causing PM2.5 values to remain elevated at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/06/23	20.8	21.2	21.4	22.2	22.5	21.9	24	20.5	21.6	23.5	23.2	22.5	22.1	23.2	24	30.9	23.8	28.6	35.6	37.2	35.4	33.9	33.8	34.1	26.16	37.2

Hourly PM2.5 values at the Hernando monitor were in the twenties most of the day on Jun 6th, with values increasing into the thirties during the late evening/overnight hours as Canadian smoke-filled air-mass continued to transport into the Midsouth from the north and northwest, resulting in a PM2.5 24-hour daily average of 26.16 µg/m^3.

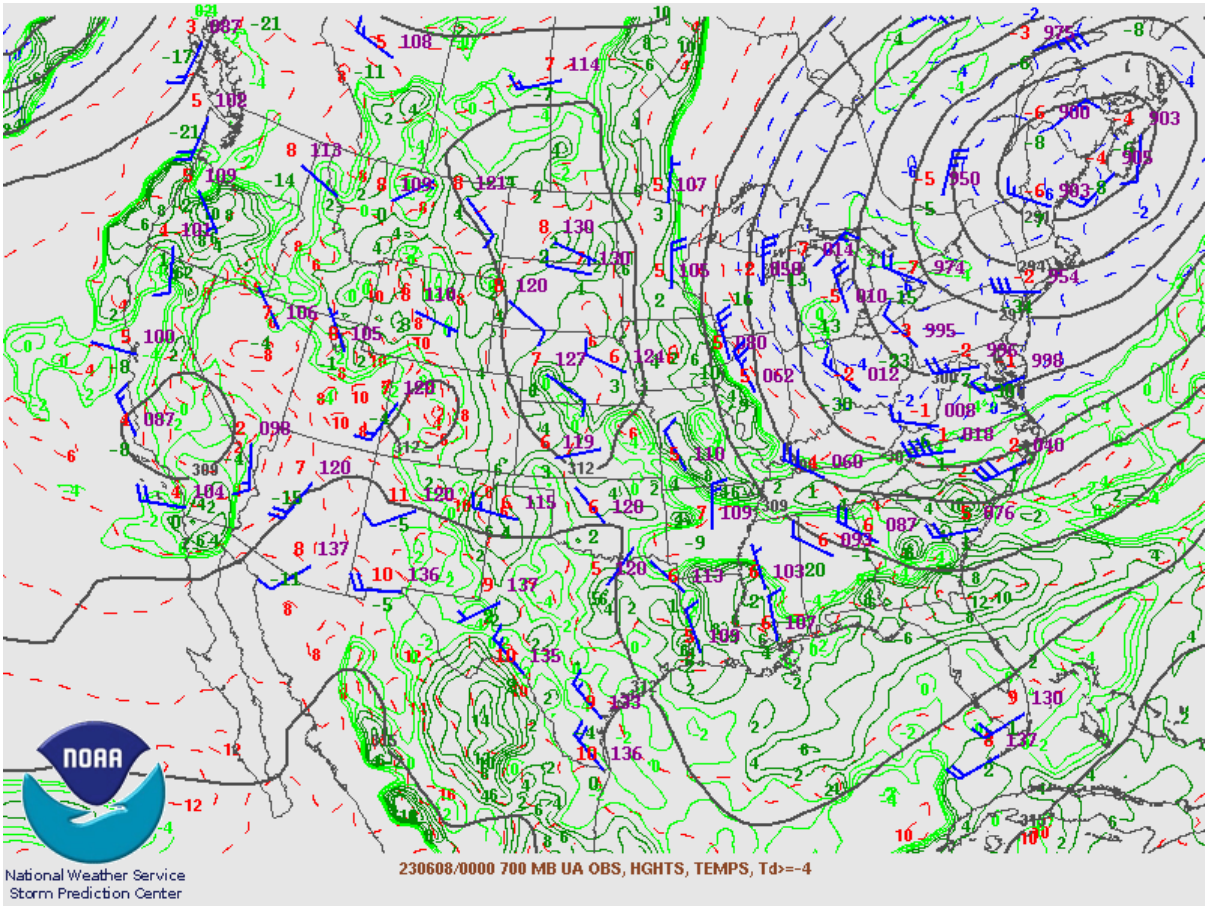


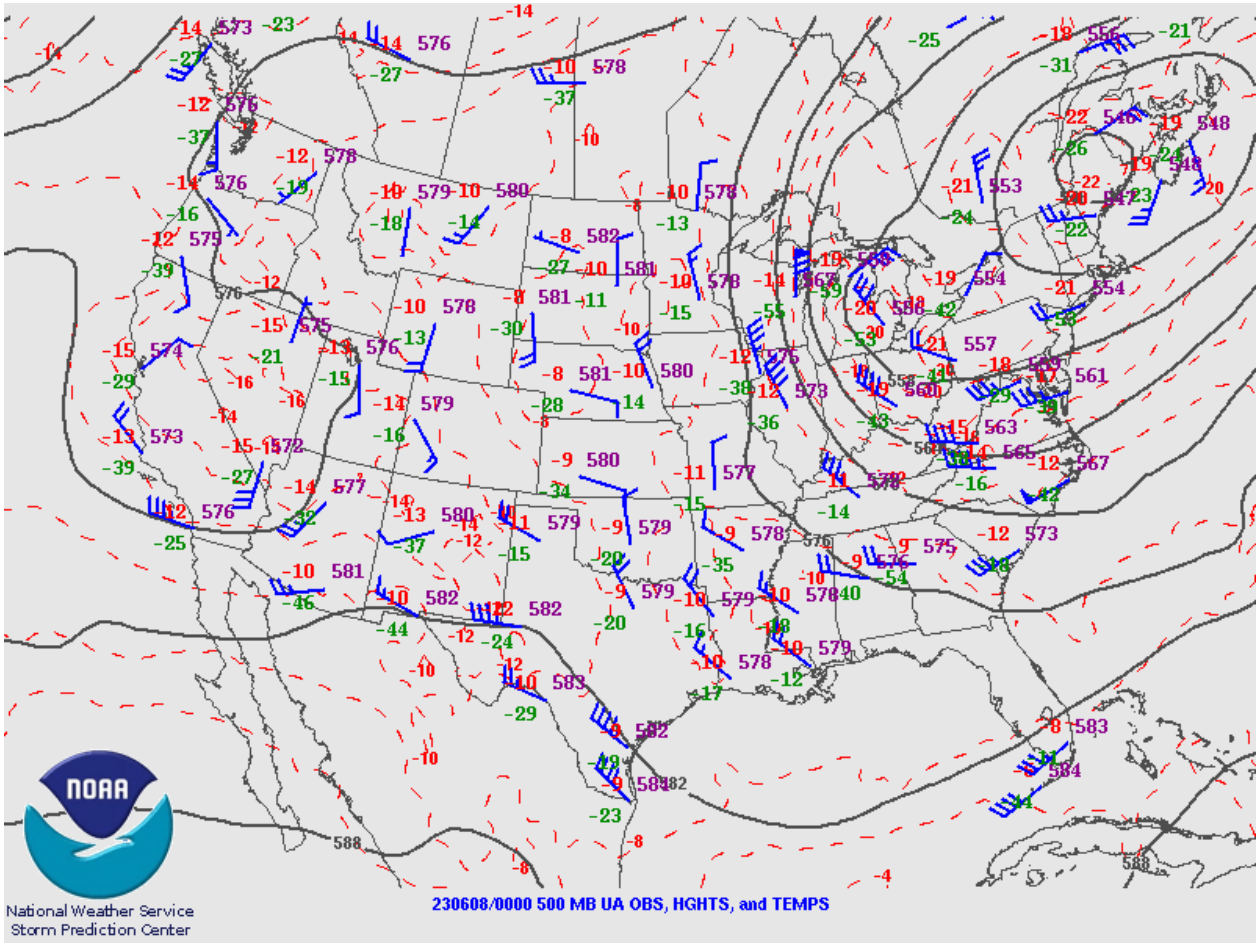
The hourly time series plot for June 6th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the north, causing persistently high readings at the Hernando monitor.

June 7th: On June 7th, persistent emissions from the Quebec wildfires continued to supply a dense smoke plume that impacted a vast area, extending from the northeastern United States, through the Ohio River Valley, and into the Midsouth.

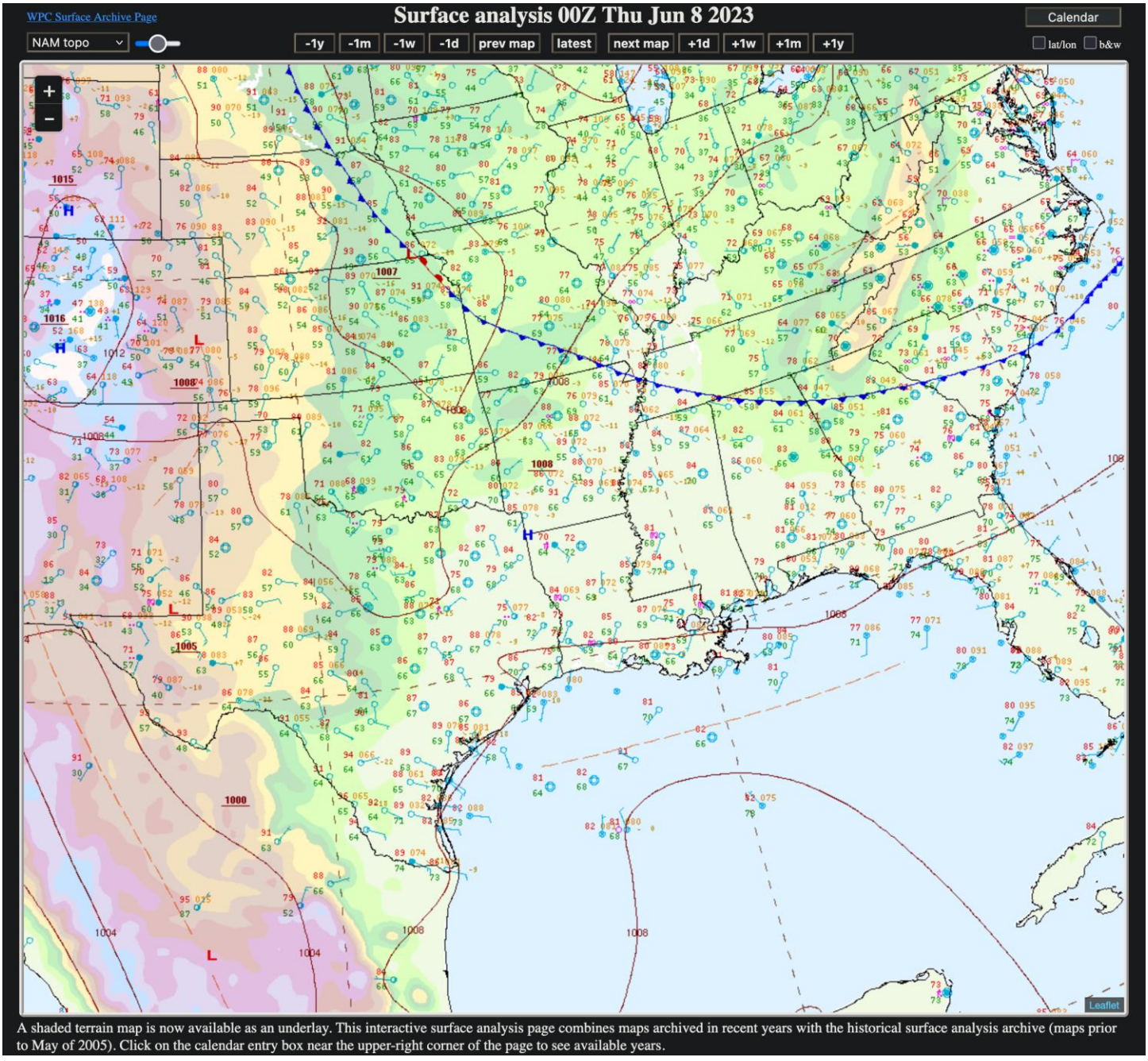
The synoptic pattern responsible for this transport, the omega block, remained largely in effect, albeit with a slight adjustment. The Upper-Level Low, previously situated over Maine, retrograded slightly westward. This shift in the low's position altered the atmospheric steering currents, which more effectively directed the concentrated smoke plume southward into the Midsouth.

Associated with this pattern, a surface frontal boundary advanced through the Ohio River Valley and into the Midsouth. This feature served to introduce a fresh surge of Canadian wildfire smoke into the region, ensuring that PM2.5 concentrations at the Hernando monitor remained elevated.

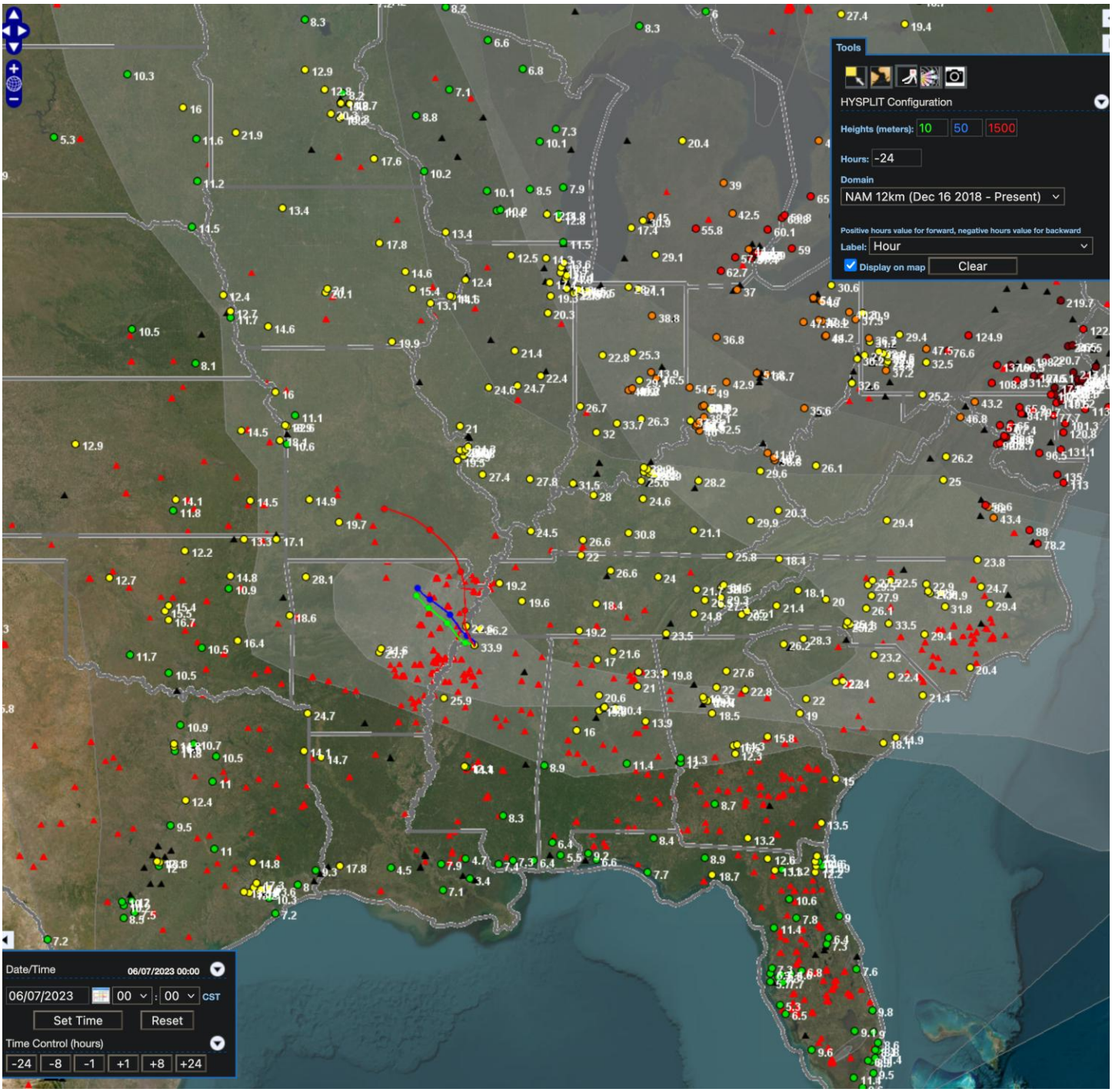

National Weather Service
Storm Prediction Center
230608/0000 700 MB UA OBS, HGHTS, TEMPS, Td>=-4


National Weather Service
Storm Prediction Center
230608/0000 500 MB UA OBS, HGHTS, and TEMPS

The upper-level atmospheric charts for 00Z on June 8th (7 PM CDT, June 7th) confirm the persistence of the large-scale pattern driving the smoke event. Importantly, analyses at both the 700mb mid-level and the 500mb Upper-Level show a slight westward retrograde of the Upper-Level Low. This shift extended the low's influence further west into the Ohio River Valley and the Midsouth, thereby enhancing the established pathway for smoke from the Quebec wildfires to be advected southward into the United States.

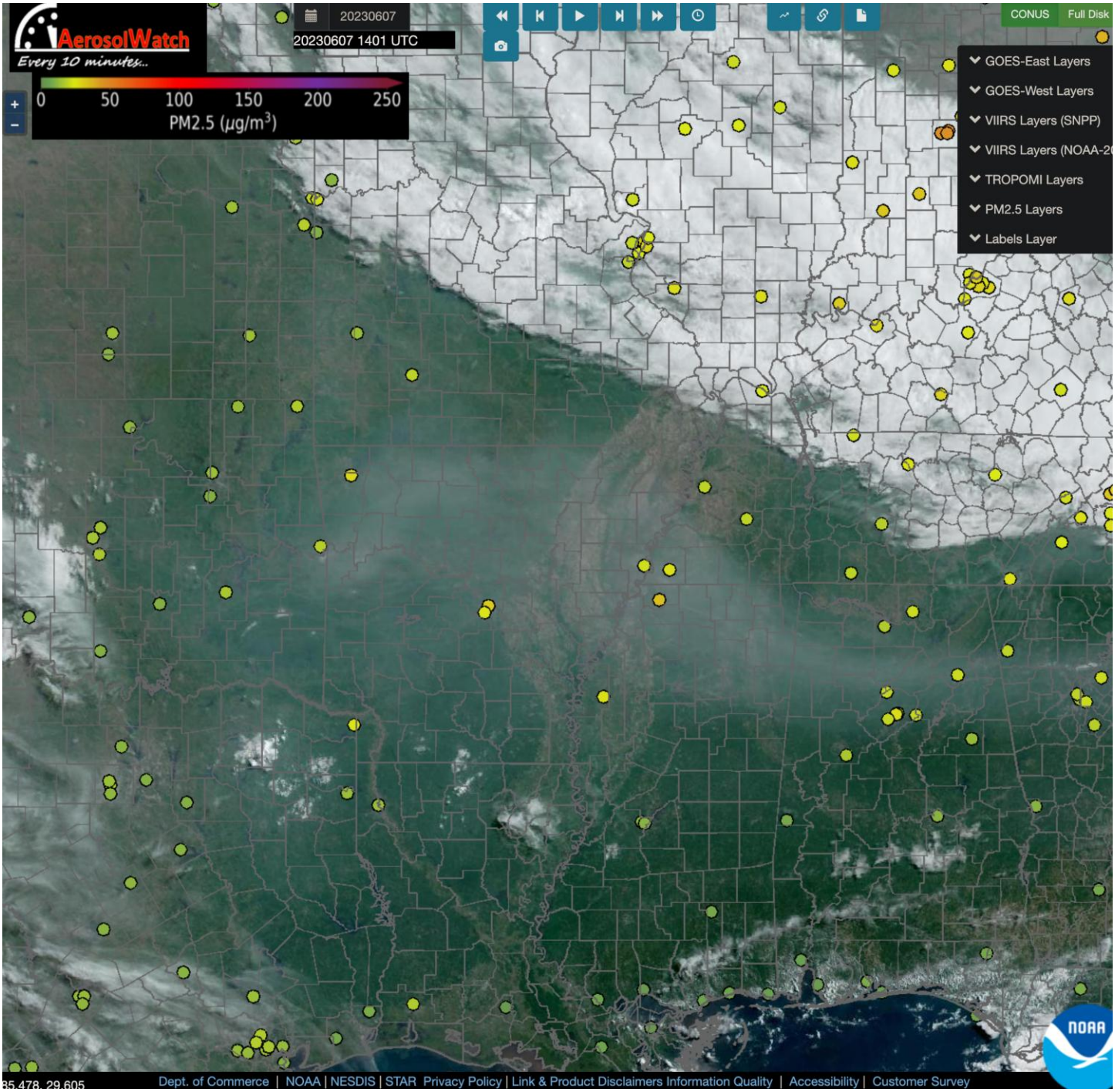


00Z surface analysis Thursday, June 8th (Wednesday, June 7th, 7 PM CDT) shows surface High-Pressure situated over the Arkansas and Louisiana, helping create stagnant conditions, trapping pre-existing and newly transported smoke from the Canadian fires over the area. Located just to the northeast is a frontal boundary that will help issue in a fresh batch of Canadian smoke from the northeast, keeping PM2.5 values elevated at the Hernando monitor.



The AirNow-Tech Navigator image for June 7th, 2023, depicts a continued influx of Canadian wildfire smoke being transported southward between the Upper-Level Ridge in the central U.S. and the Upper-Level Low off the coast of Maine, directly affecting the Hernando monitor and contributing to elevated PM2.5 values.

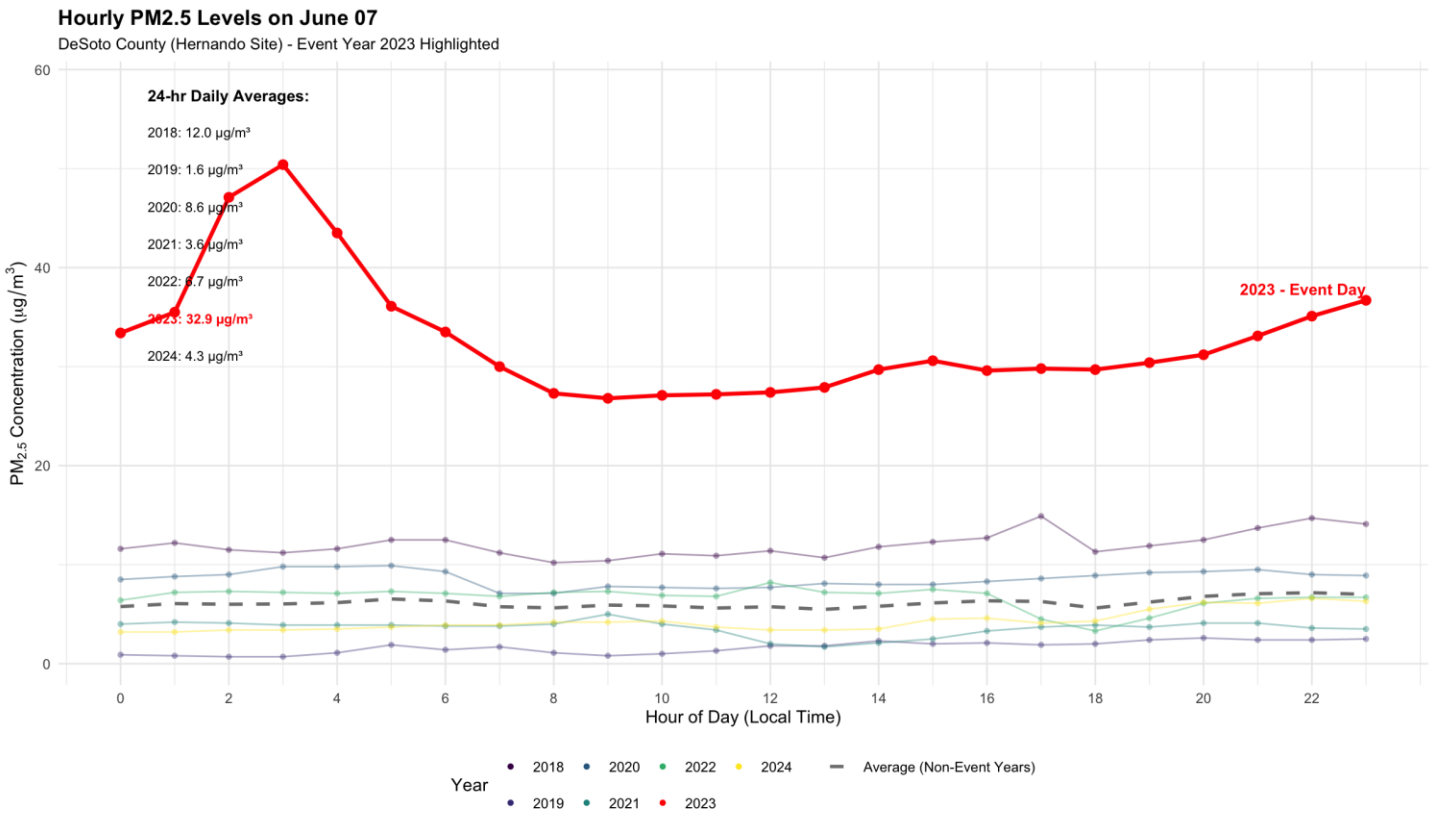
Overlaid on this image are the 24-hour back trajectories ending at the Hernando monitor. These trajectories indicate very slow air movement from the northwest. This suggests that rather than long-range transport directly to the monitor on this day, the prevailing conditions allowed smoke that was already present in the immediate upstream area to slowly drift southeastward over the monitor, sustaining the high PM2.5 concentrations.



The GOES-East True Color image from 1401 UTC (9:01AM CDT) on June 7th, 2023, shows a heavy batch of Canadian smoke directly over the Midsouth that is continually being transported over the area from the north/northwest, causing PM2.5 values to remain elevated at the Hernando monitor.

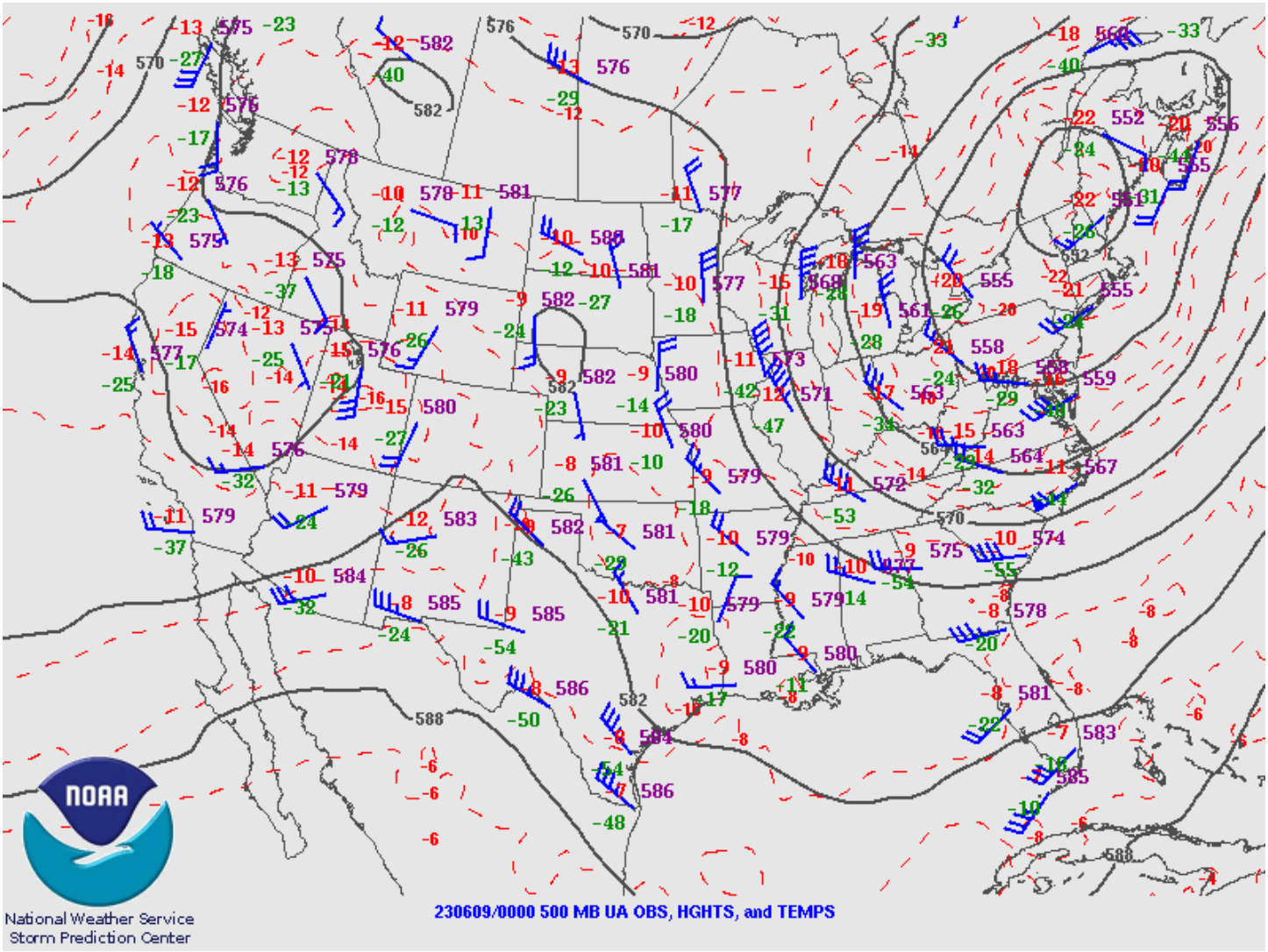
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/07/23	34.3	36.4	49	52.3	45.4	38	34.4	30.9	28.2	27.7	28	28.1	28.3	28.8	30.6	31.5	30.5	30.7	30.6	31.3	32.1	34	36	37.6	33.95	52.3

Hourly PM2.5 values at the Hernando monitor were elevated all day on Jun 7th, with one hour values increasing into the forties and fifties during the early morning hours as Canadian smoke-filled air-mass continued to transport into the Midsouth from the north and northwest, with the addition of very stagnant conditions at the surface, trapping smoke, resulting in a PM2.5 24-hour daily average of 33.95 µg/m^3.

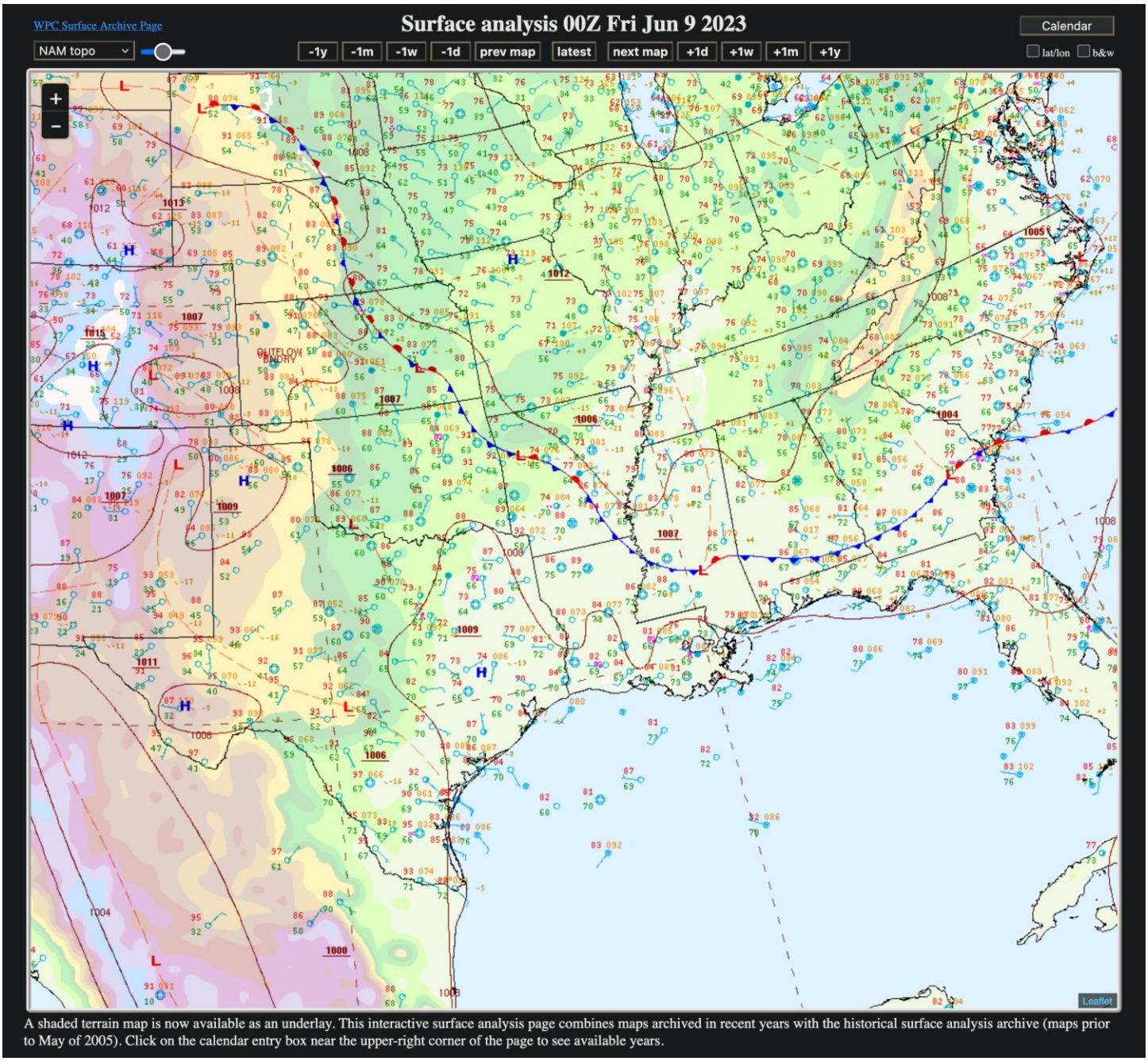


The hourly time series plot for June 7th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the north, causing persistently high readings at the Hernando monitor.

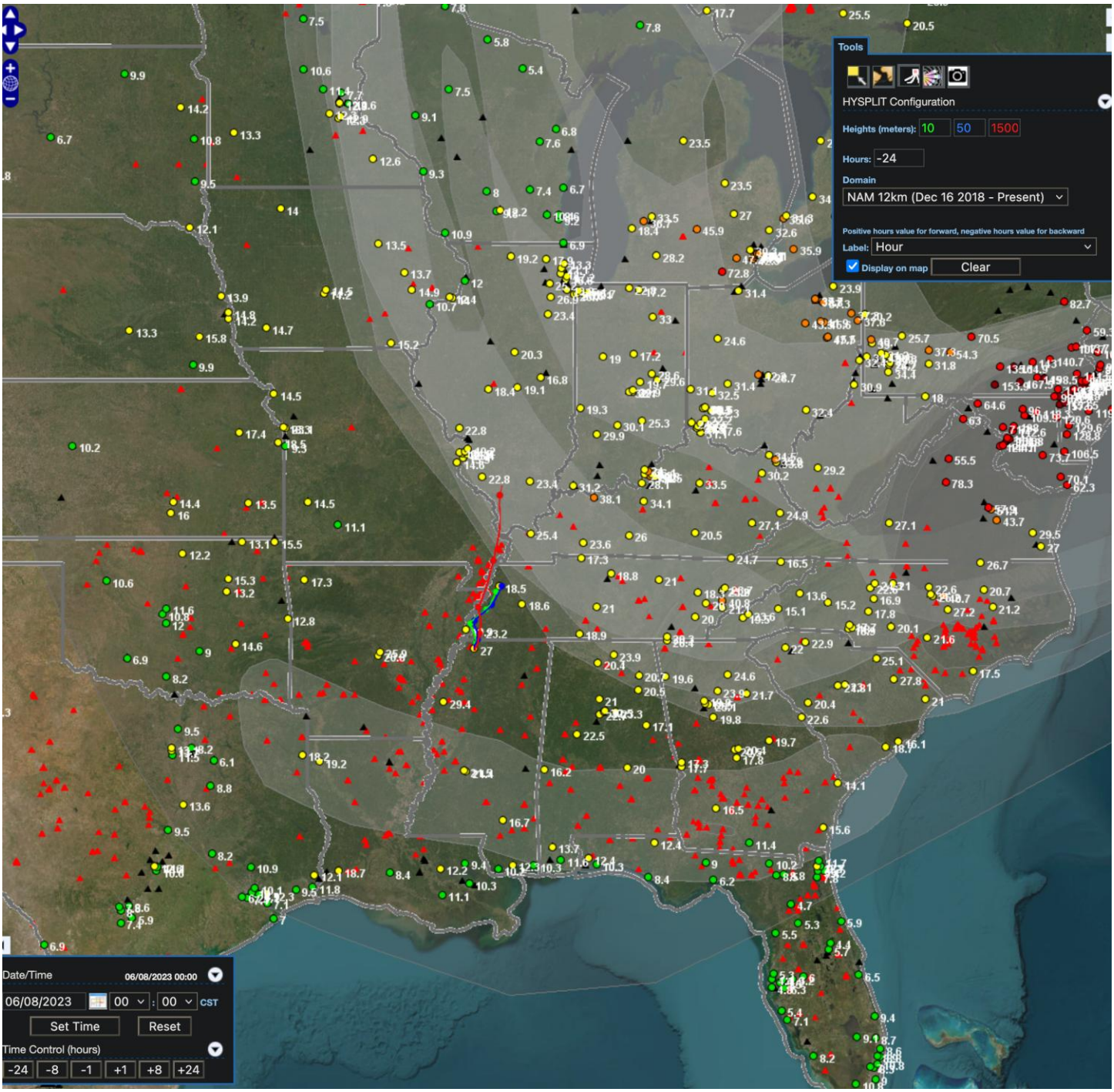
June 8th: June 8th continued to see conditions much like in days previous as the main driver for the Canadian wildfire smoke into the Midsouth was the aforementioned Upper-Level Low across northern New England. While at the surface, a frontal boundary moved through the Midsouth from the northeast, re-enforcing smoke filled air-mass from the Canadian wildfires occurring in Quebec.



The 500mb upper-level chart for 00Z on June 9th (7 PM CDT, June 8th) shows persistent, expansive Upper-Level Low centered over northern New England states, expanding southwestward, across the Ohio River Valley and into the Midsouth, enhancing the established pathway for smoke from the Quebec wildfires to be advected southward deep into the United States.

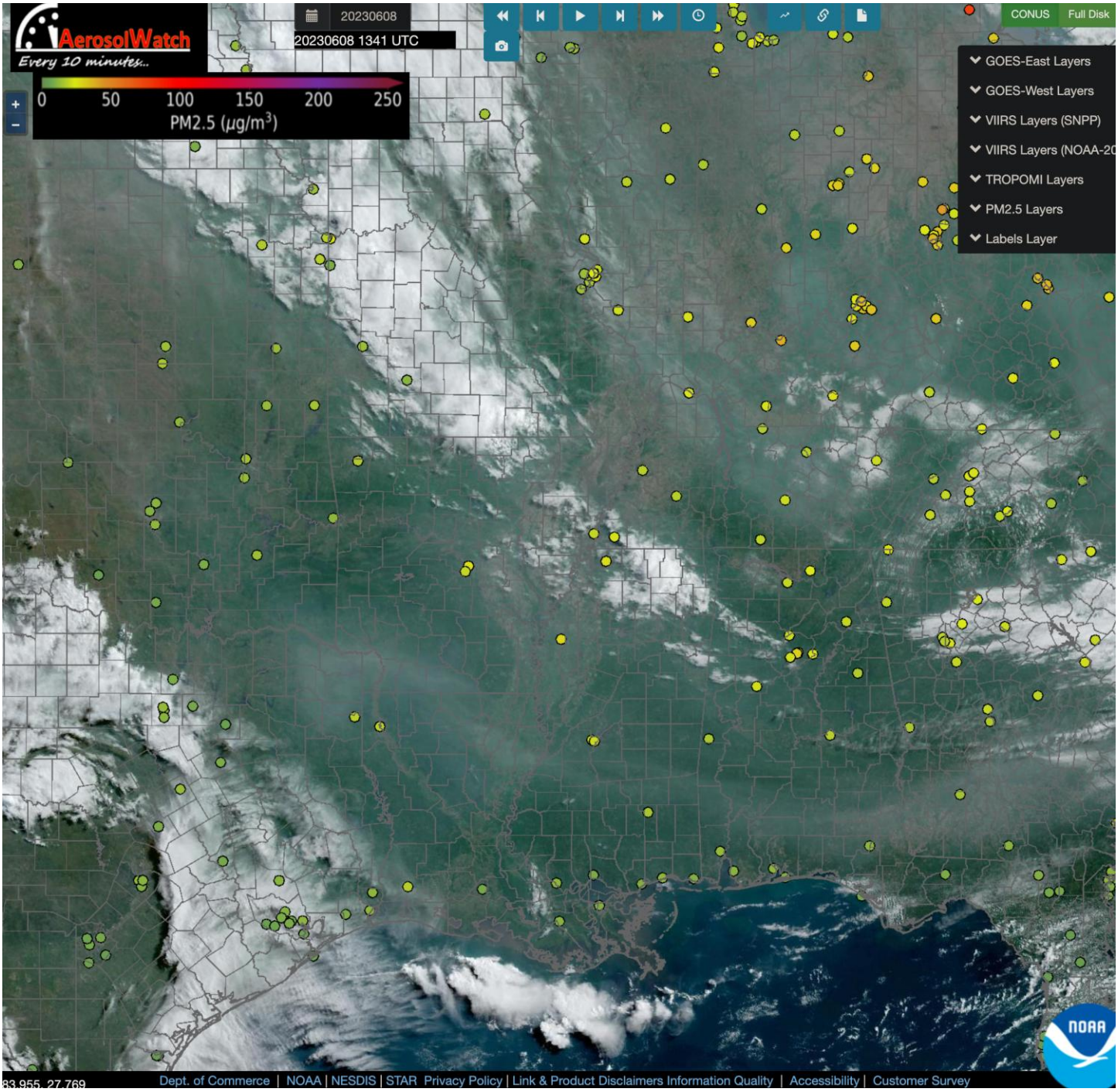


00Z surface analysis Friday, June 9th (Thursday, June 8th, 7 PM CDT) shows a frontal boundary that has moved through the Midsouth, helping issue in a fresh batch of Canadian smoke from the northeast, keeping PM2.5 values elevated at the Hernando monitor.



The AirNow-Tech Navigator image for June 8th, 2023, depicts a continued influx of Canadian wildfire smoke being transported southward thanks to the Upper-Level Low centered over northern New England states, directly affecting the Hernando monitor and contributing to elevated PM2.5 values.

Overlaid on this image are the 24-hour back trajectories ending at the Hernando monitor. These trajectories indicate air movement from the northeast behind the frontal passage, which will help issue in fresh batch of smoke from the Canadian wildfires, elevating PM2.5 concentrations.

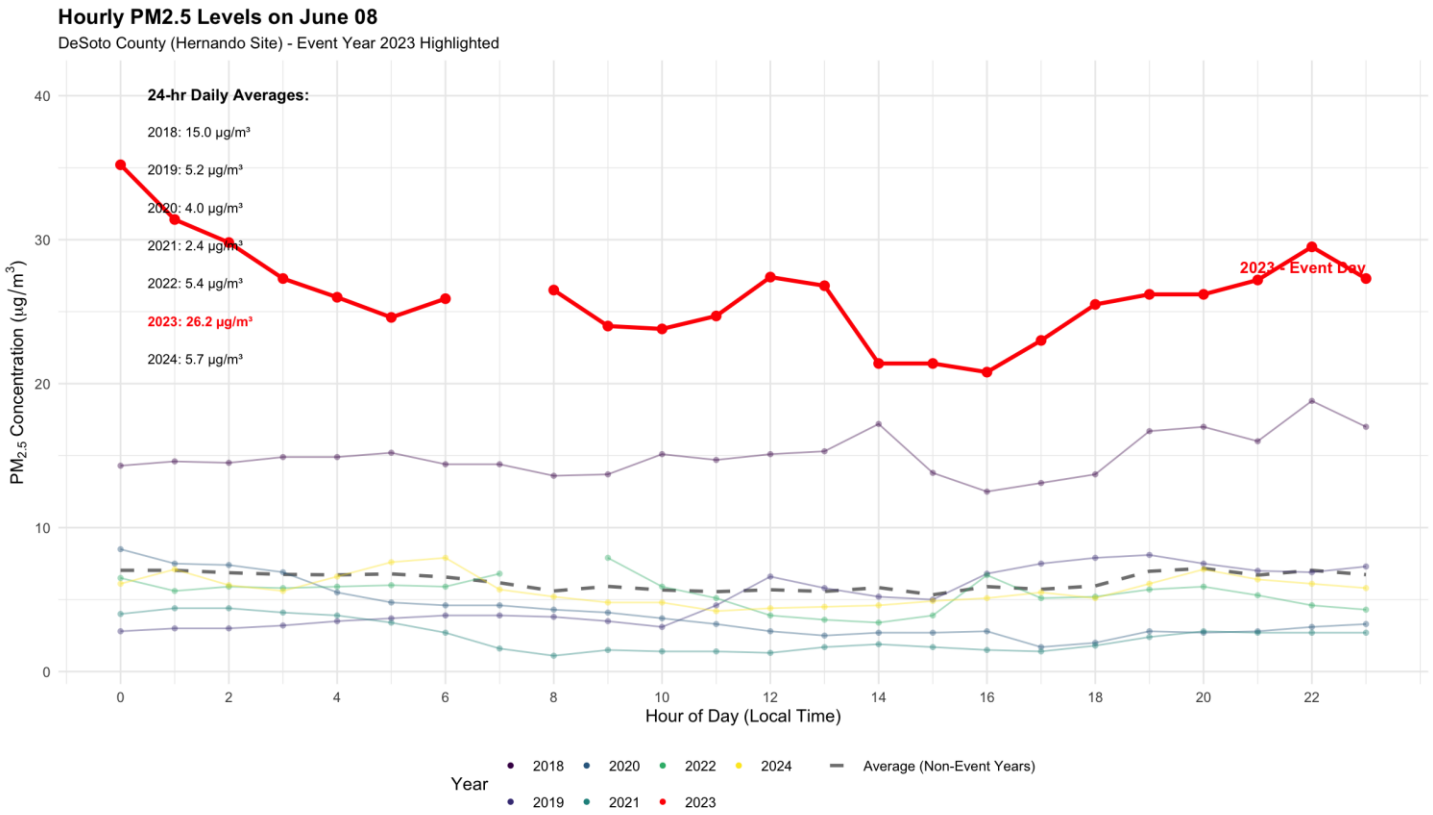


The GOES-East True Color image from 1341 UTC (8:41AM CDT) on June 8th, 2023, shows a batch of Canadian smoke covering much of the Midsouth and southeastern United States, that is continually being transported over the area from the expansive Upper-Level Low centered over the northern New England states, causing PM2.5 values to remain elevated at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/08/23	36.1	32.3	30.7	28.2	26.9	25.5	26.8	22.3	27.4	24.9	24.7	25.6	28.3	27.7	22.3	22.3	21.7	23.9	26.4	27.1	27.1	28.1	30.4	28.2	27.07	36.1

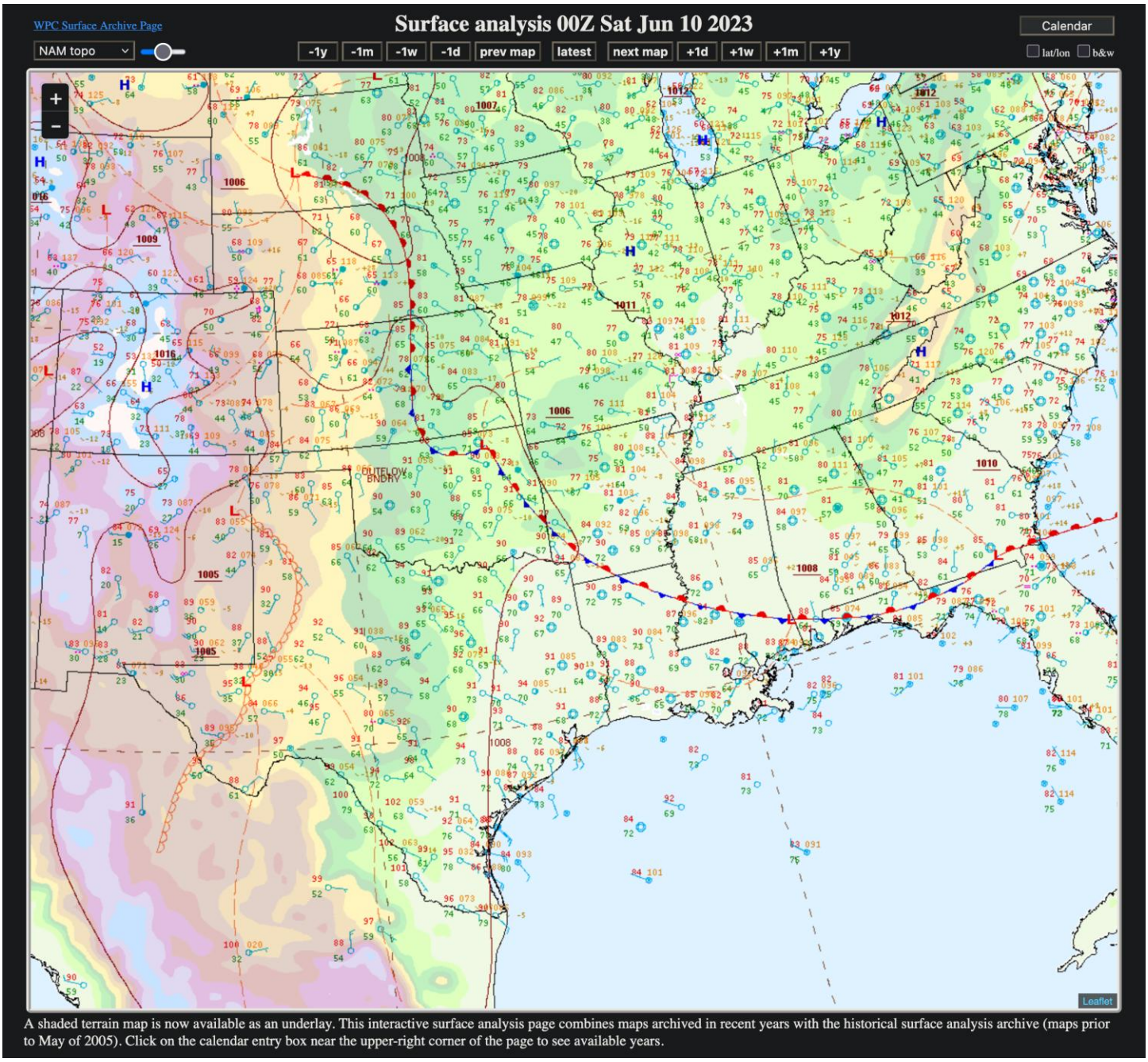
Hourly PM2.5 values at the Hernando monitor were elevated all day on Jun 8th, with one-hour values remaining in the twenties with a couple hours maxing out in the thirties as Canadian smoke-filled air-mass continued to

transport into the Midsouth from the north and northeast, resulting in a PM2.5 24-hour daily average of 27.07 µg/m^3.

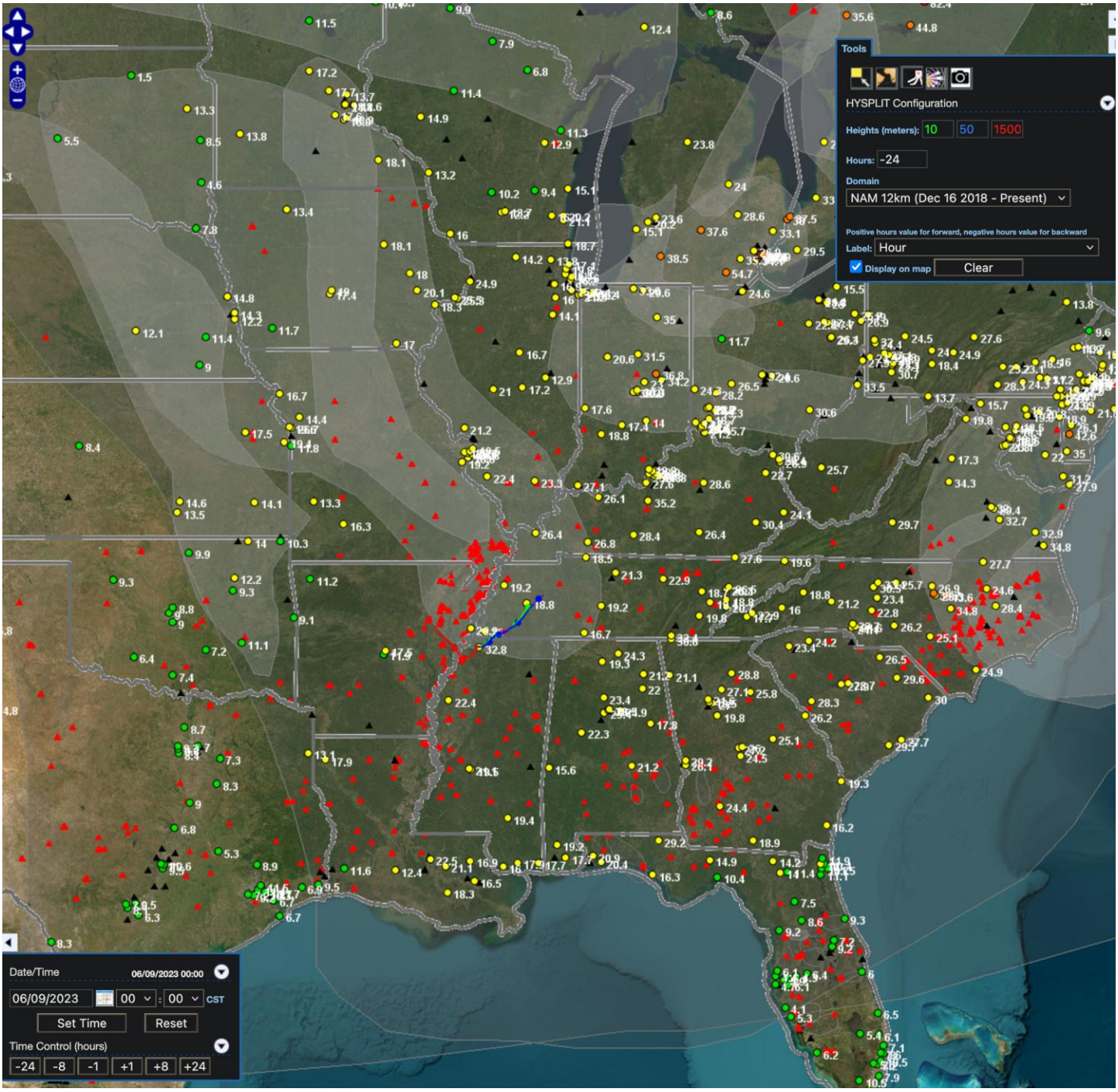


The hourly time series plot for June 8th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the north and northeast, causing persistently high readings at the Hernando monitor.

June 9th: Surface High-Pressure built in in the wake of previous days cold front creating very stable/stagnant conditions across the Midsouth, trapping Canadian wildfire smoke across the area that had move in during the previous days, keeping PM2.5 values elevated.

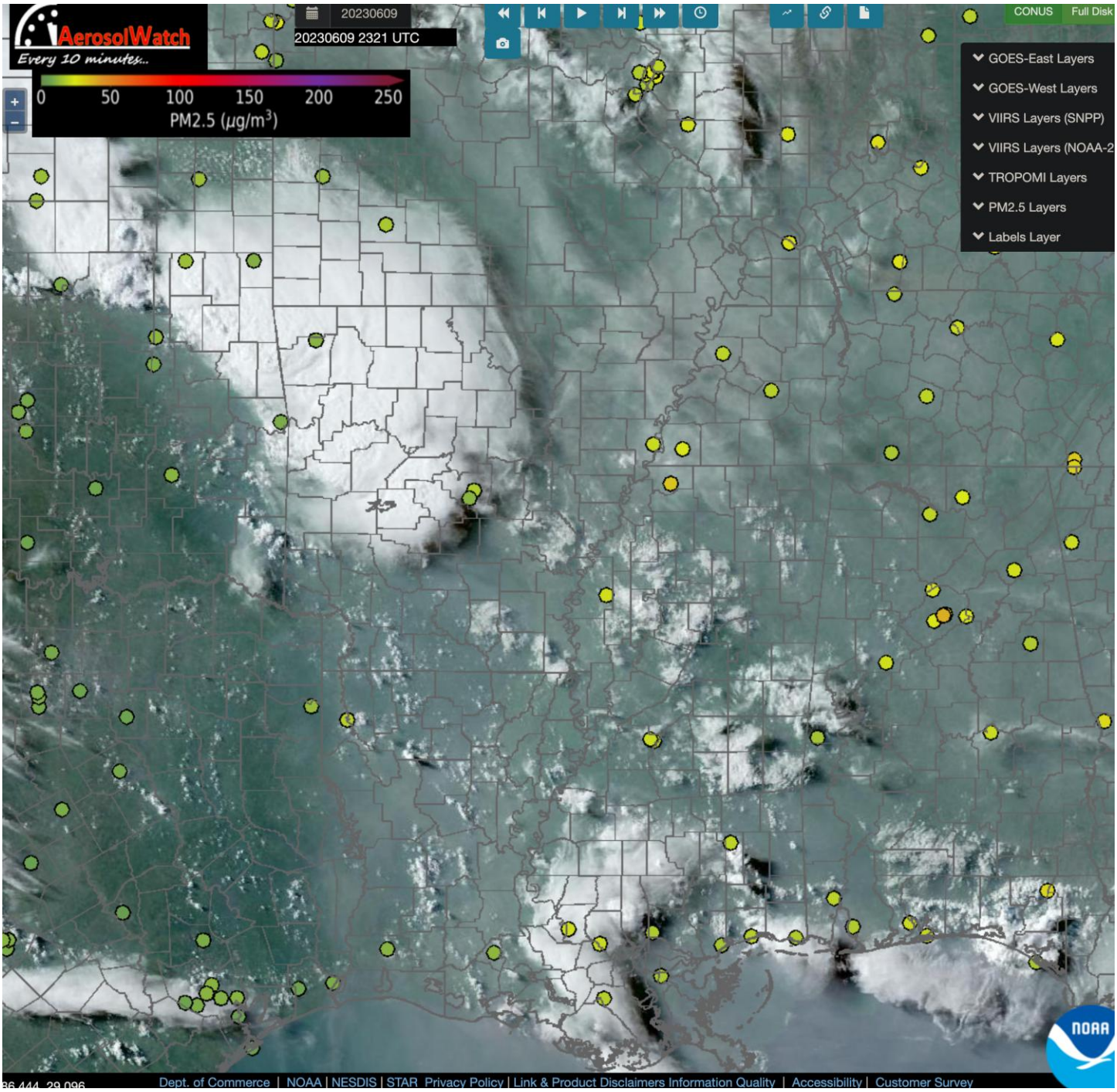


The 00Z surface analysis for Saturday, June 10th (7 PM CDT, Friday, June 9th) shows a frontal boundary, which had previously passed through the Midsouth, is stalled as a stationary front to the south of the area. In its wake, surface High-Pressure is building in over the Ohio River Valley and Midsouth from the northeast. This developing High-Pressure system created stable and stagnant atmospheric conditions, which effectively trapped the Canadian wildfire smoke that had advected into the region over the preceding days. This lack of ventilation was a primary factor in keeping PM2.5 concentrations elevated at the Hernando monitor.



The AirNow-Tech Navigator image for June 9th, 2023, continues to show the presence of residual Canadian wildfire smoke lingering across the Midsouth. This situation is further explained by the overlaid 24-hour back trajectory analysis.

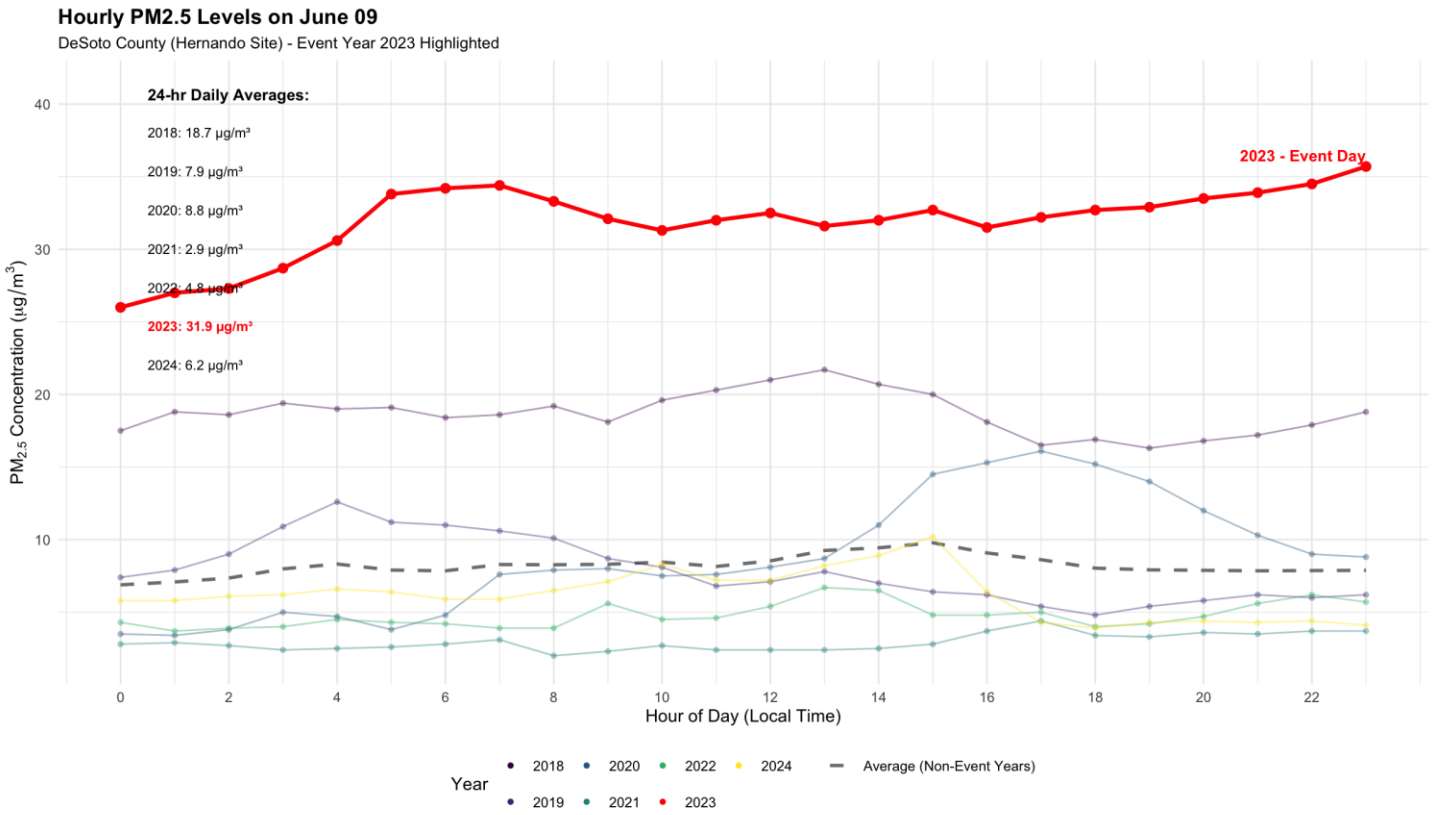
The HYSPLIT model indicates extremely stagnant conditions, with very limited air parcel movement over the preceding 24 hours. The trajectories show a slow drift of air originating from the northeast, a region containing high concentrations of smoke immediately upstream of the monitor. This combination of a persistent, residual smoke plume and poor atmospheric dispersion directly contributed to the elevated PM2.5 values observed at the Hernando monitor.



The GOES-East True Color image from 2321 UTC (6:21PM CDT) on June 9th, 2023, shows a batch of Canadian smoke covering much of the Midsouth and southeastern United States, that has moved in from previous days and continuing to move in from the north, causing PM2.5 values to remain elevated at the Hernando monitor.

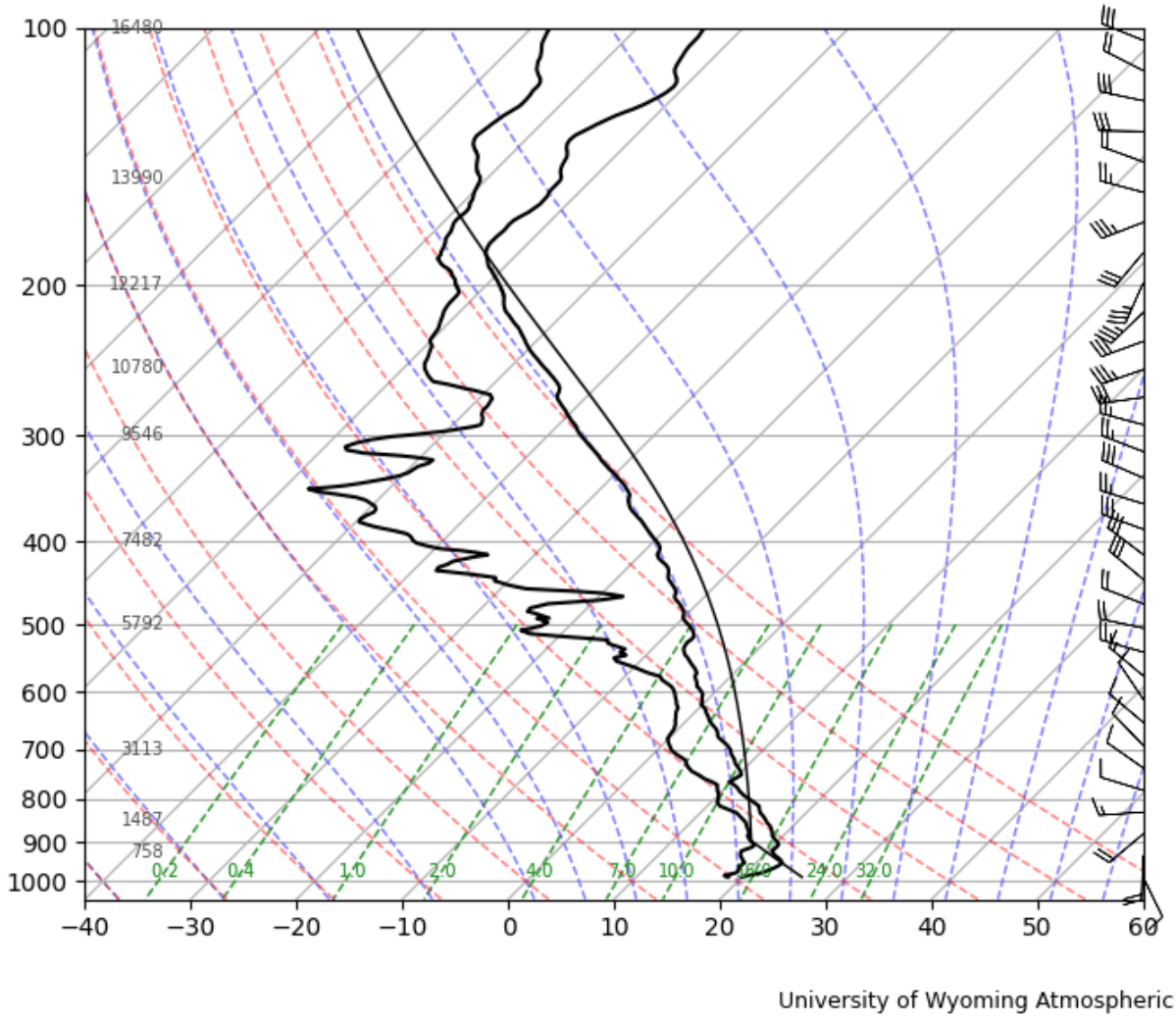
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/09/23	26.9	27.9	28.2	29.6	31.5	34.7	35.1	35.3	34.2	33	32.2	32.9	33.4	32.5	32.9	33.6	32.4	33.1	33.6	33.8	34.4	34.8	35.4	36.6	32.83	36.6

Hourly PM2.5 values at the Hernando monitor were elevated all day on Jun 9th, with the majority one-hour values remaining in the thirties as a combination of residual Canadian smoke-filled air-mass and fresh Canadian smoke continued to transport into the Midsouth from the north and northeast, resulting in a PM2.5 24-hour daily average of 32.83 µg/m^3.

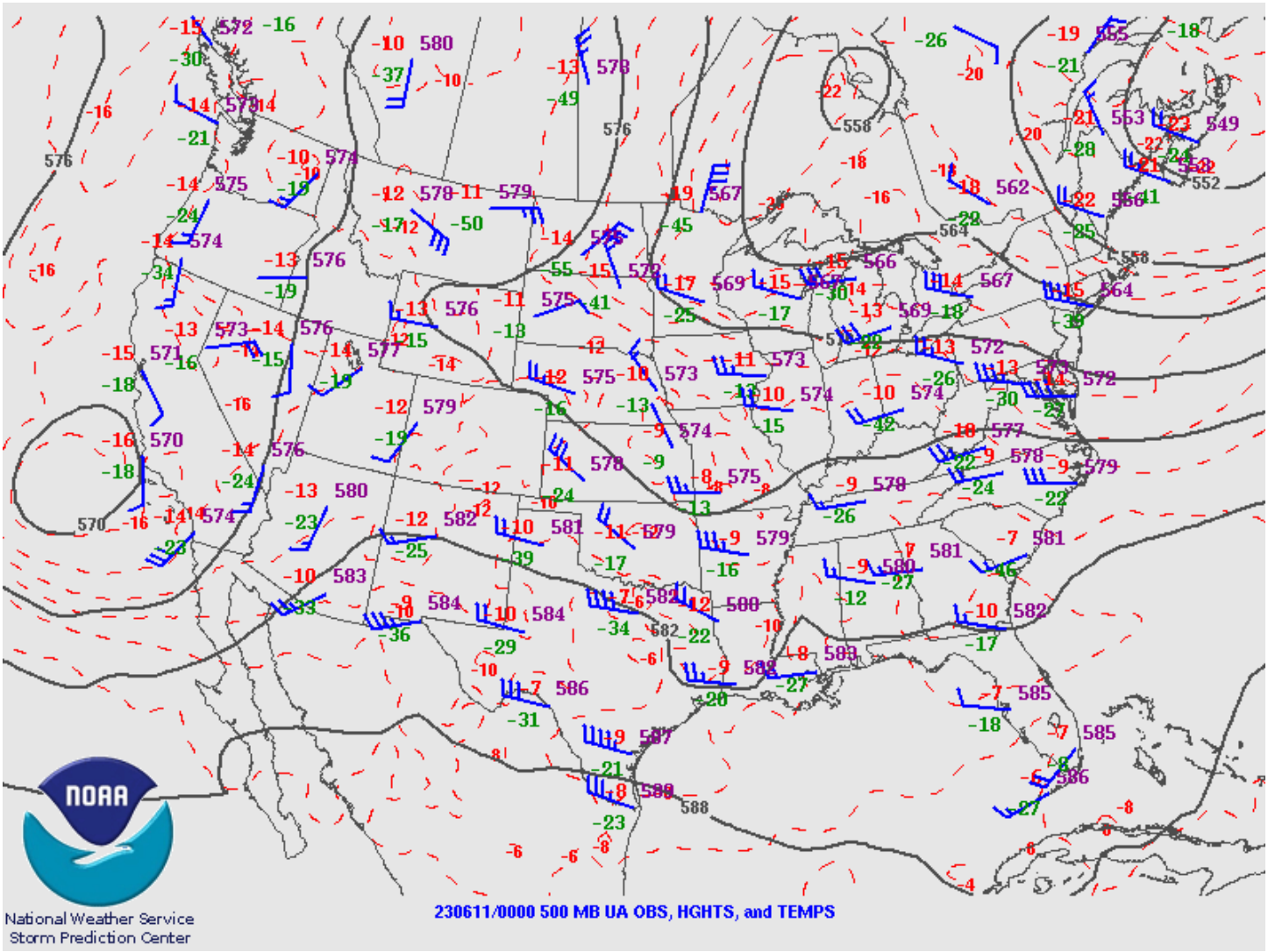


The hourly time series plot for June 9th, shown above, demonstrates that hourly PM2.5 levels in 2023 were higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, continually being transported into the region from the north and northeast, causing persistently high readings at the Hernando monitor.

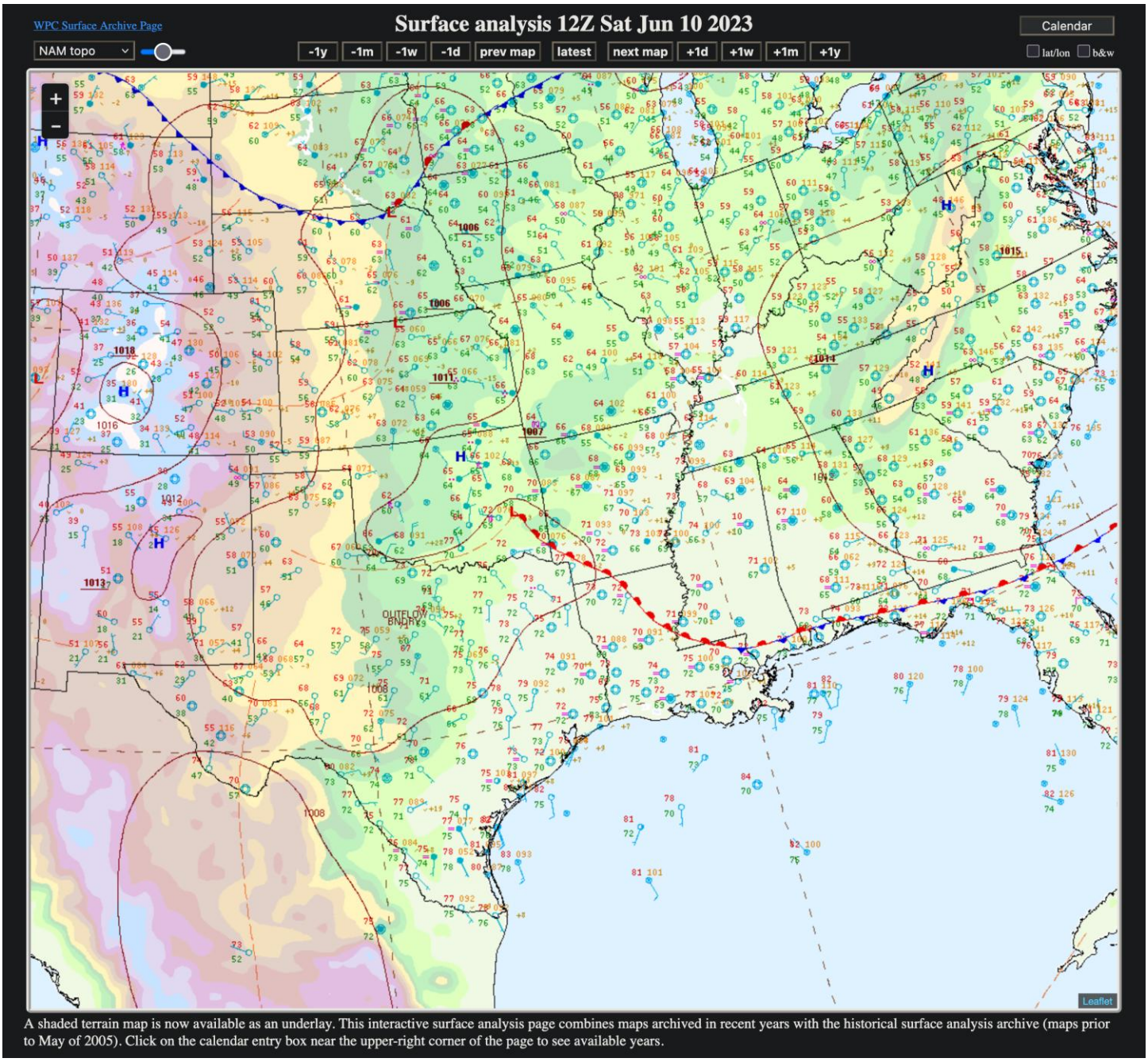
June 10th: June 10th was the last day of this particular long-lived event as weather pattern was finally starting to change. Omega block is breaking down as a shortwave at 500mb was moving through the Midwest which would help disperse Canadian wildfire smoke that had set in over the previous days. At the surface during the day on the 10th, previous says cold front that moved through will move back north over the Midsouth as a warm front helping disperse smoke. Yet prior to the warm front moving through, a stout shallow frontal inversion set up overnight and during the early morning hours on the 10th, previous days smoke from the Canadian wildfires became trapped near the surface, elevating PM2.5 values.



12Z Little Rock sounding from June 10th, 2023, showing very shallow frontal inversion, helping trap previous days Canadian wildfire smoke near the surface, increasing PM2.5 concentrations at the Hernando monitor during the early morning hours.



The 500mb upper-level chart for 00Z on June 11th (7 PM CDT, June 10th) shows upper-level shortwave moving through the Midwest which would help disperse smoke and lower PM2.5 values ending the long stretch of this particular exceptional event.

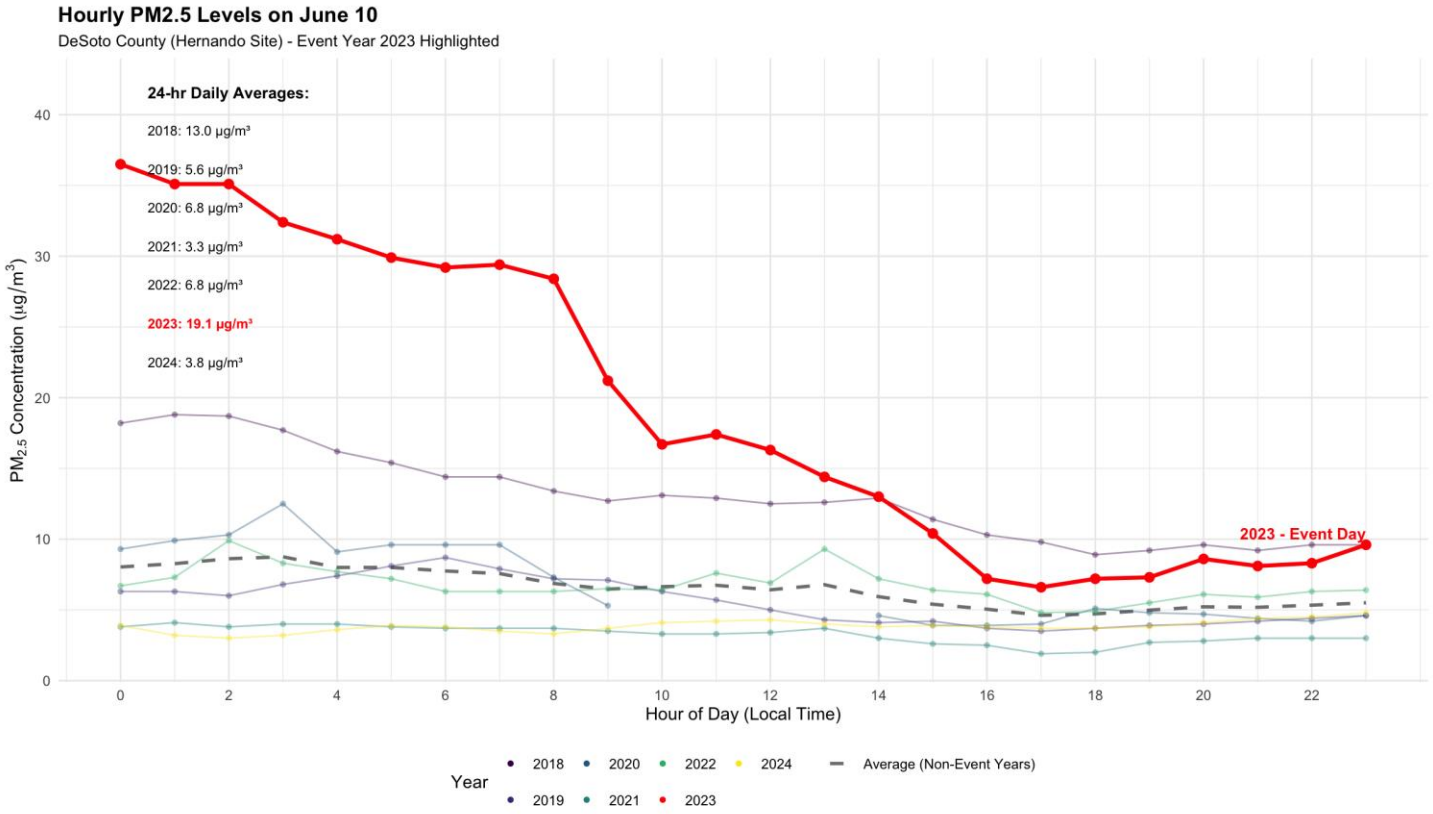


The 12Z surface analysis for Saturday, June 10th shows developing warm front over Louisiana and Arkansas yet before the warm front moved through the Midsouth later during the day, the surface analysis shows very calm conditions with the addition of shallow frontal inversion that set up overnight, would help trap previous days smoke close to the surface, elevating PM2.5 values at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/10/23	37.4	36	36	33.3	32.1	30.8	30.1	30.3	29.3	22.1	17.6	18.3	17.2	15.3	13.9	11.3	8.1	7.5	8.1	8.2	9.5	9.9	10.2	11.5	20.17	37.4

On June 10th, hourly PM2.5 data from the Hernando monitor reveals elevated concentrations, particularly during the early morning. For the first eight hours of the day, values consistently remained above 30 µg/m^3, peaking at 37.4 µg/m^3 at hour 0. This pronounced morning peak is attributed to the overnight development of a low-level frontal inversion, which trapped residual smoke from the previous day near the surface.

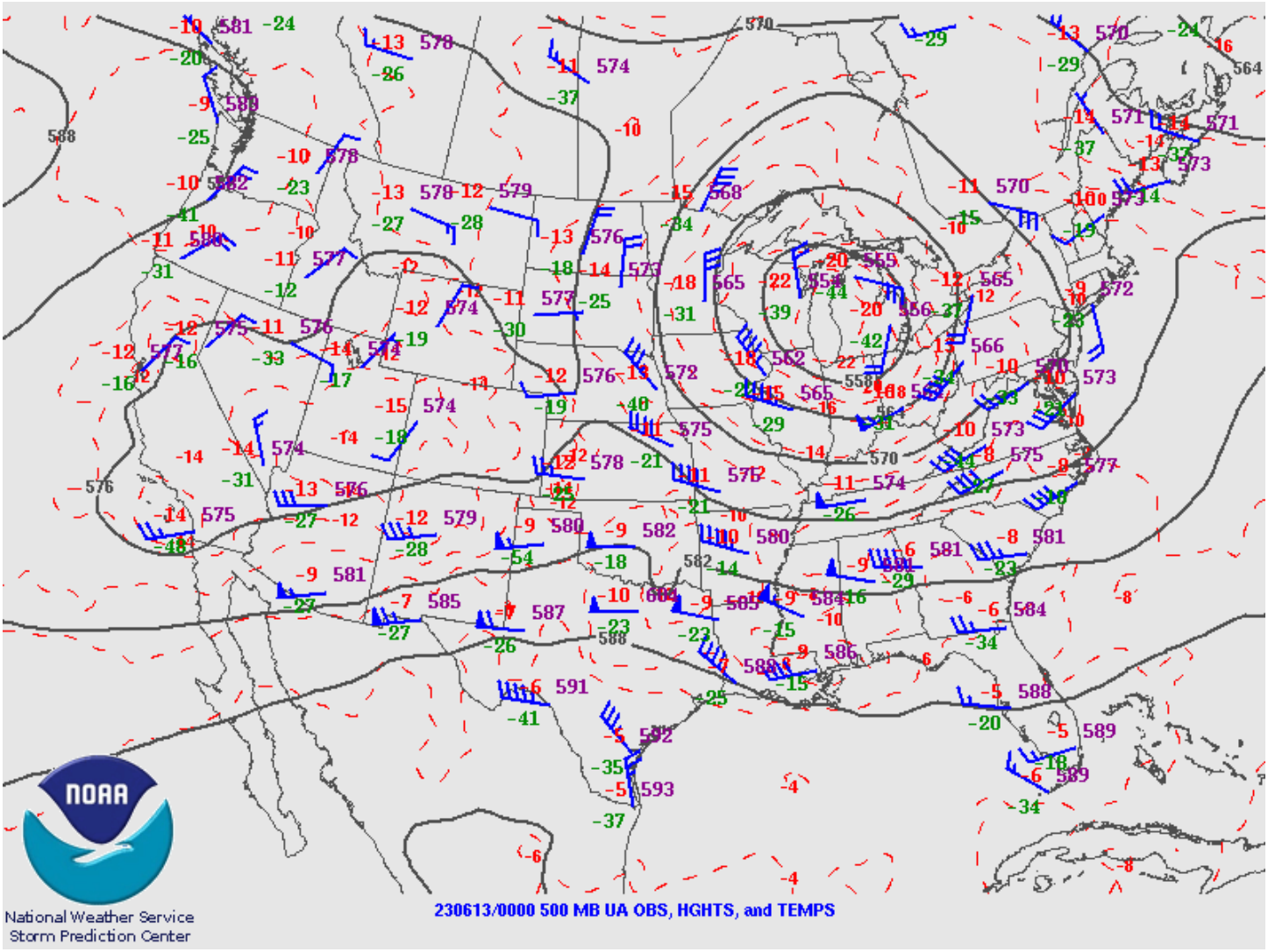
As the day progressed, concentrations gradually decreased due to improved atmospheric dispersion resulting from daytime heating. Despite this afternoon improvement in air quality, the exceptionally high values recorded throughout the morning were the primary driver of the 24-hour daily average, which registered 20.17 µg/m^3 at the Hernando monitor.



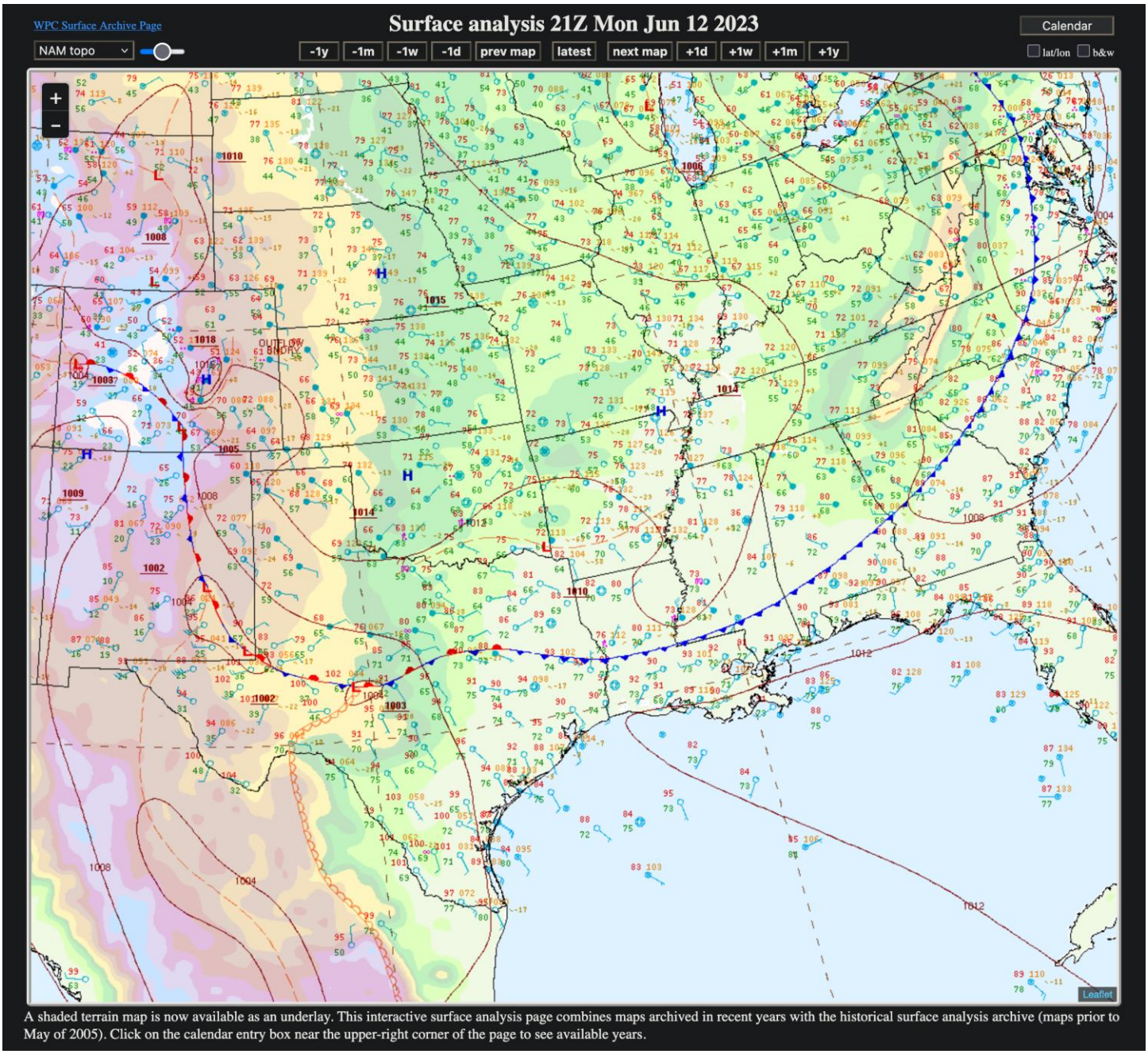
The hourly time series plot for June 10th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region during the previous days causing high readings at the Hernando 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 12, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	22.56	2	Canadian Wildfire C Exceptional Event Demonstration: Jun 12, 2023

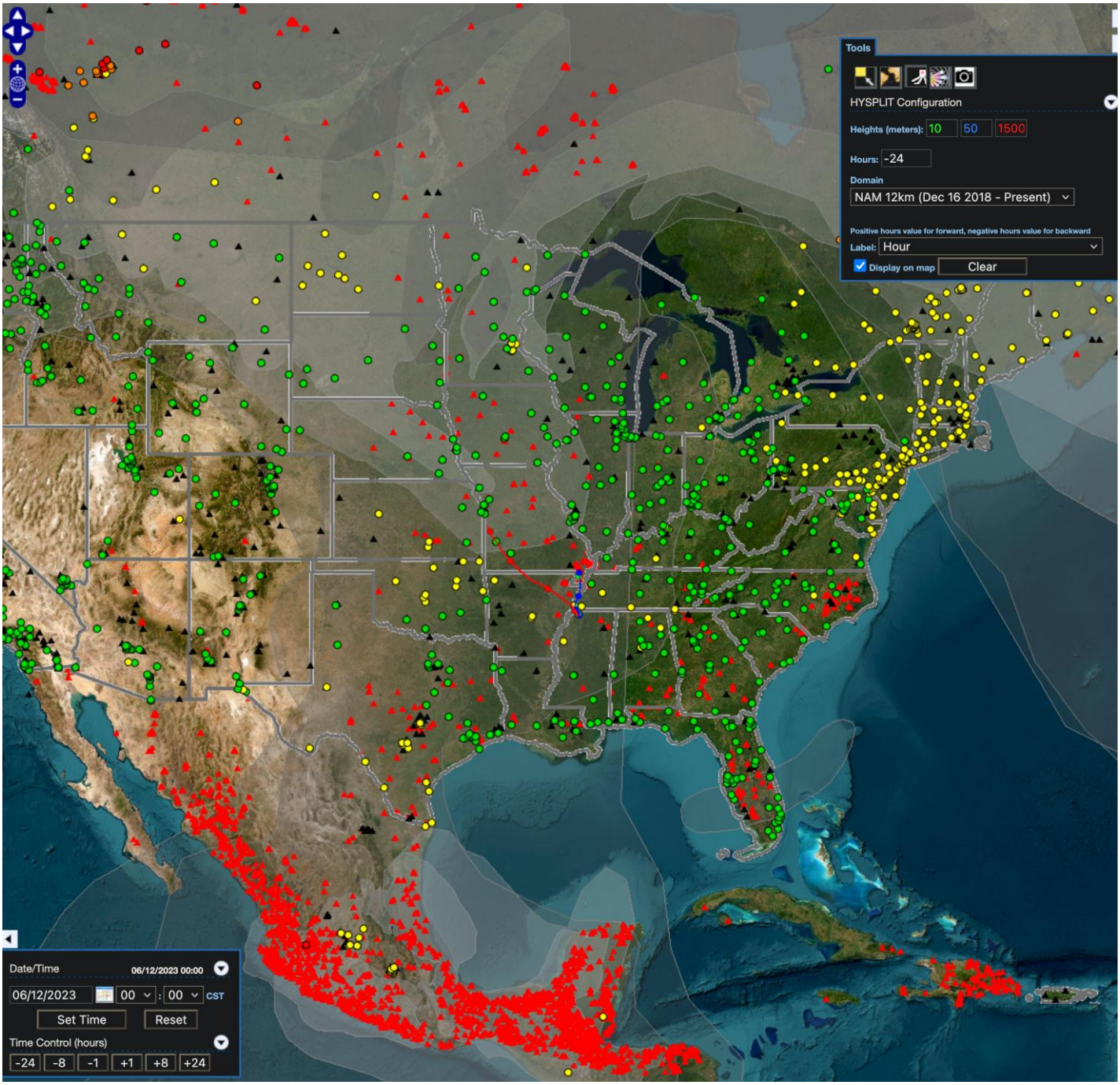
Synopsis: Several wildfires were ongoing both over Quebec and out in western Canada. There was an Upper-Level Low placement over the Great Lakes region where along the backside of the Low, northerly flow was providing a transport pathway for Canadian smoke to enter deep into the United States. At the surface, on the 12th, a frontal boundary was moving through the Midsouth whereas behind the front, a fresh batch of Canadian smoke moved in elevating PM2.5 values at the Hernando monitor.



The 500mb upper-level chart for 00Z on June 13th (7 PM CDT, June 12th) shows Upper-Level Low over the Great Lakes region which would help provide a pathway for transport for Canadian smoke to reach deep down into the United States, eventually making its way into the Midsouth.



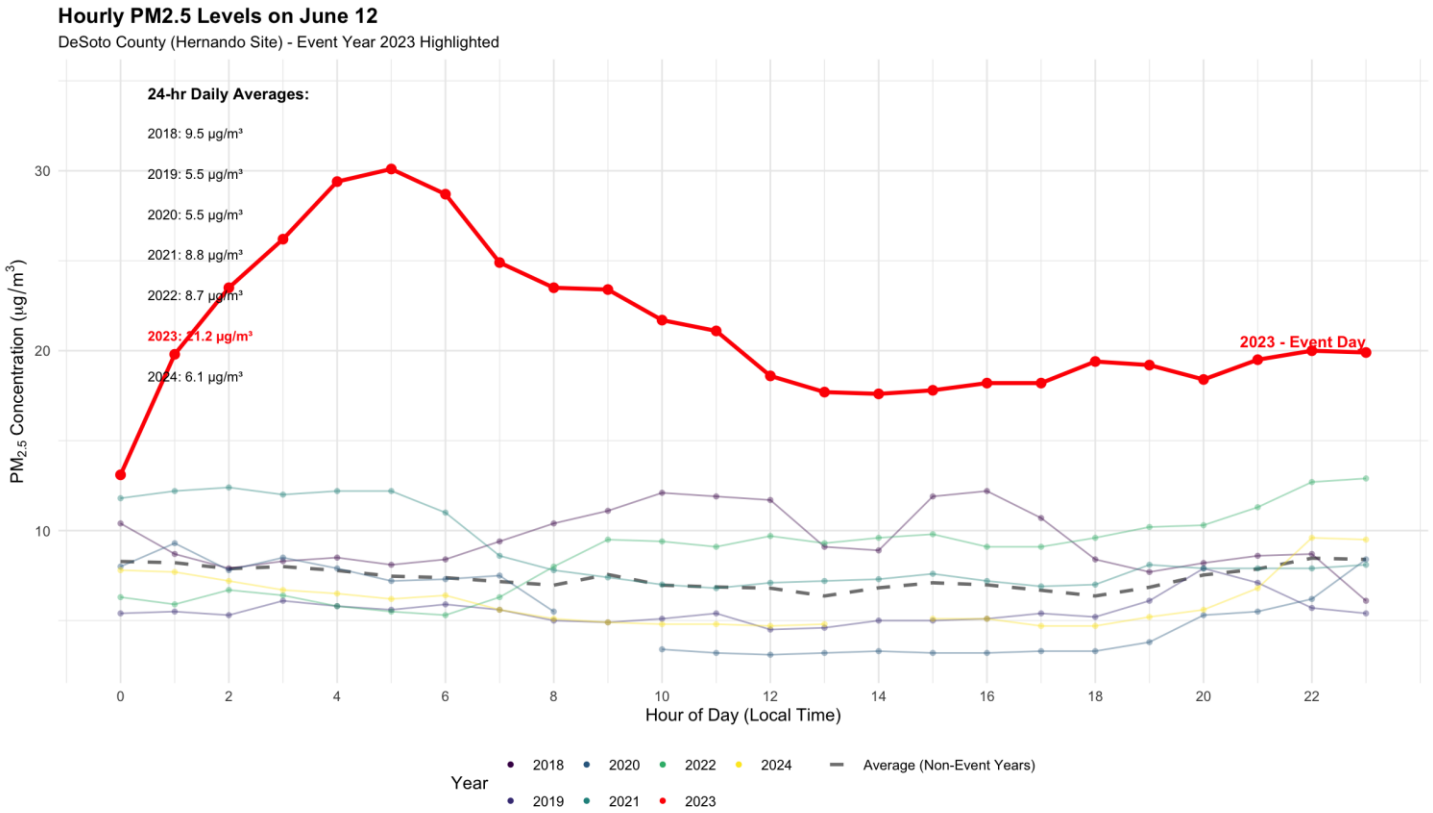
The 21Z surface analysis for Monday, June 12th showing with aid of aforementioned Upper-Level Low, a cold front that moved through the Midsouth, issuing in a fresh batch of Canadian wildfire smoke over the area from the north, affecting the PM2.5 monitor at DeSoto.



The AirNow-Tech Navigator image for June 12th, 2023, shows Canadian smoke diving deep into the United States, on west side of Upper-Level Low that is placed over the Great Lakes region, making its way all the way down into the Midsouth. Back trajectories show at the lowest levels (10m, 50m, 1500m) behind cold frontal passage, air parcels originating from airmass with higher concentrated smoke, moving south over the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/12/23	14	21.7	25.4	28.1	31.3	32	30.6	25.8	24.4	24.3	22.6	22	19.5	18.6	18.5	18.7	19.1	19.1	20.3	20.1	20.3	21.4	21.9	21.8	22.56	32

On June 12th, hourly PM2.5 data from the Hernando monitor show elevated concentrations throughout the day mainly in the twenties, as fresh batch of Canadian smoke moved in from the north after frontal passage during the early morning hours on the 12th resulting in the daily PM2.5 average at the Hernando monitor to read 22.56ug/m^3.

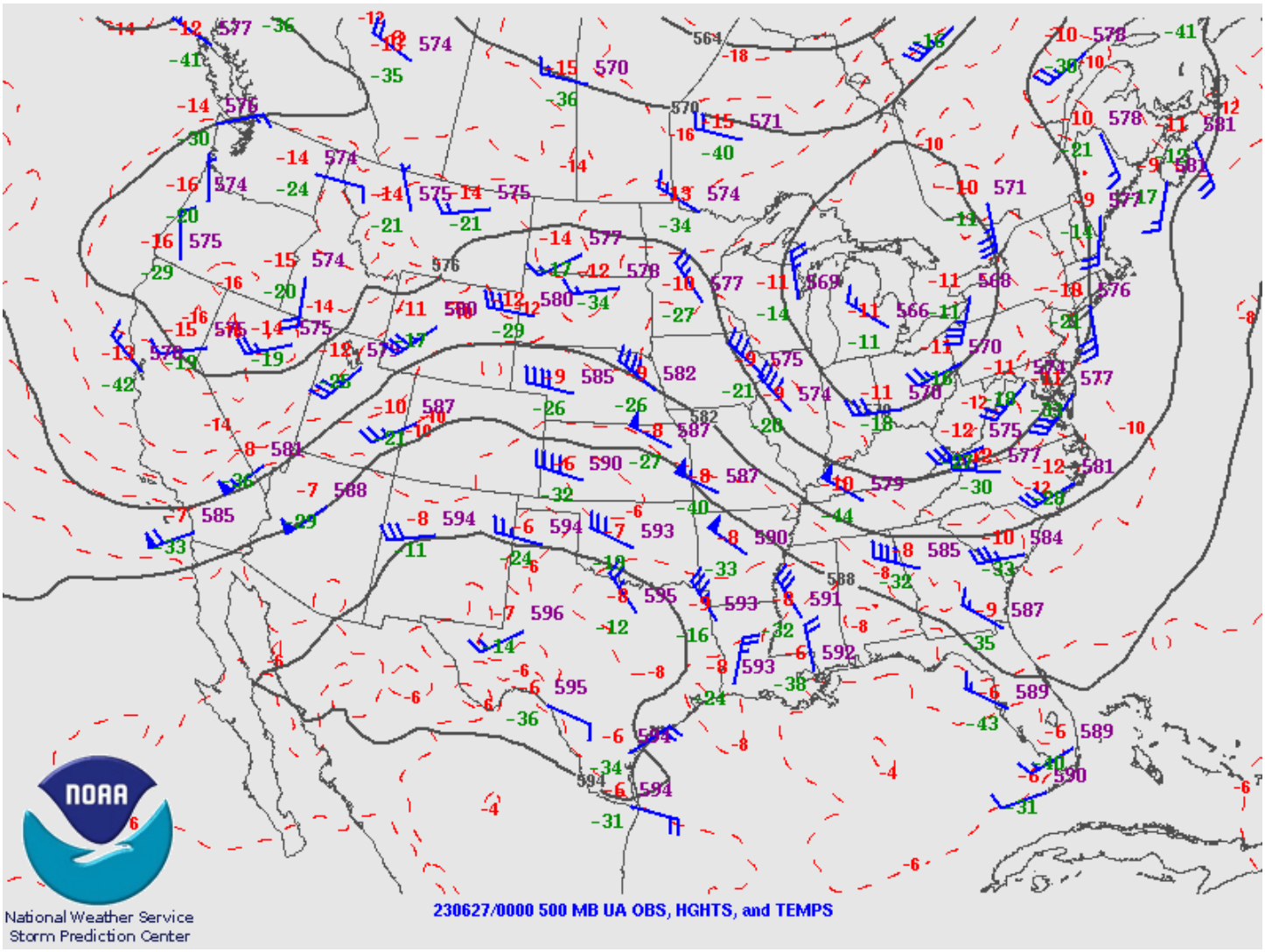


The hourly time series plot for June 12th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

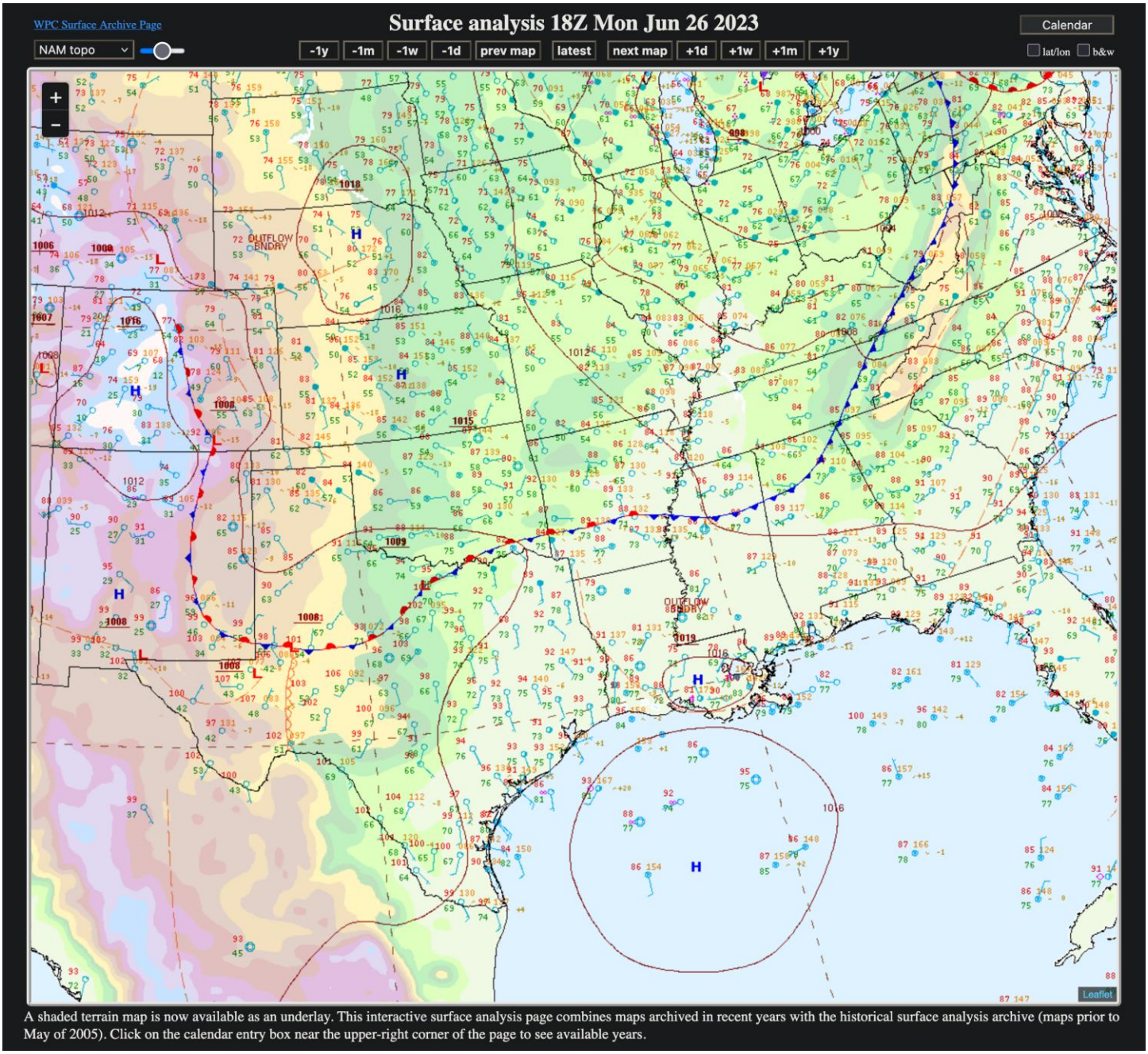
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
June 26-28, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	23.7, 29.4, 24.9	1 & 2	Canadian Wildfire C Exceptional Event Demonstration: June 26 - 28, 2023

Synopsis: Like previous events demonstrated for June, and for the majority of the month, there were numerous ongoing wildfires in Canada both over Quebec and out in central and western Canada. The upper-level pattern for a good portion of June had this Omega blocking feature where there was a persistent Upper-Level Low placed over the northeast and would occasionally retrograde over the Great Lakes Region with an Upper-Level Ridge placed just east the Rockies. This setup provided an optimal pathway for smoke from Canada to transport deep into the central and southern parts of the United States. The event highlighted for June 26 – 28th, were under these synoptic conditions.

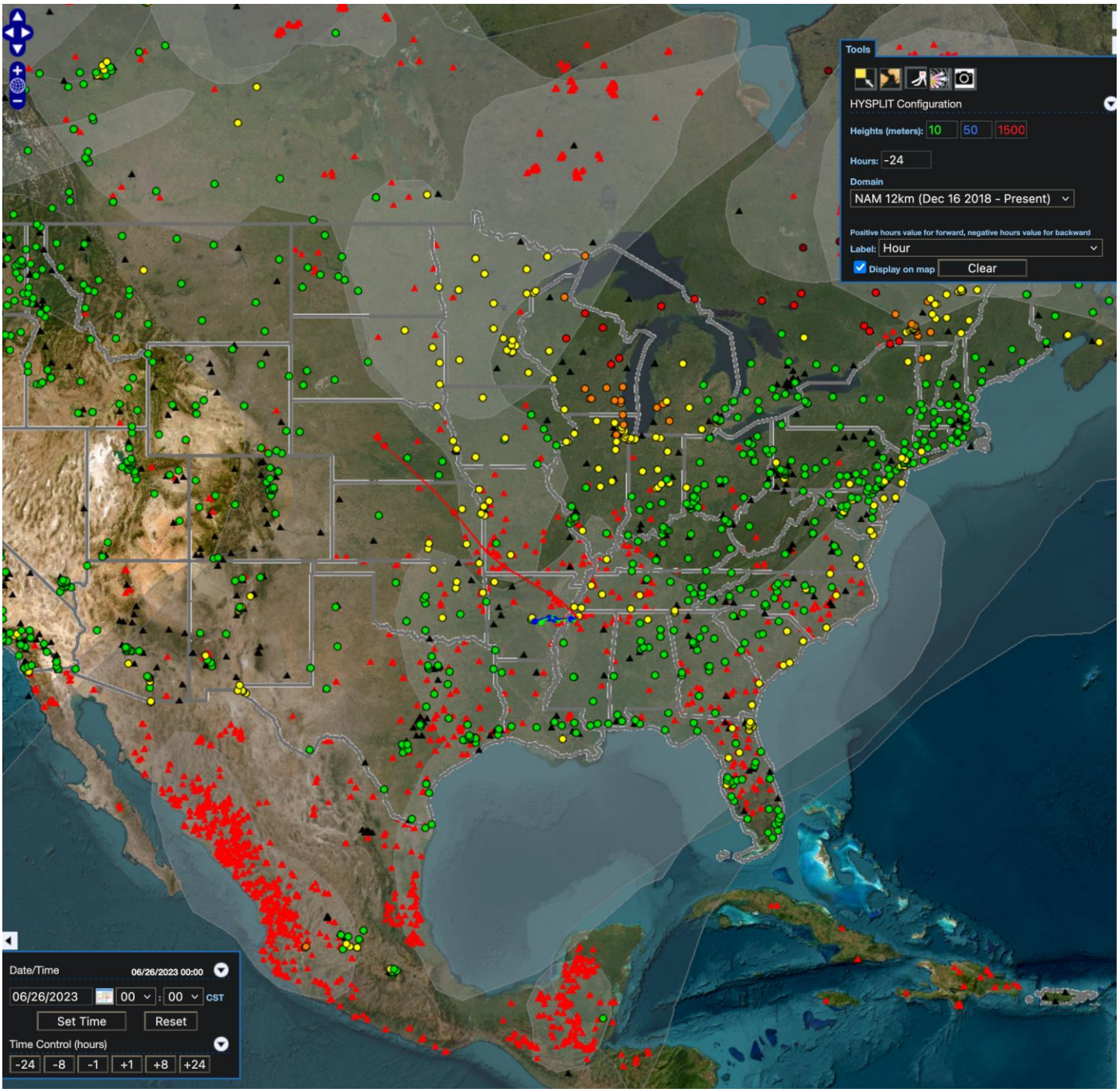
June 26th: June 26th the day this particular event started, the aforementioned upper-level pattern was in place while at the surface, a surface cold front moved through the area during the early morning hours issuing in behind it, a fresh batch of smoke from the Canadian wildfires, increasing PM2.5 values at the Hernando monitor.



The 500mb upper-level chart for 00Z on June 27th (7 PM CDT, June 26th) shows Upper-Level Low over the Great Lakes region with Upper-Level Ridge just east of the Rockies which would help provide a pathway for transport for Canadian smoke to reach deep down into the United States, eventually making its way into the Midsouth.

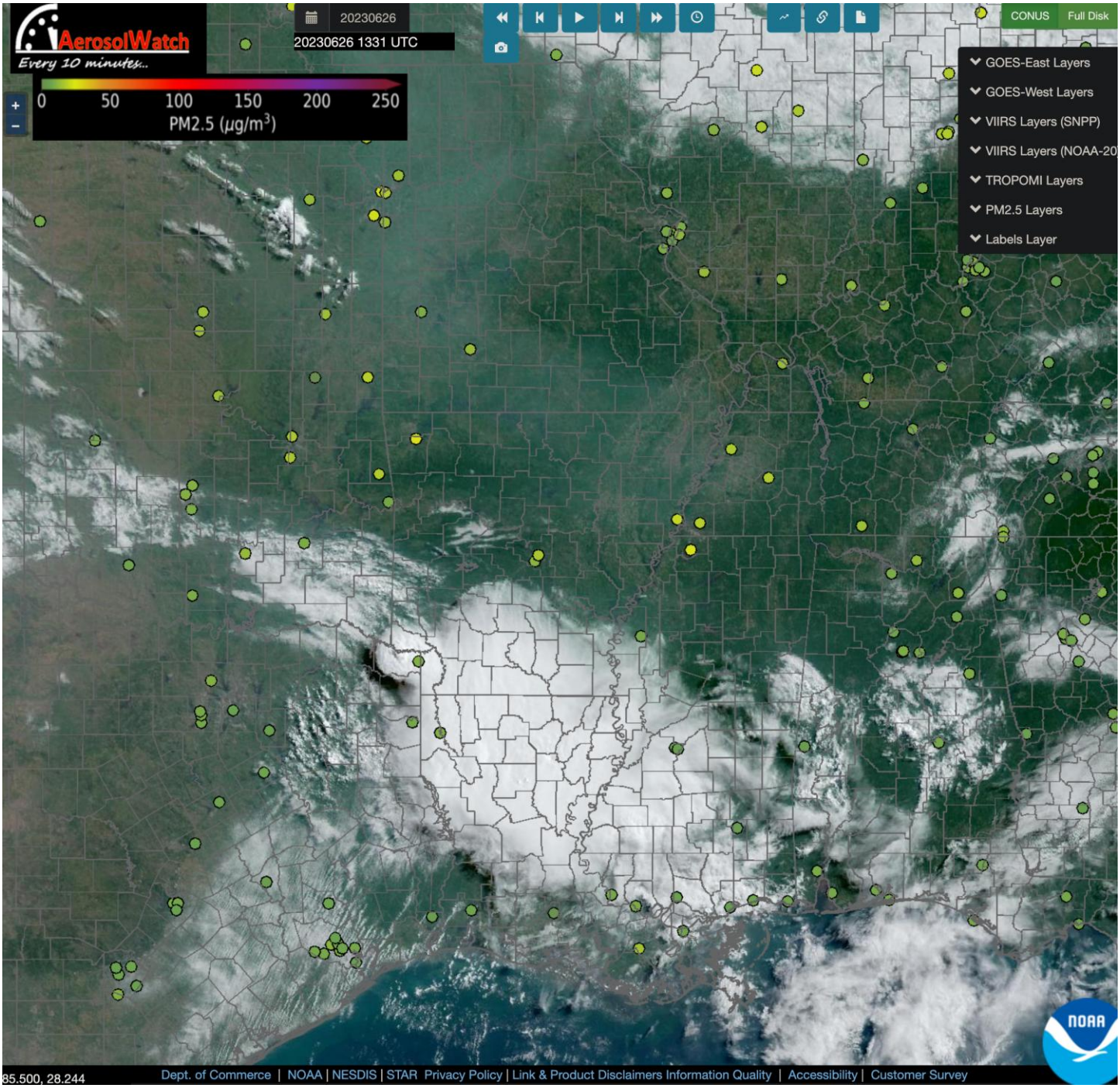


The 18Z surface analysis for Monday, June 26th showing with aid of aforementioned Upper-Level Low, a cold front that moved through the Midsouth, issuing in a fresh batch of Canadian wildfire smoke over the area from the north, affecting the PM2.5 monitor at DeSoto.



The AirNow-Tech Navigator image for June 26th, 2023, shows a plume of Canadian smoke being advected deep into the Midsouth. This southerly transport was driven by the flow on the western flank of a large Upper-Level Low centered over the Great Lakes region.

This transport mechanism is confirmed by the HYSPLIT back trajectory analysis. At the 1500m level, following a cold frontal passage, the model shows air parcels originating from the smoke-laden airmass to the north and moving directly over the Hernando monitor. Simultaneously, trajectories for the lower levels (10m and 50m) indicate very little movement, confirming stagnant surface conditions. This combination of ongoing smoke transport from the north and poor dispersion at the surface created ideal conditions for trapping pollutants, leading to elevated PM2.5 values.

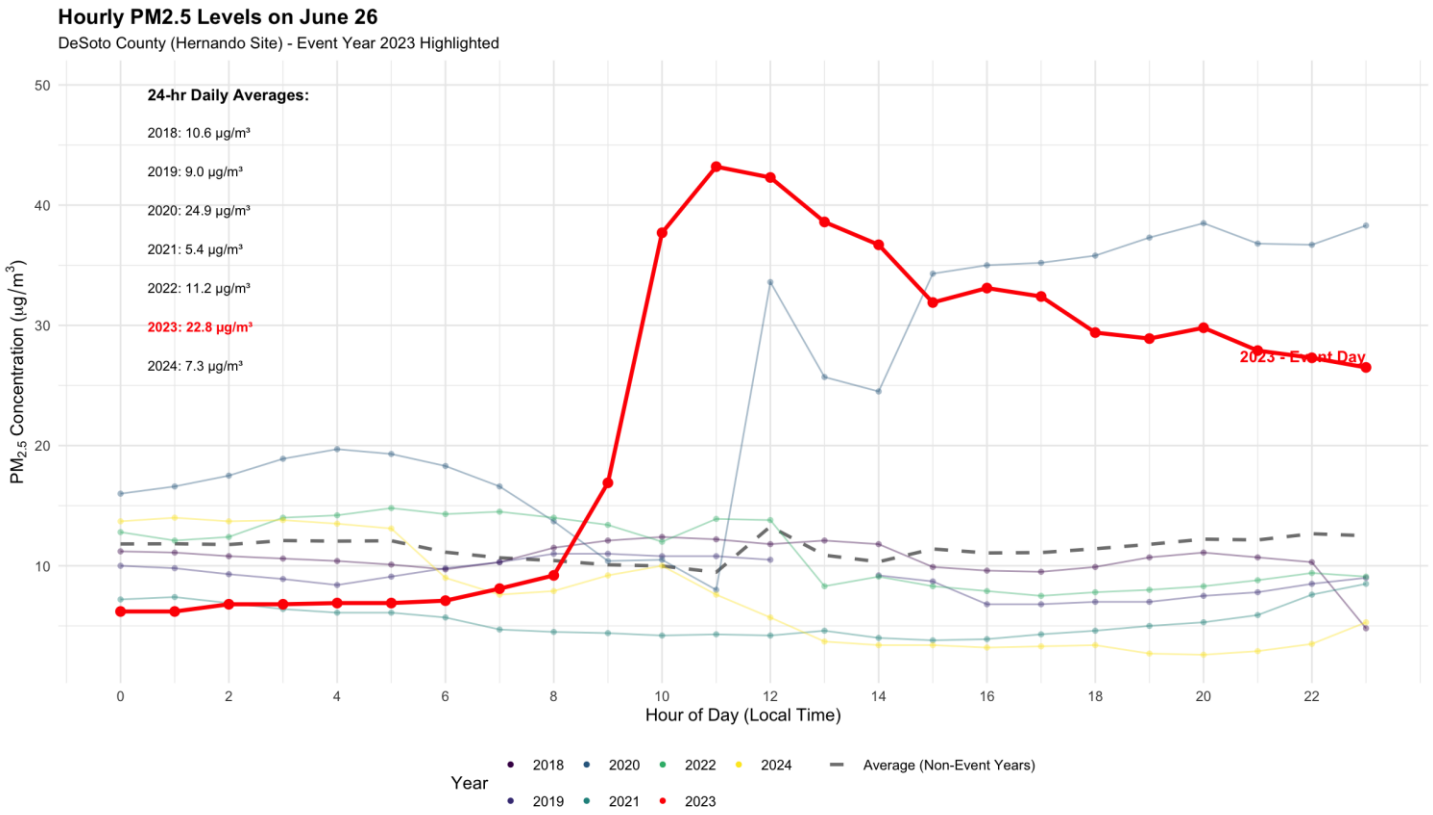


The GOES-East True Color image from 1331 UTC (8:31AM CDT) on June 26th, 2023, shows a batch of Canadian smoke moving into the Midsouth from the north/northwest behind surface frontal boundary, causing PM2.5 values to become elevated at the Hernando monitor.

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
HERNANDO/280330002/PM2.5-88101/3	06/26/23	7.1	7.1	7.7	7.7	7.8	7.8	8	9	10.1	17.8	38.6	44.1	43.2	39.5	37.6	32.8	34	33.3	30.3	29.8	30.7	28.8	28.2	27.4	23.68	44.1

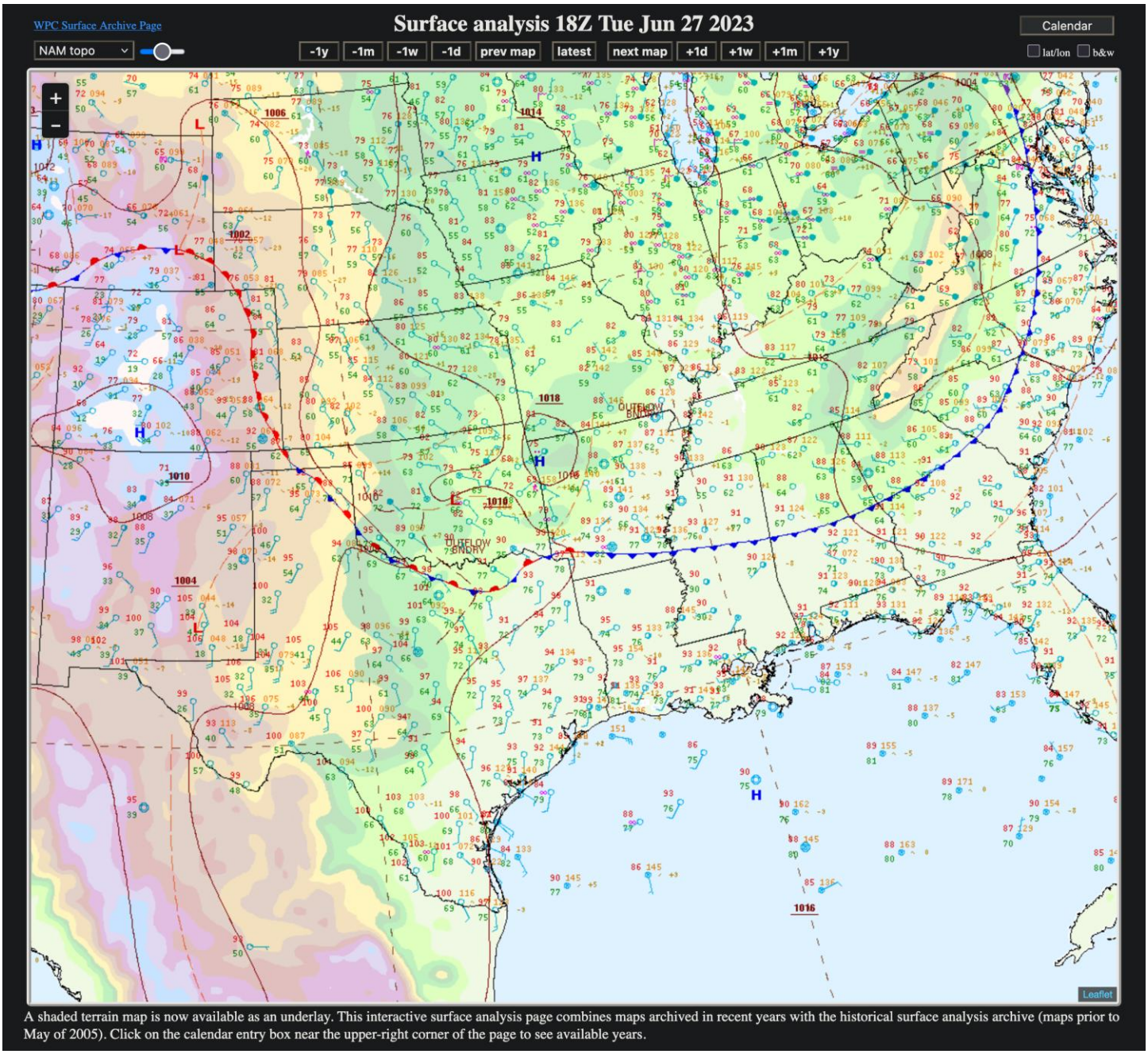
The impact of the cold front on air quality at the Hernando monitor is evident in the hourly PM2.5 data for June 26th. Prior to the frontal passage in the early morning, concentrations were low, registering in the single digits. However, a sharp and dramatic increase in PM2.5 values occurred immediately following the passage of the front. This increase is attributed to the front advecting a fresh plume of smoke from the Canadian wildfires into the

region. The influx of this concentrated smoke throughout the remainder of the day was the primary factor in the elevated 24-hour daily average of 23.68 µg/m^3.



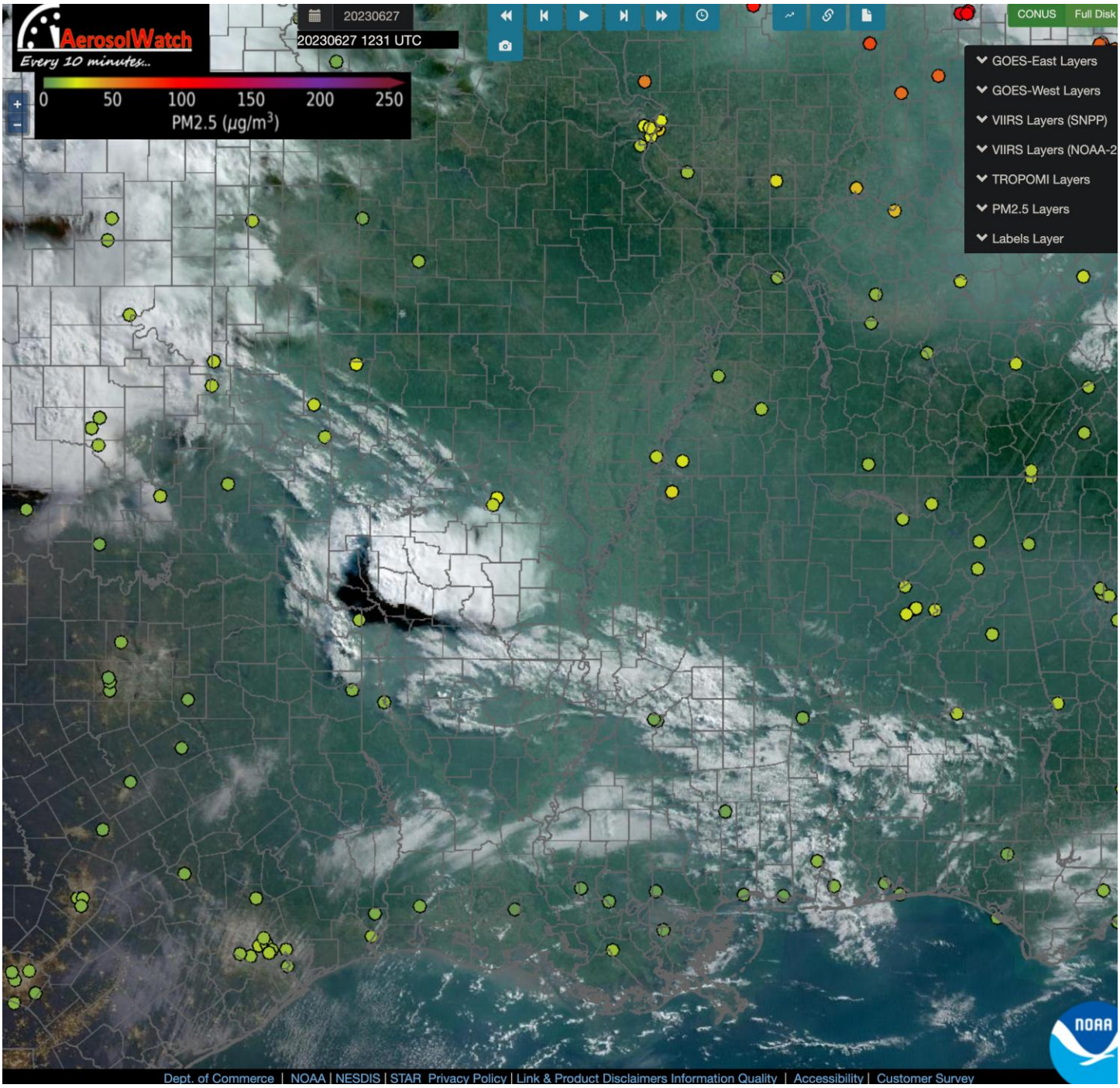
The hourly time series plot for June 26th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

June 27th: On June 27th, the Hernando monitor continued to record high PM2.5 readings. This was a direct result of a surface High-Pressure system that settled over the region in the wake of the previous day's frontal passage. The establishment of this High-Pressure created stable and stagnant atmospheric conditions, which effectively trapped the pre-existing Canadian wildfire smoke that had been advected into the area behind the front. This lack of atmospheric dispersion was the key factor that sustained elevated PM2.5 values.



The 18Z surface analysis for Tuesday, June 27th, showing surface High-Pressure over the Midsouth, enabling stable/stagnant conditions, trapping previous days smoke that transported in behind the frontal boundary near the surface, elevating the PM2.5 values at the Hernando monitor.

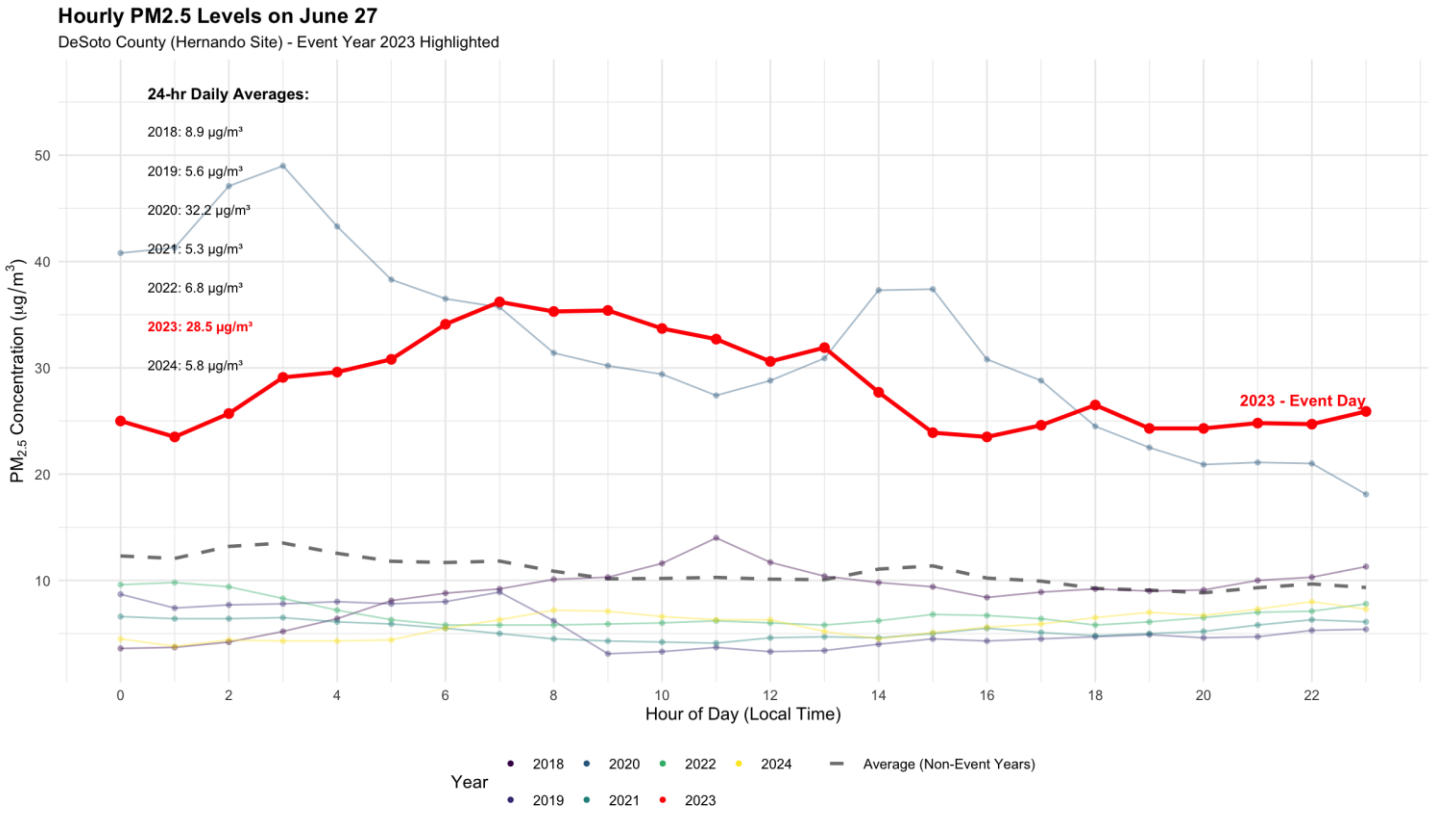
The AirNow-Tech Navigator image for June 27th, 2023, along with a 24-hour back trajectory shows Canadian smoke continues to being advected into the Midsouth from the north at 1500m level. While at the lower levels (10m and 50m) indicate very little movement, confirming stagnant surface conditions. This combination of ongoing smoke transport from the north and poor dispersion at the surface created ideal conditions for trapping pollutants, leading to elevated PM2.5 values.



The GOES-East True Color image from 1231 UTC (7:31AM CDT) on June 27th, 2023, shows a batch of Canadian smoke over the Midsouth that had moved over the area during the previous days, continuing to elevate the PM2.5 values at the Hernando monitor.

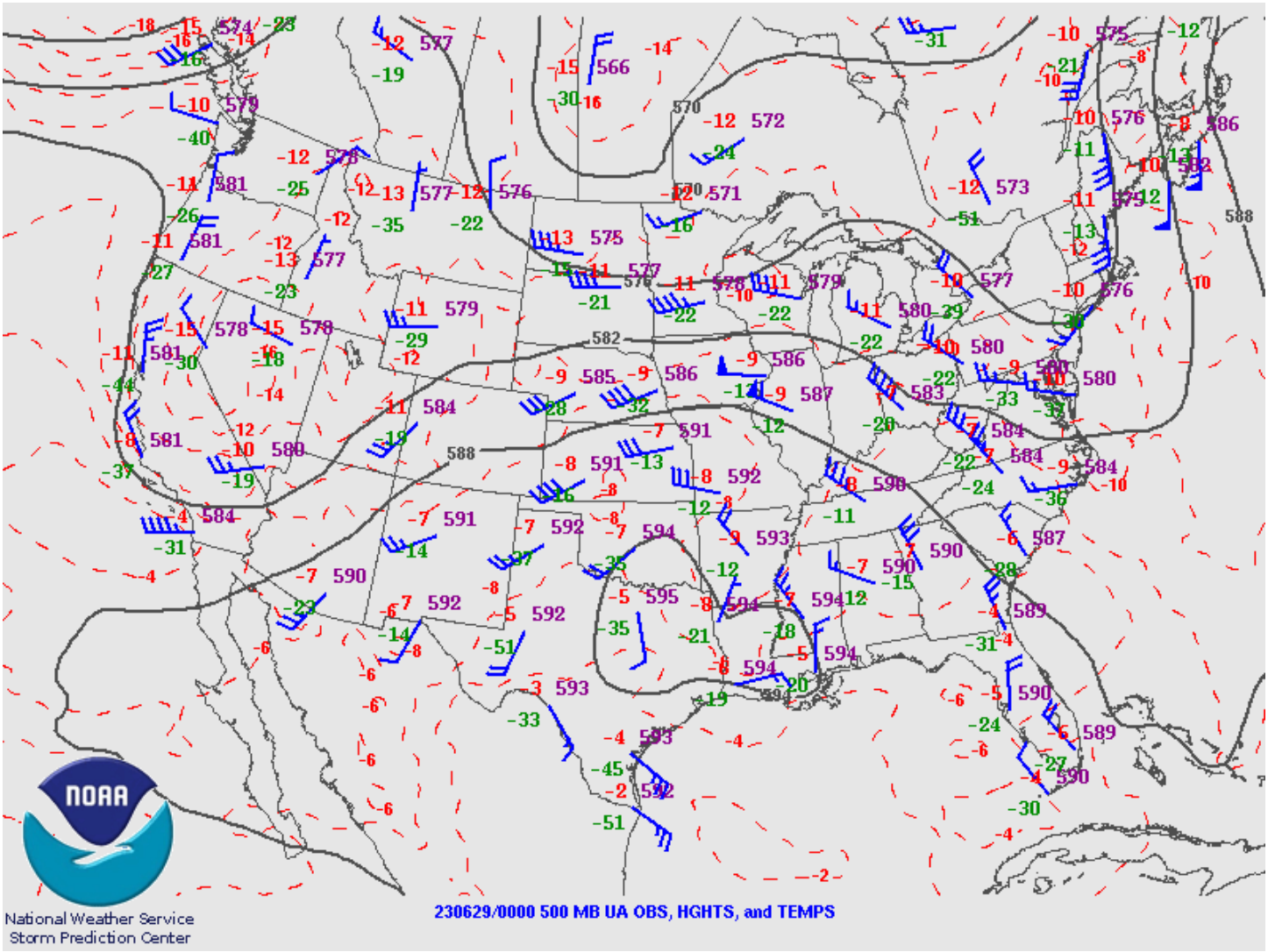
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	06/27/23	25.9	24.4	26.6	30	31.5	31.7	35	37.1	36.2	36.3	34.6	33.6	31.5	32.8	28.6	24.8	24.4	25.5	27.4	25.2	25.2	25.7	25.6	26.8	29.43	37.1

On June 27th, hourly PM2.5 data from the Hernando monitor show elevated concentrations throughout the day in the twenties and thirties, as a pre-existing batch of Canadian smoke that moved in days prior behind frontal passage became trapped under stable stagnant conditions, resulting in the daily PM2.5 average at the Hernando monitor to read 29.43ug/m^3.

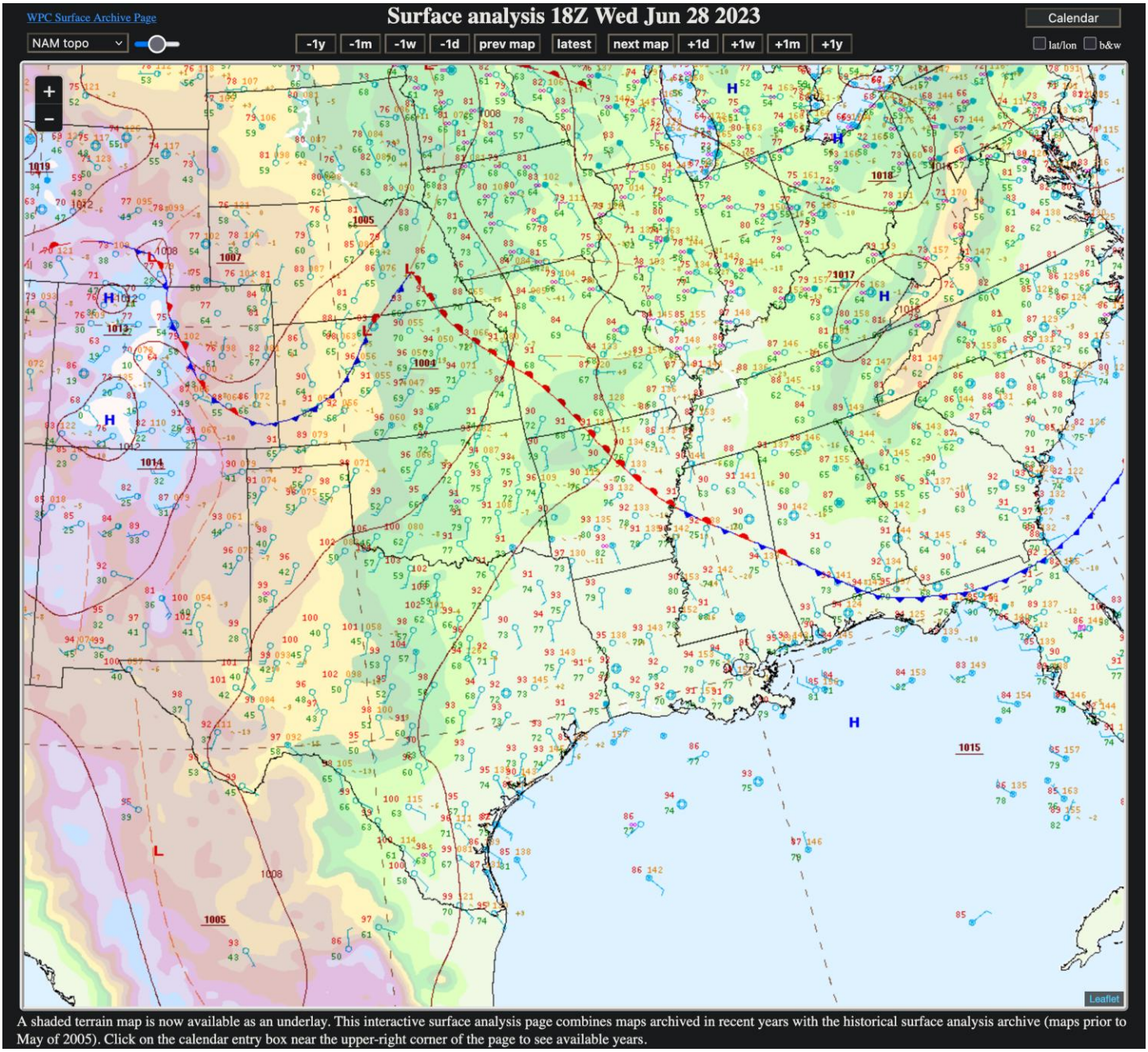


The hourly time series plot for June 27th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

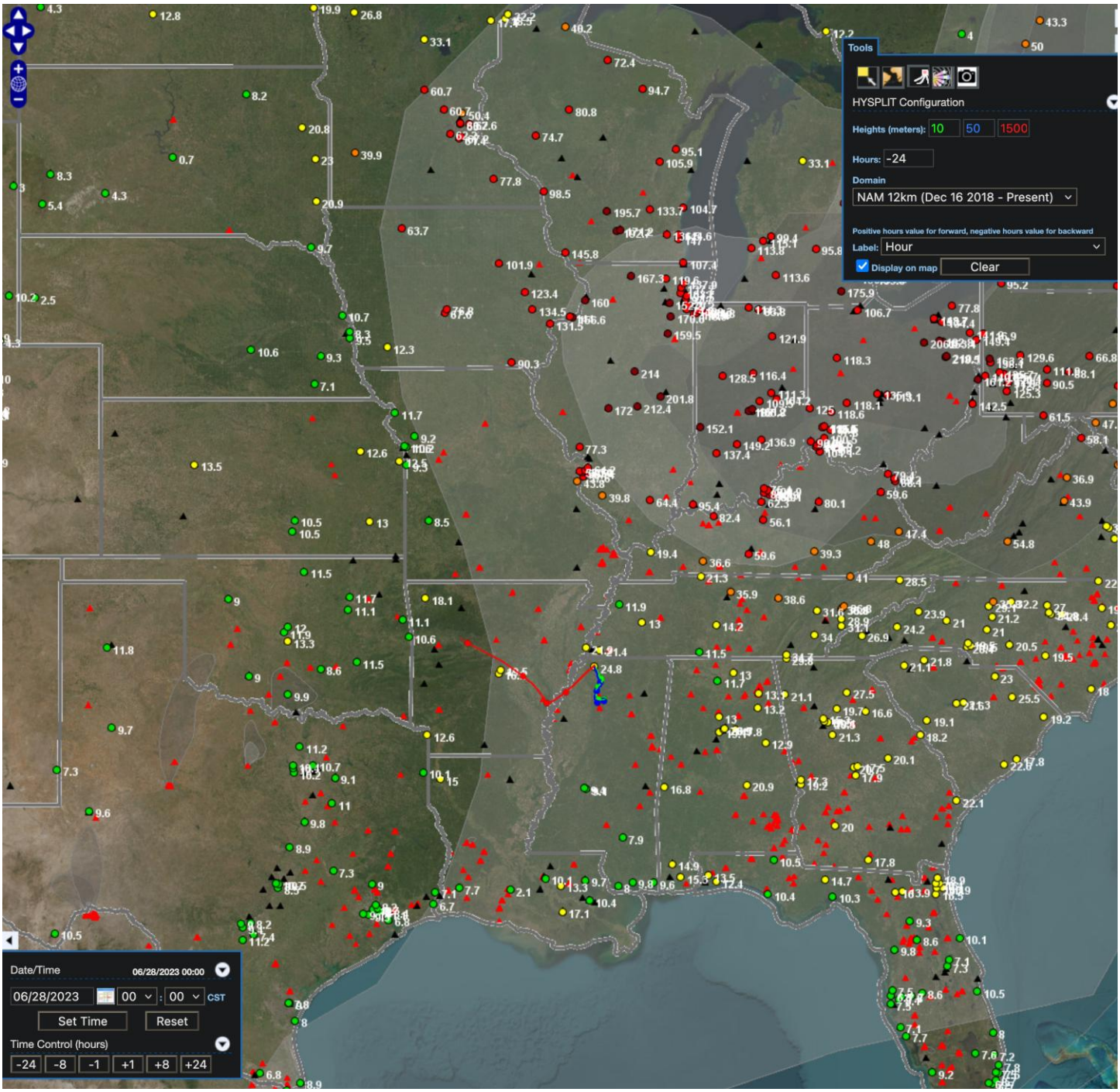
June 28th: June 28th continued to see elevated PM2.5 values at the Hernando monitor primarily thanks to a developing 594dm Upper-Level Ridge that was building into the area, enhancing stable/stagnant conditions, while at the surface, surface High-Pressure remained in control also helping enhance stable conditions which resulted in continued trapping of Canadian wildfire smoke that had moved in days prior, keeping PM2.5 values elevated at the Hernando monitor.



The 500mb upper-level chart for 00Z on June 29th (7 PM CDT, June 28th) shows a strong 594dm Upper-Level Ridge building in over the area, enhancing stable/stagnant conditions, trapping Canadian wildfire smoke over the area that had moved in days prior.

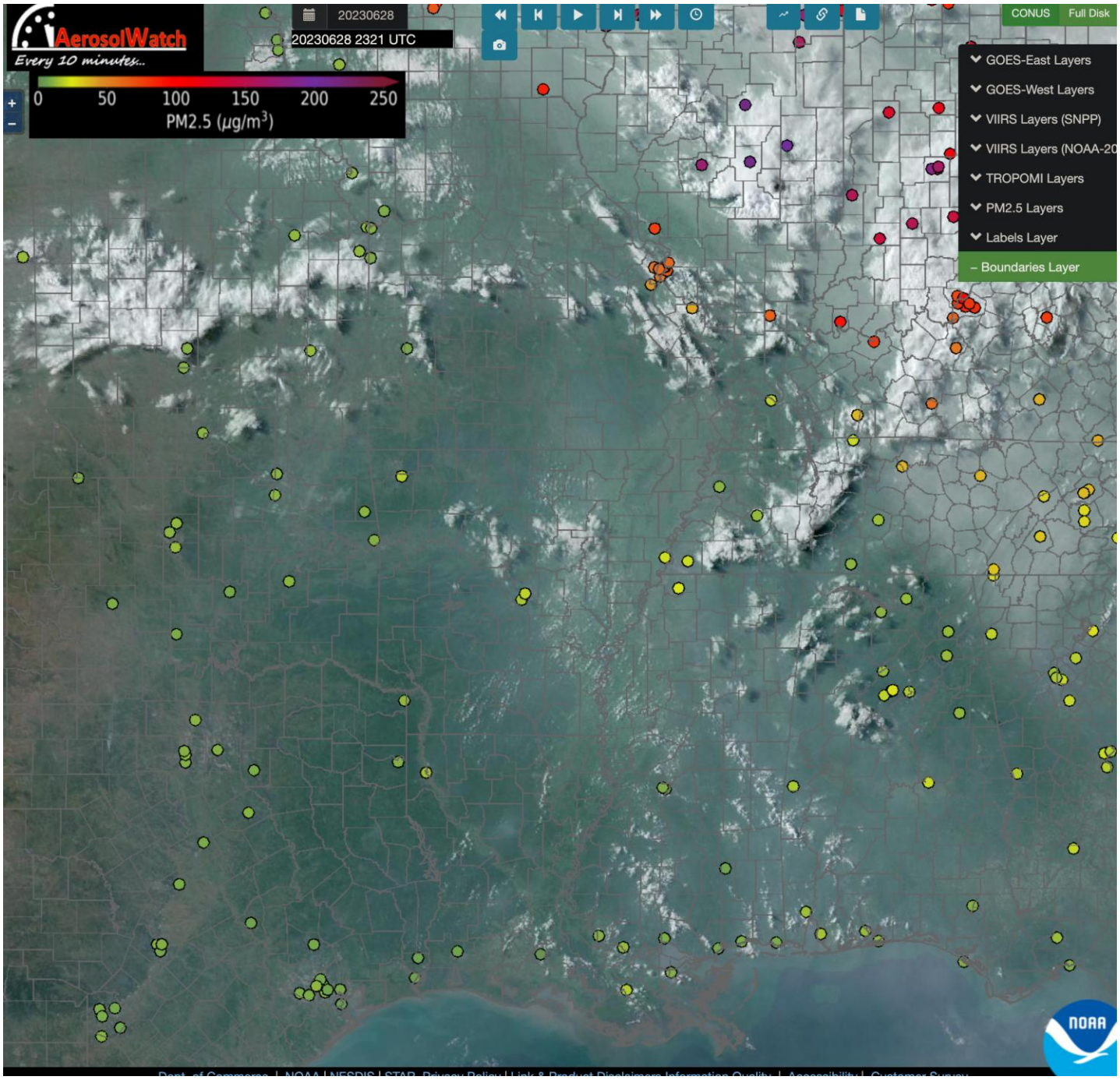


The 18Z surface analysis for Wednesday, June 28th, showing surface High-Pressure over the Tennessee and Kentucky, enabling stable/stagnant conditions, trapping previous days smoke that transported in behind the frontal boundary near the surface, elevating the PM2.5 values at the Hernando monitor.



The AirNow-Tech Navigator image for June 28th, 2023, shows a vast expanse of Canadian wildfire smoke covering much of the eastern half of the United States. This smoke plume was effectively trapped beneath a strengthening Upper-Level Ridge that was building across the South and Southeast.

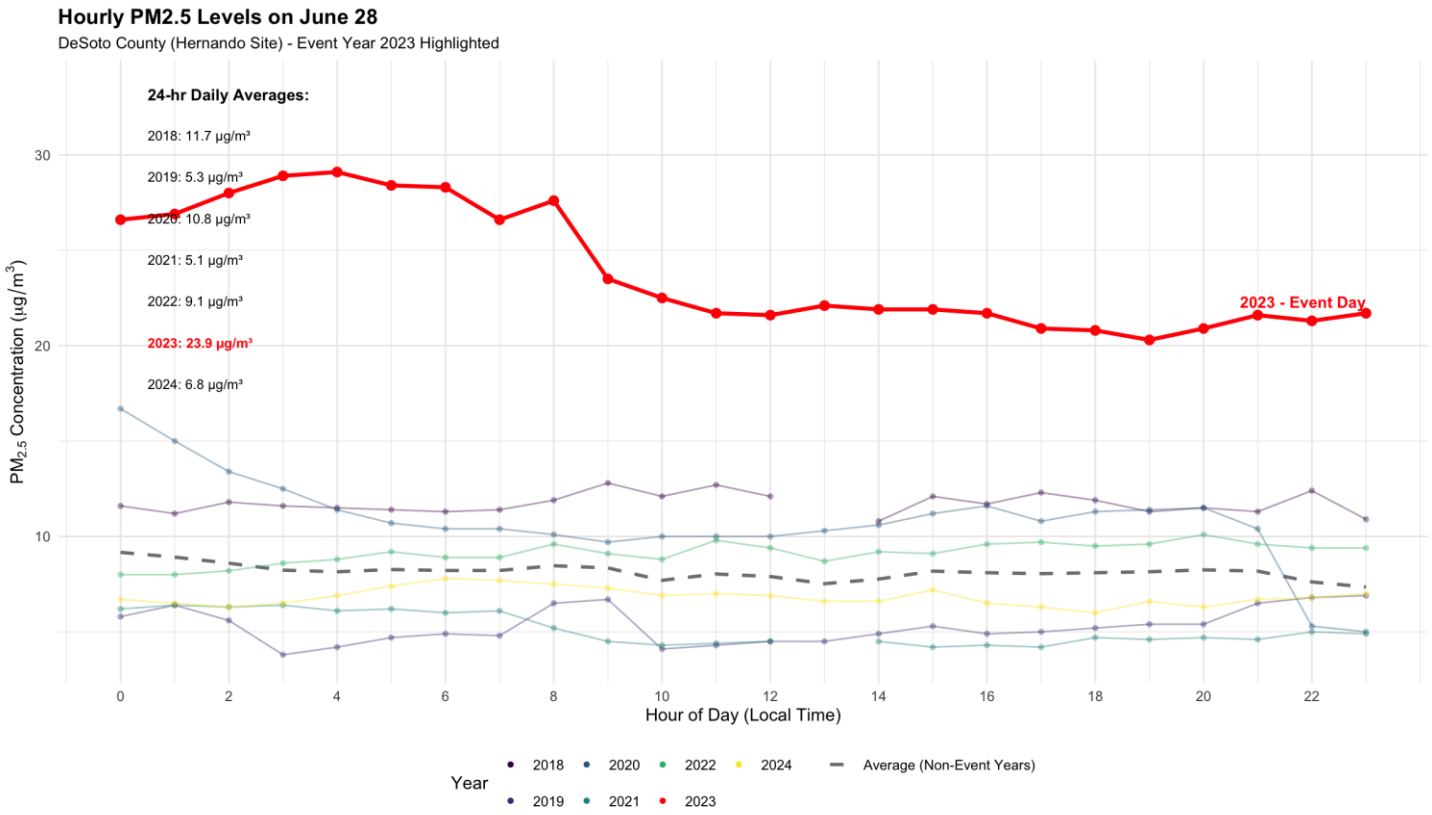
This large-scale setup is further explained by the overlaid 24-hour back trajectories. The HYSPLIT analysis confirms extremely stagnant conditions, with very limited air parcel movement at the surface. This combination of a persistent, overlying smoke plume and poor local dispersion created ideal conditions for trapping pollutants, leading directly to the elevated PM2.5 values observed at the Hernando monitor.



The GOES-East True Color image from 2321 UTC (6:21PM CDT) on June 28th, 2023, shows a expansive batch of Canadian smoke over the Midsouth, South, and Southeast, that had moved over the area during the previous days, becoming trapped underneath both a strengthening Upper-Level Ridge in combination with surface High-Pressure, continuing to elevate the PM2.5 values at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	06/28/23	27.5	27.8	28.9	29.8	30	29.3	29.2	27.5	28.5	24.4	23.4	22.6	22.5	23	22.8	22.8	22.6	21.8	21.7	21.2	21.8	22.5	22.2	22.6	24.85	30

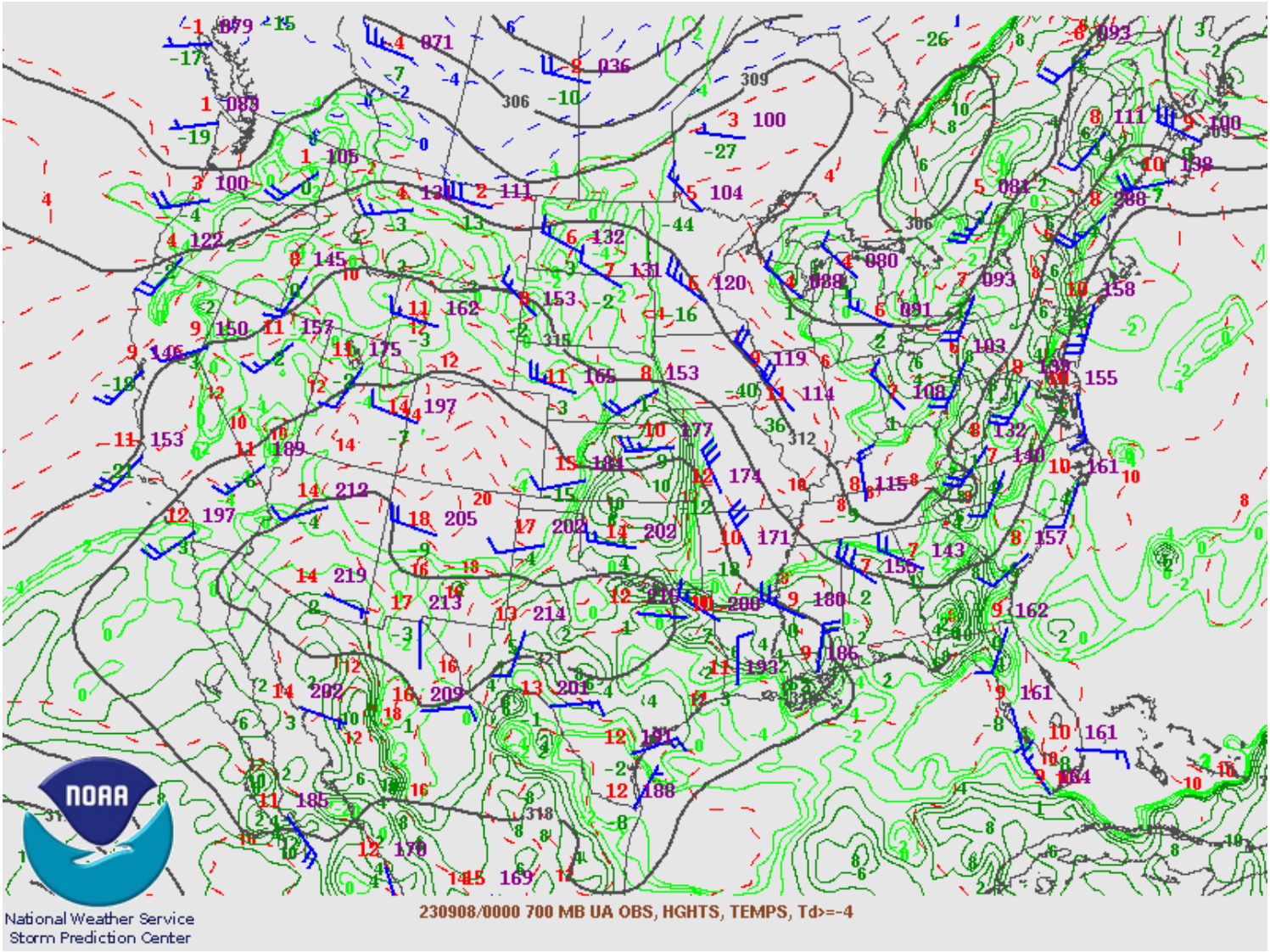
On June 28th, hourly PM2.5 data from the Hernando monitor show elevated concentrations throughout the day in the twenties, as a pre-existing batch of Canadian smoke that moved in days prior behind frontal passage became trapped under stable stagnant conditions, resulting in the daily PM2.5 average at the Hernando monitor to read 24.85ug/m^3.

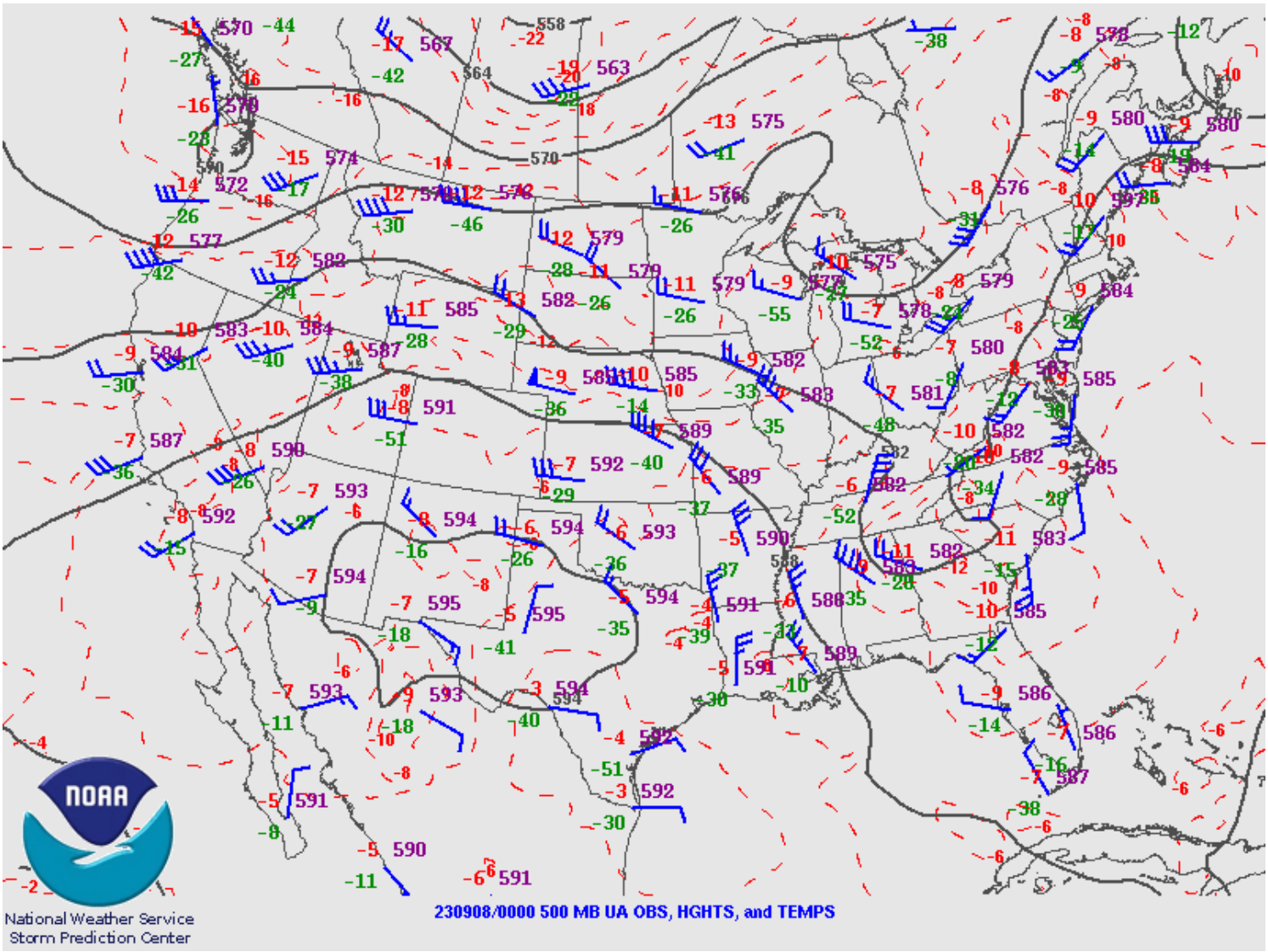


The hourly time series plot for June 28th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

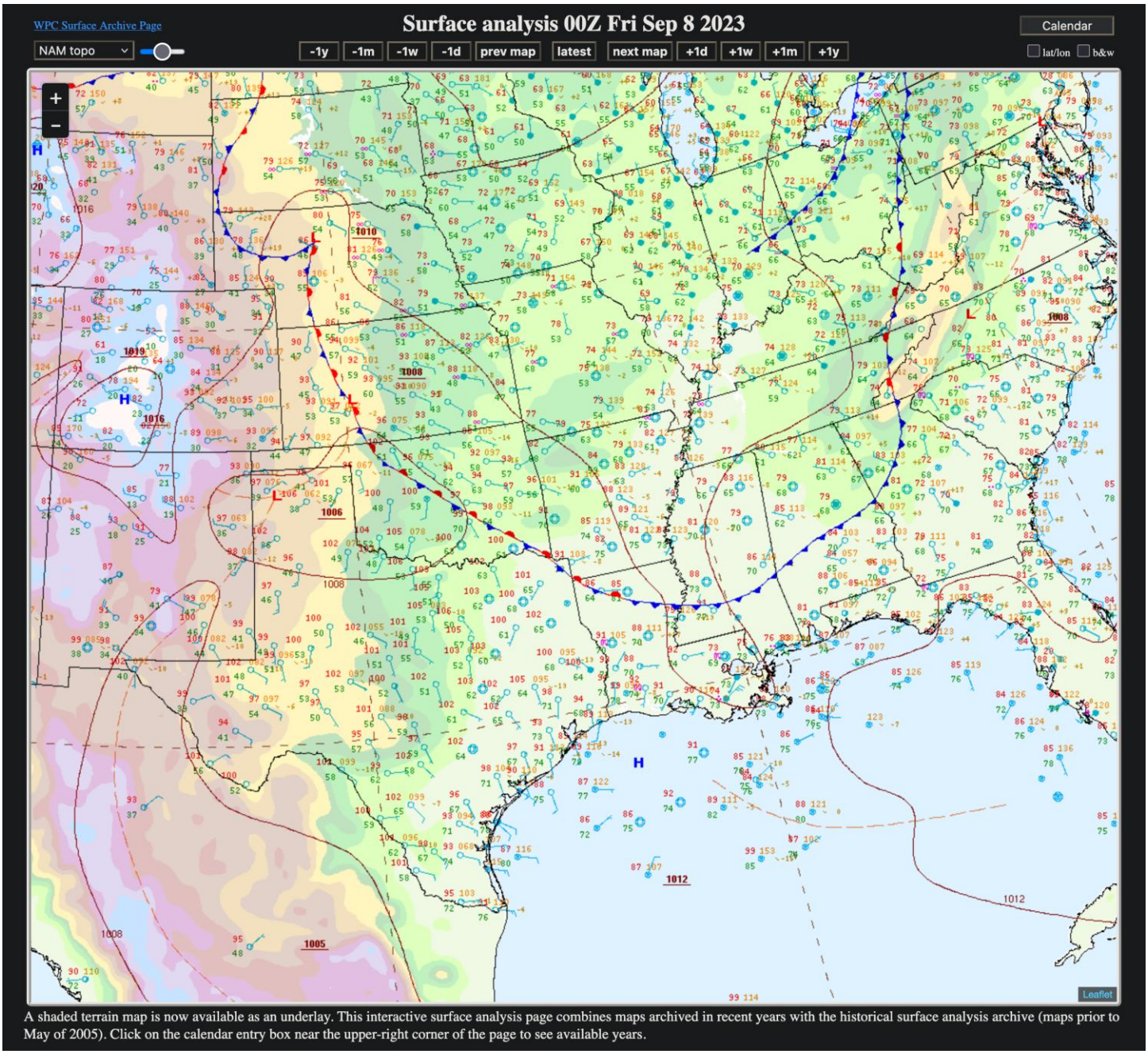
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
Sept 7- 8, 2023	Canadian Wildfire	RF	28-033-0002	Hernando	27.9, 30.2	1	Canadian Wildfire C Exceptional Event Demonstration: Sept 7 - 8, 2023

Synopsis: Numerous wildfires were ongoing up in northwestern Canada and much like the synoptic setup in June, there was an Upper-Level Low pressure system just north the Great Lakes at 700mb whereas on the backside of the Upper-Level Low, northerly flow helped transport smoke from the Canadian wildfires deep into the midsection of the United States. At the surface, a frontal boundary pushed through the Midsouth during the early morning hours on Friday, September 7th, with a fresh batch of Canadian wildfire smoke issuing in over the area behind the front.



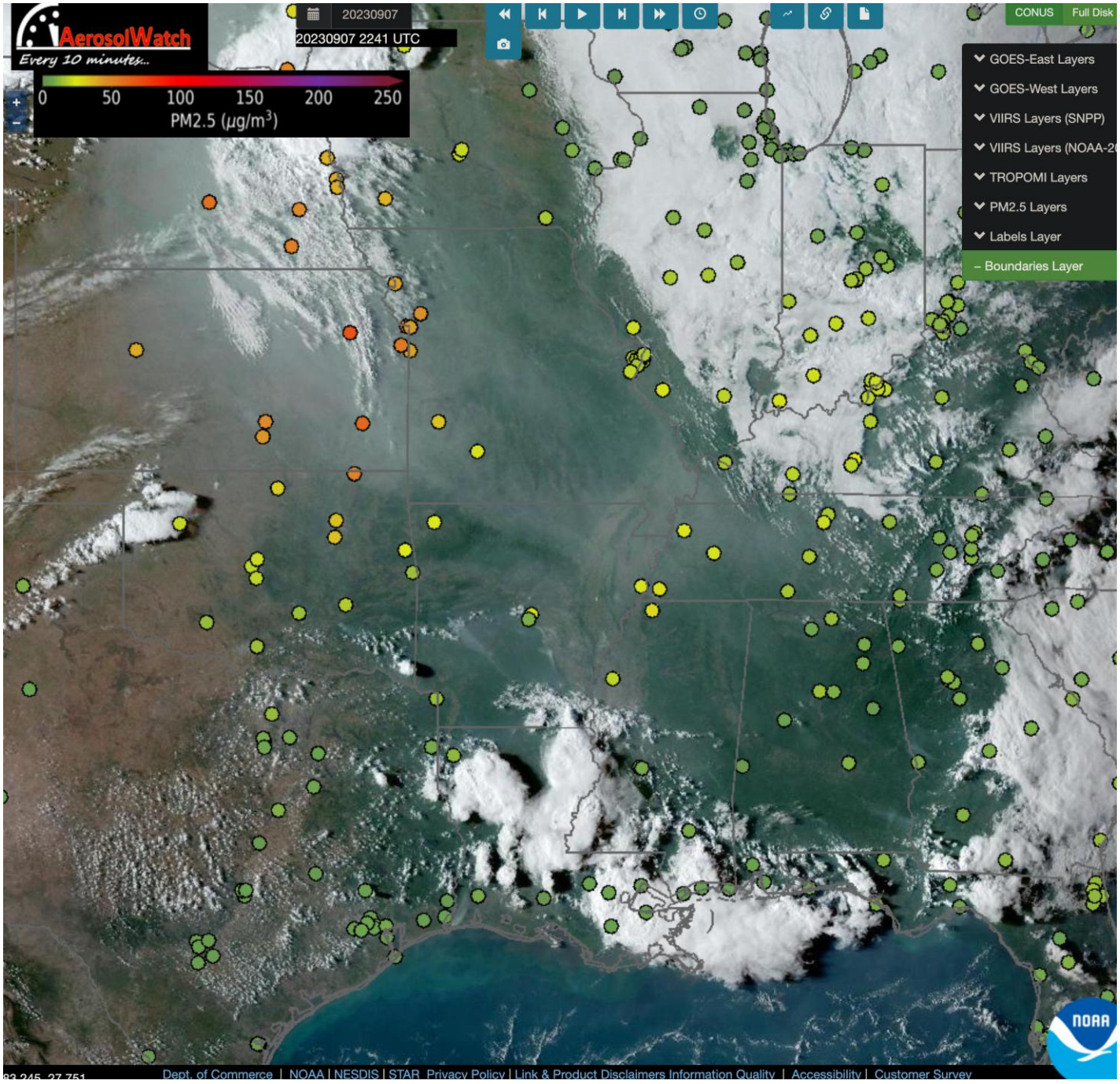


The two upper-level maps both 700mb and 500mb from 00z, September 8th (7PM CDT, September 7th) show a closed Low at 700mb over Quebec and a trough at 500mb extending down the spine of the Appalachians, with an upper-level Ridge over the four-corner region of the United States. This setup provided a pathway for smoke from the Canadian wildfires to transport into the United States.



Surface analysis from 00Z Friday, September 8th (7PM CDT, Thursday, September 7th) shows a cold front that has passed through the Midsouth which would allow a fresh batch of smoke from the Canadian wildfires to transport over the area, elevating PM2.5 values at the Hernando monitor.

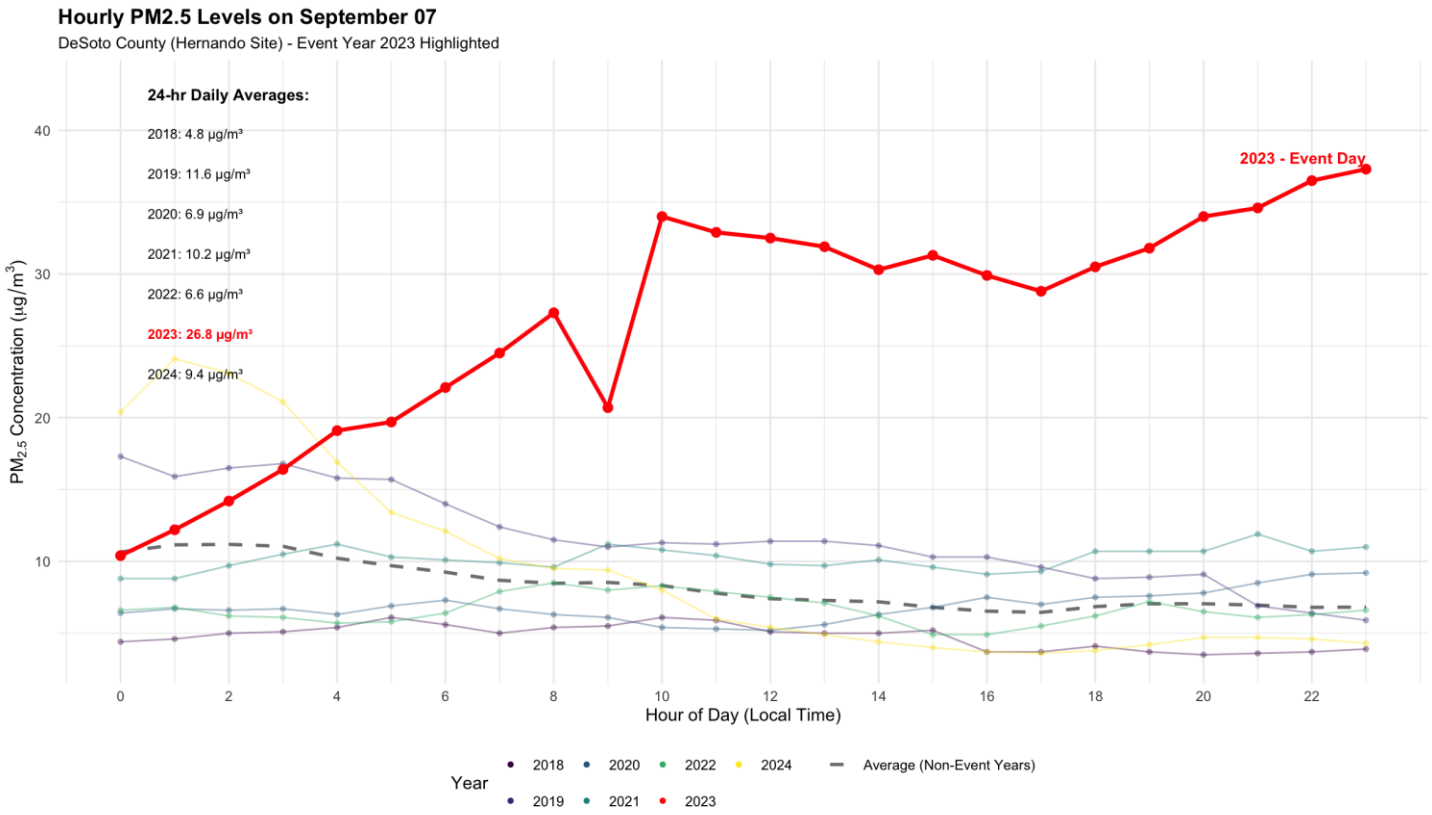
The AirNow-Tech Navigator image for September 7th, 2023, along with a 24-hour back trajectory shows Canadian smoke being advected into the Midsouth from the northwest at 1500m level. At the lower levels (10m and 50m) very little movement indicating stable/stagnant conditions, albeit movement from the north where higher smoke concentrations are located. Notice orange and red 24-hour PM2.5 values upstream located in the Midwest. This combination of ongoing smoke transport from the north and poor dispersion at the surface created ideal conditions for trapping pollutants, leading to elevated PM2.5 values.



The GOES-East True Color image from 2241 UTC (5:41PM CDT) on September 7th, 2023, shows a batch of Canadian smoke moving into the Midsouth from the northwest behind frontal boundary elevating the PM2.5 values at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	09/07/23	11.3	13.1	15.1	17.3	20	21.6	23	25.4	28.2	21.6	34.9	33.8	33.4	32.8	31.2	32.2	30.8	29.7	31.4	32.7	34.9	35.5	37.4	38.2	27.99	38.2

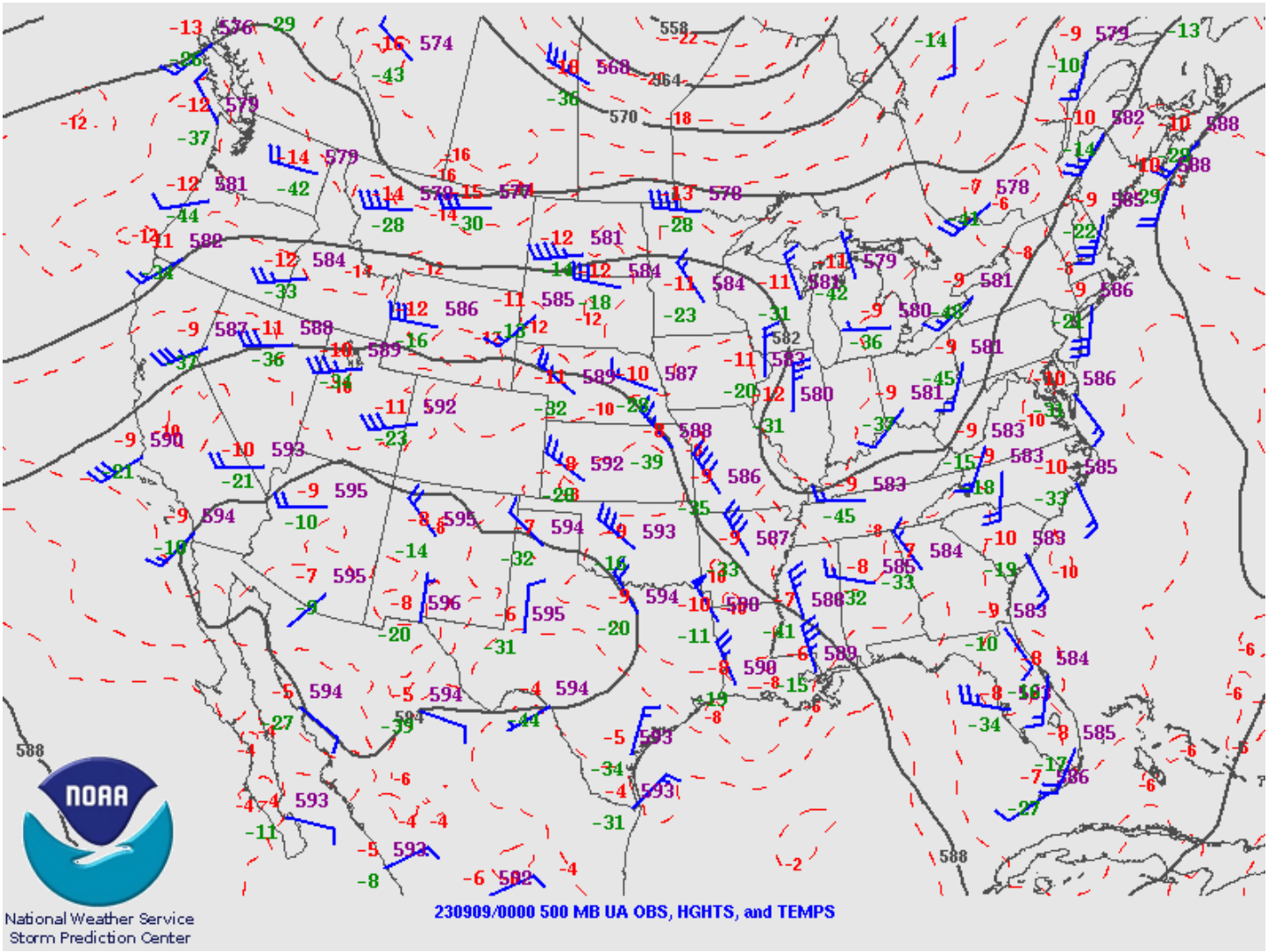
The impact of the cold front on air quality at the Hernando monitor is evident in the hourly PM2.5 data for September 7th. Prior to the frontal passage in the early morning, concentrations were low, registering in the teens. However, a sharp and dramatic increase in PM2.5 values occurred immediately following the passage of the front with values climbing into the upper twenties and thirties. This increase is attributed to the front advecting a fresh plume of smoke from the Canadian wildfires into the region.



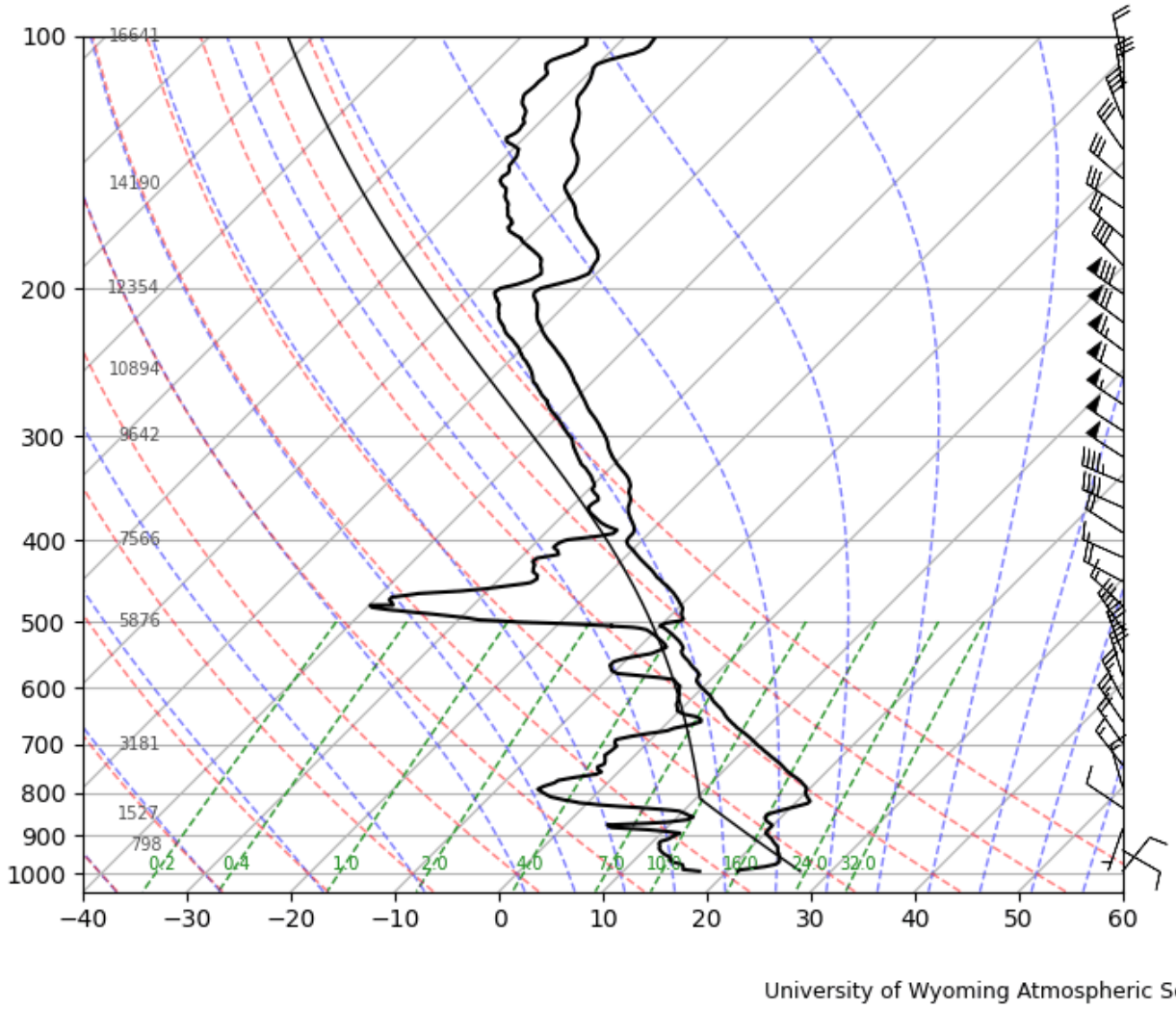
The hourly time series plot for September 7th, provided above, clearly demonstrates that the 24-hour PM2.5 daily average on this day was significantly higher than those observed in previous, non-event years.

The data illustrates a distinct shift in air quality following a frontal passage in the pre-dawn hours. In the wake of this front, smoke from Canadian wildfires was advected into the region from the north, causing PM2.5 concentrations to rise and remain elevated for the duration of the day. This sustained influx of transported smoke is the primary reason for the high readings and the resulting elevated daily average at the Hernando monitor.

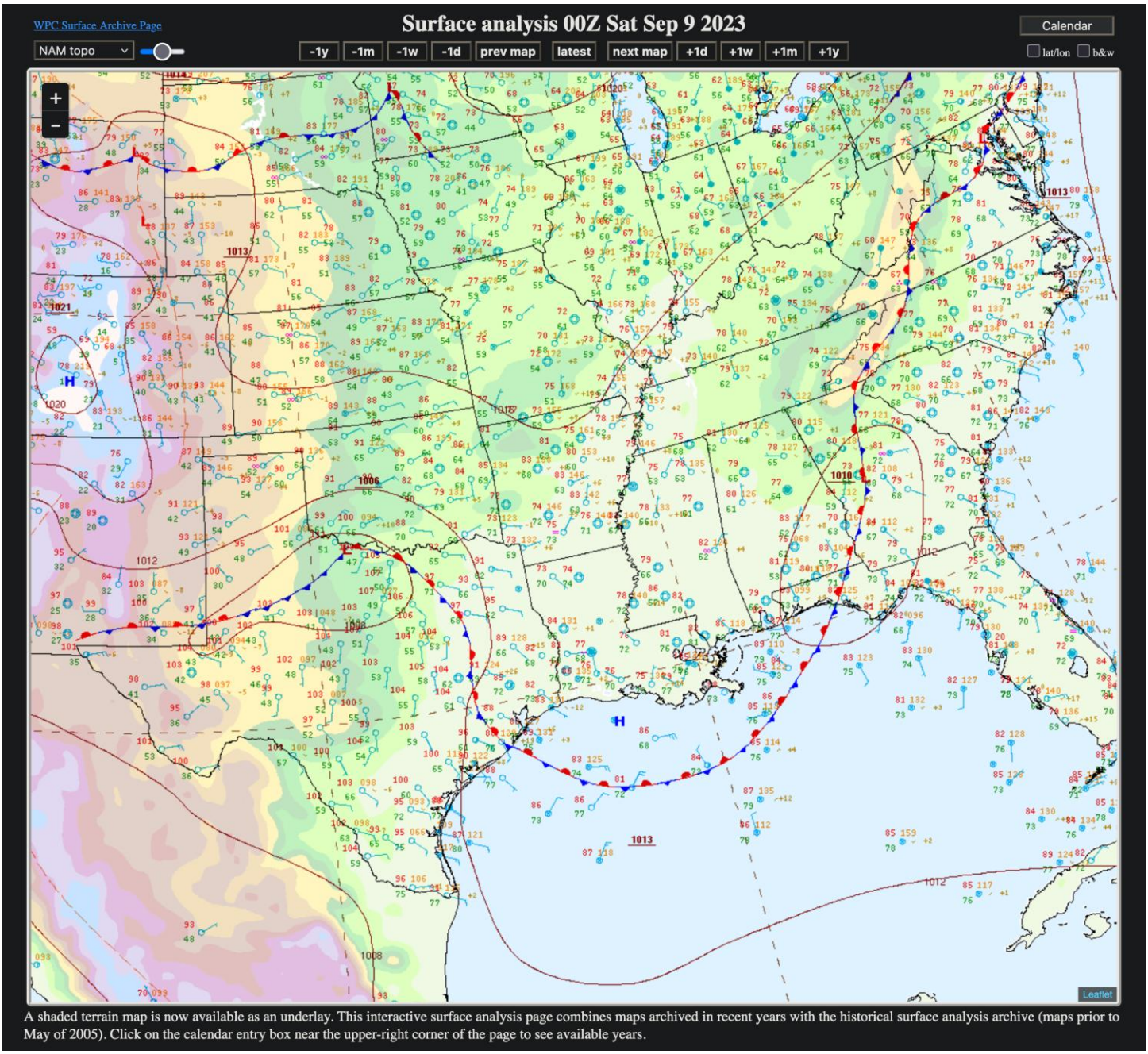
September 8th: Persistent Upper-Level troughing at the upper levels across the eastern United States continued to issue in fresh batches of Canadian wildfire smoke into the Midsouth from the northwest. At the surface, large area of High-Pressure dominated the Midsouth, leading to a very stable/stagnant air-mass, helping trap pollutants close to the surface, elevating PM2.5 values at the Hernando monitor.



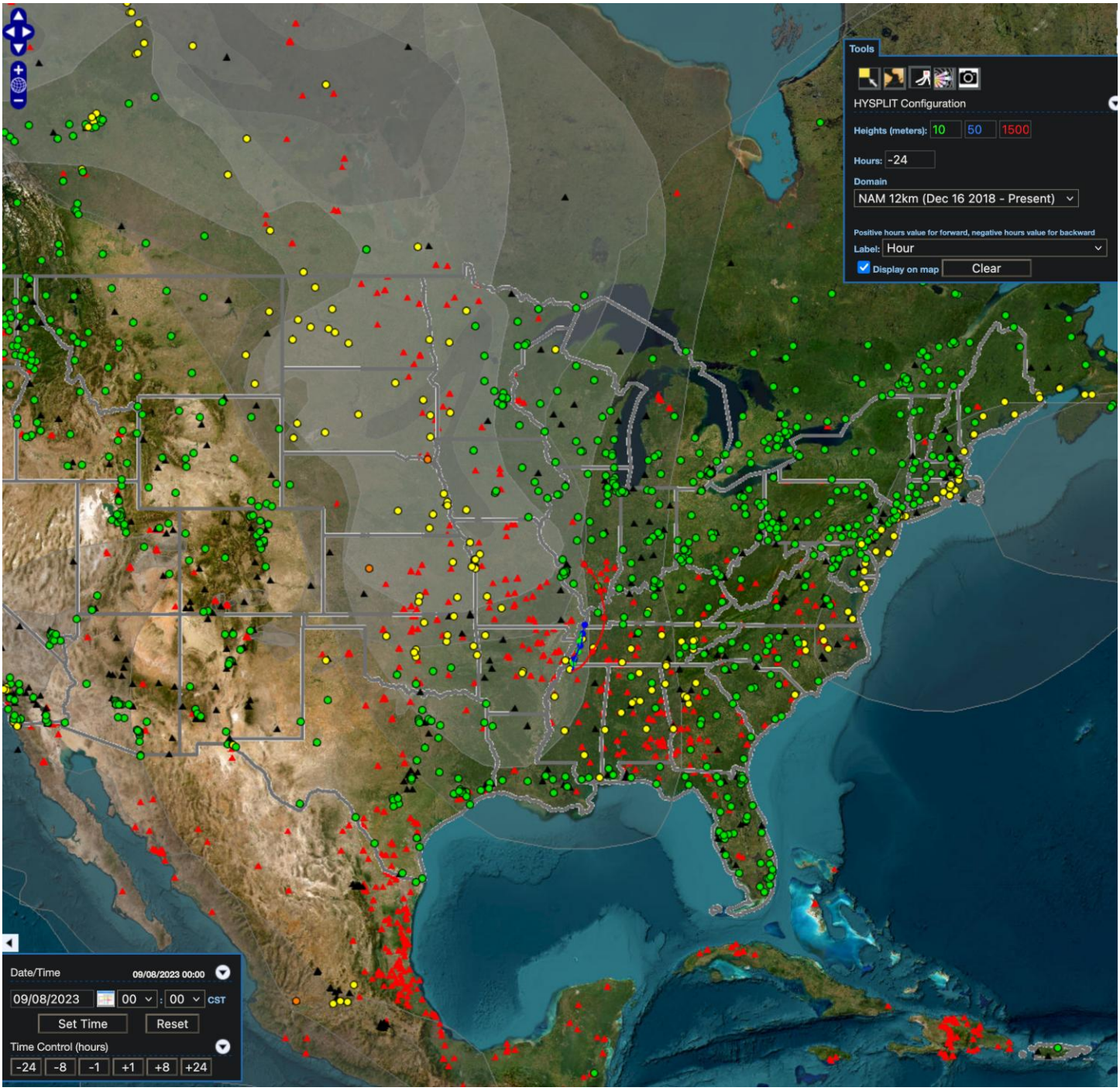
The upper-level map at 500mb from 00z, September 9th (7PM CDT, September 8th) show a deepening trough at 500mb extending down the spine of the Appalachians into Florida, with an Upper-Level Ridge over the Four-Corners region of the United States. This setup provided a pathway for smoke from the Canadian wildfires to transport into the United States.



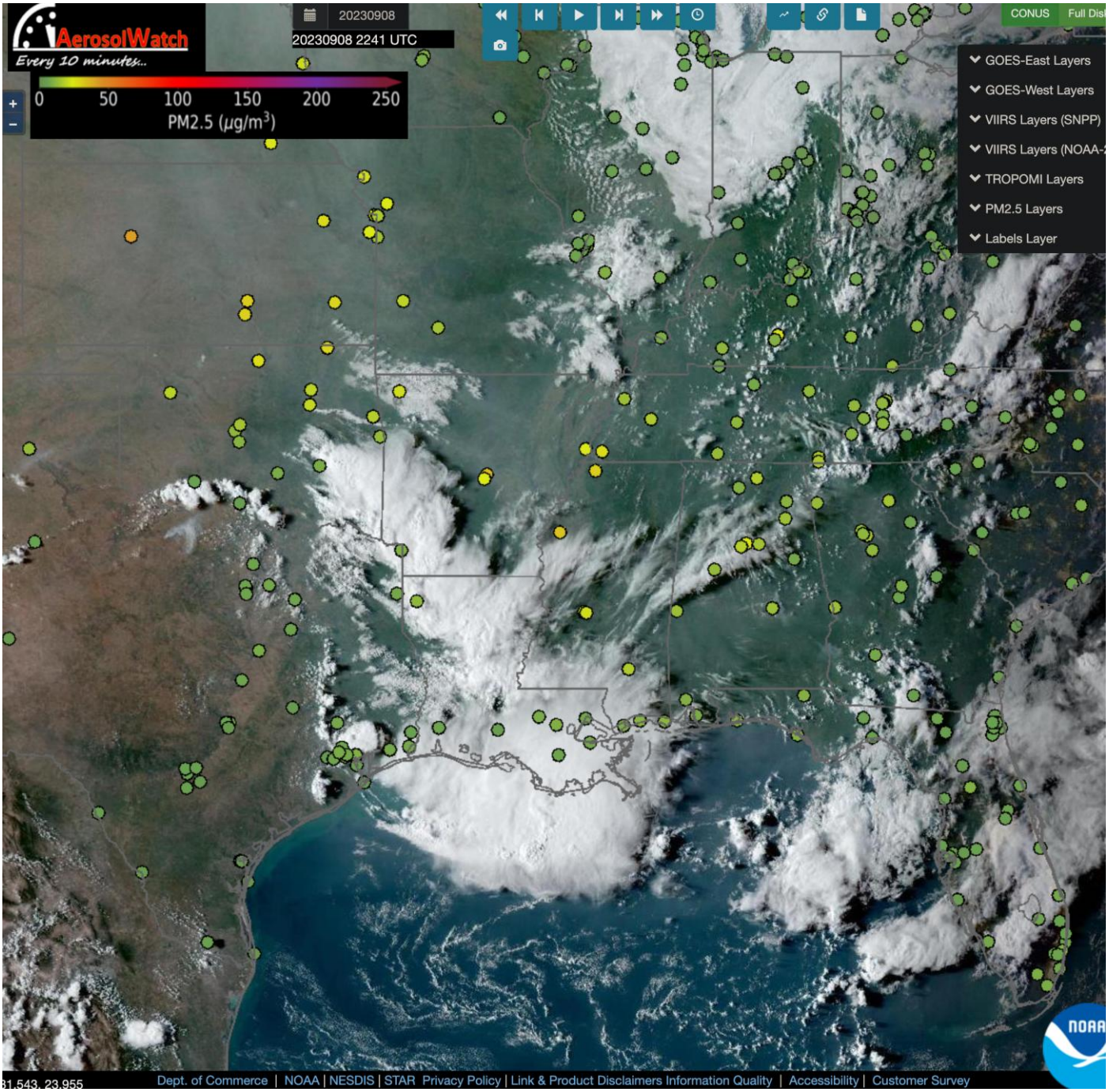
12Z Skew T from Little Rock Arkansas on the morning of September 8th, 2023, show very shallow nocturnal inversion that had established overnight, trapping Canadian wildfire smoke near the surface, elevating PM2.5 values at the Hernando monitor.



Surface analysis from 00Z Saturday, September 9th (7PM CDT, Friday, September 8th) shows High-Pressure dominating the Midsouth after previous days frontal passage setting up stable/stagnant conditions, trapping Canadian wildfire smoke that transported in from previous day over the area, elevating PM2.5 values at the Hernando monitor.



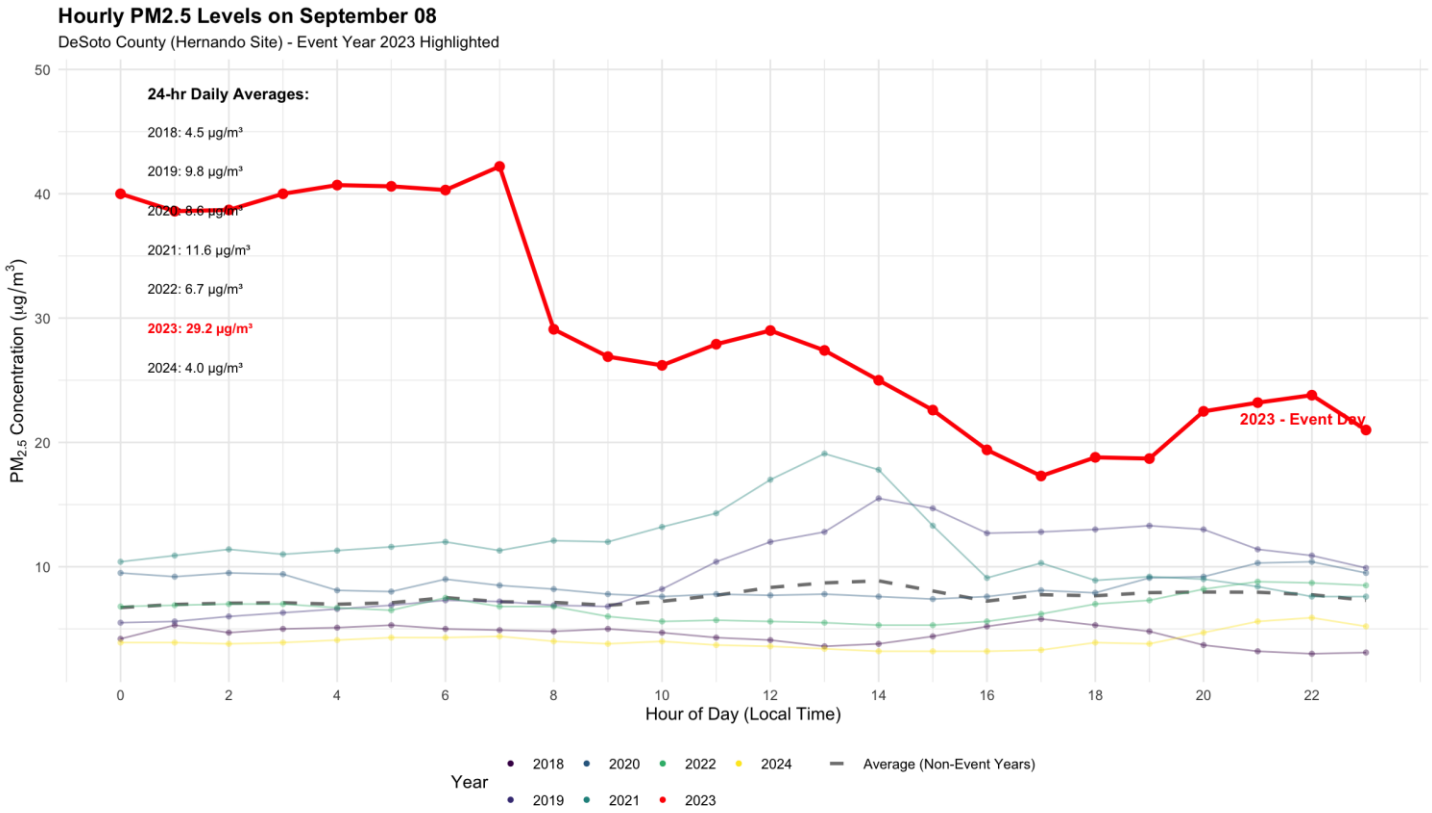
The AirNow-Tech Navigator image for September 8th, 2023, along with a 24-hour back trajectory shows Canadian smoke continues to being advected into the Midsouth from the north at 1500m level. While at the lower levels (10m and 50m) indicate very little movement, confirming stagnant surface conditions. This combination of ongoing smoke transport from the north and poor dispersion at the surface created ideal conditions for trapping pollutants, leading to elevated PM2.5 values



The GOES-East True Color image from 2241 UTC (5:41PM CDT) on September 8th, 2023, shows a batch of Canadian smoke that had moved into the Midsouth from the northwest behind previous days frontal boundary, elevating the PM2.5 values at the Hernando 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
HERNANDO/280330002/PM2.5-88101/3	09/08/23	40.9	39.5	40.6	41.9	42.6	42.5	42.2	43.1	30	27.8	27.1	28.8	29.9	28.3	25.9	23.5	20.3	18.2	19.7	19.6	23.4	24.1	24.7	21.9	30.27	43.1

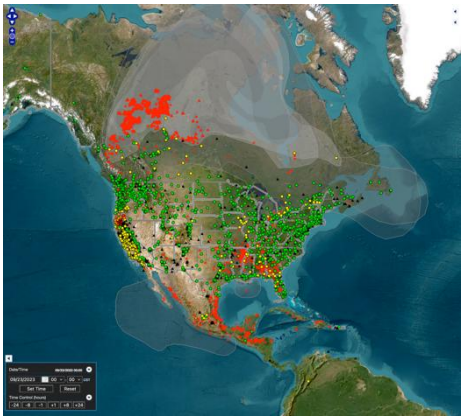
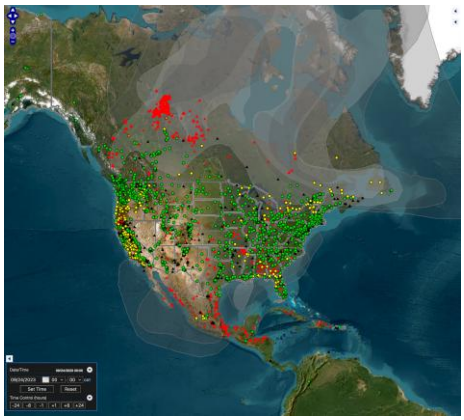
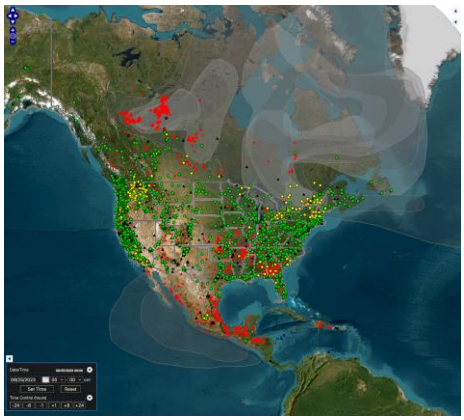
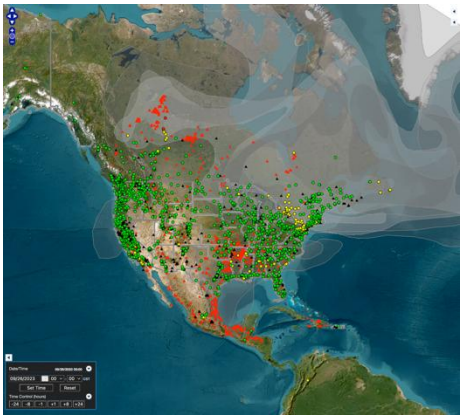
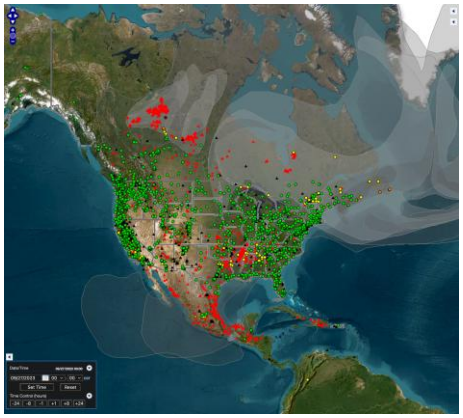
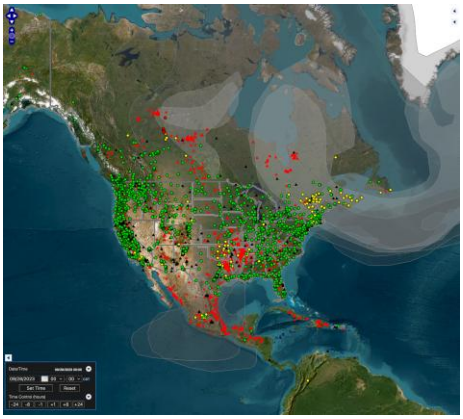
On September 8th, hourly PM2.5 data from the Hernando monitor show very high readings in the early morning hours in the forties thanks to previously mentioned nocturnal inversion that setup overnight, trapping smoke near the surface. As the day progressed, minimal mixing with daytime heating allowed PM2.5 values to fall slightly in the twenties for the majority of the day resulting in the daily PM2.5 average at the Hernando monitor to read 30.27ug/m^3.

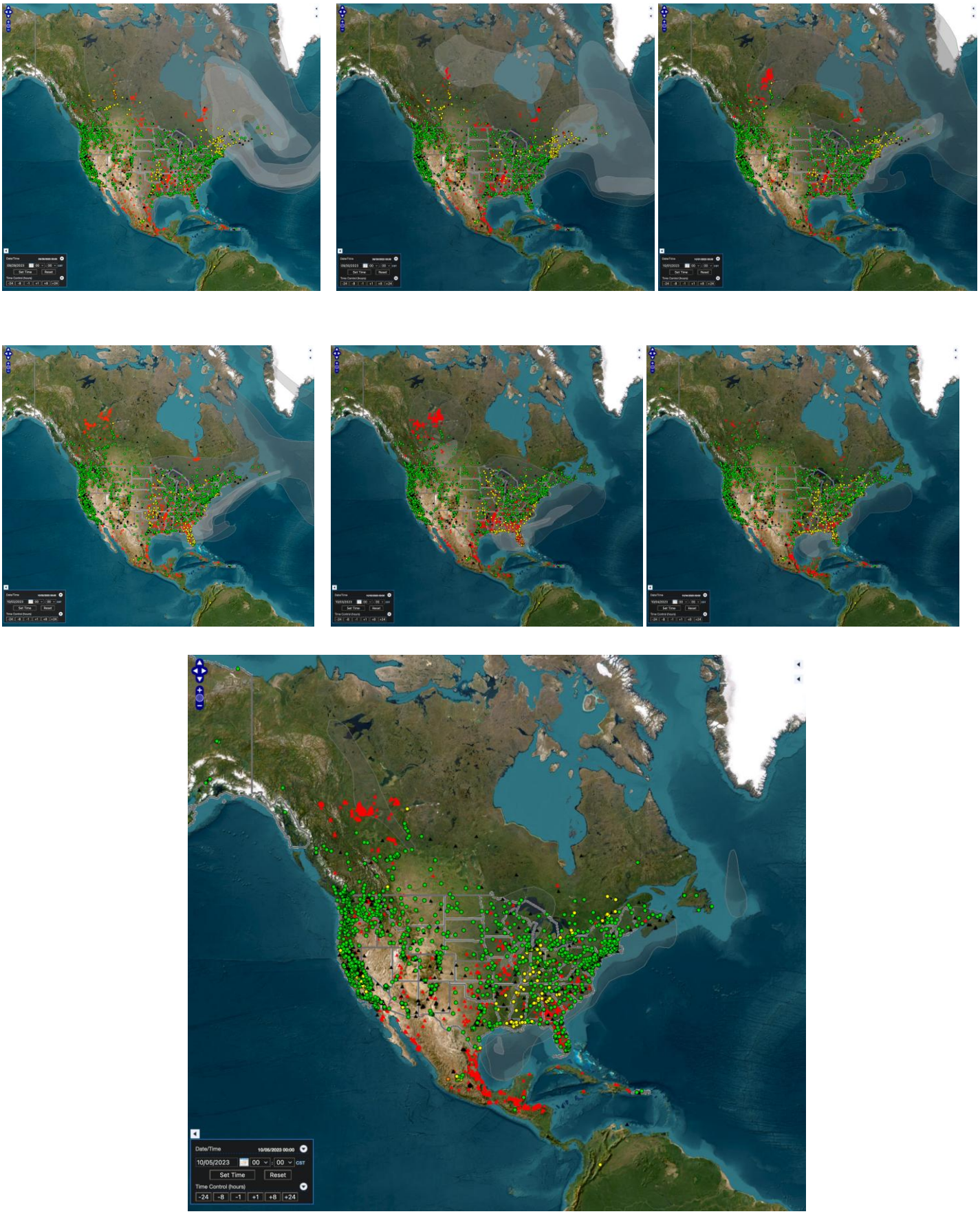


The hourly time series plot for September 8th, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando 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 3 - 5, 2023	Canadian WF	RF	28-033-0002	Hernando	18.8, 40.17, 38.94	1 & 2	Canadian Wildfire C Exceptional Event Demonstration: October 3 - 5, 2023

Synopsis: In the days leading up to the exceptional event at the Hernando monitor, numerous wildfires in both northwestern Canada as well as northeastern and eastern Canada 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 Hernando monitor in Mississippi.

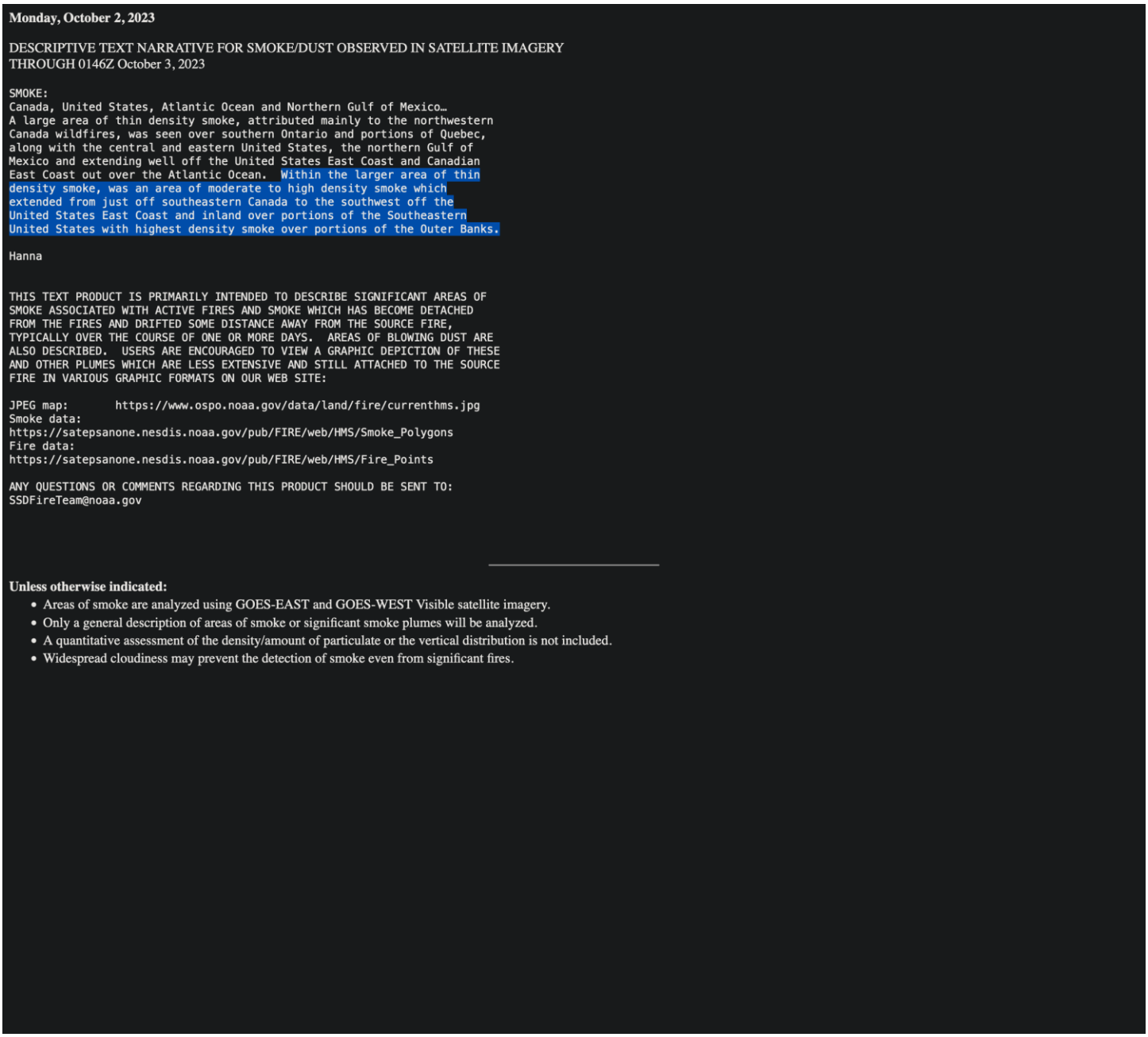


A series of AirNowTech Navigator images from September 23rd through October 5th, 2023, shows the progression of Canadian wildfire smoke. The smoke from fires in western Canada moved eastward and merged with smoke

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:

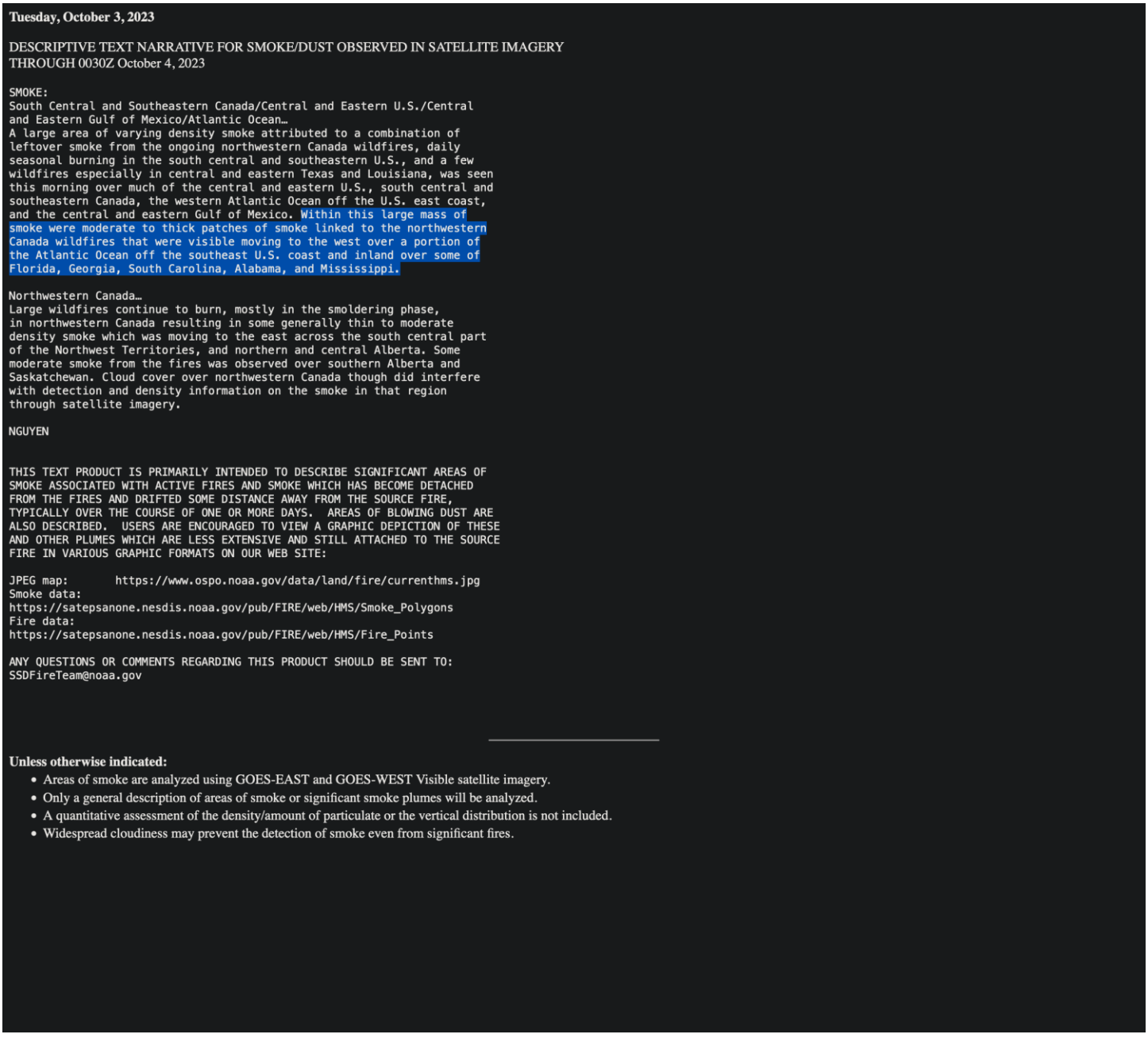
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

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:

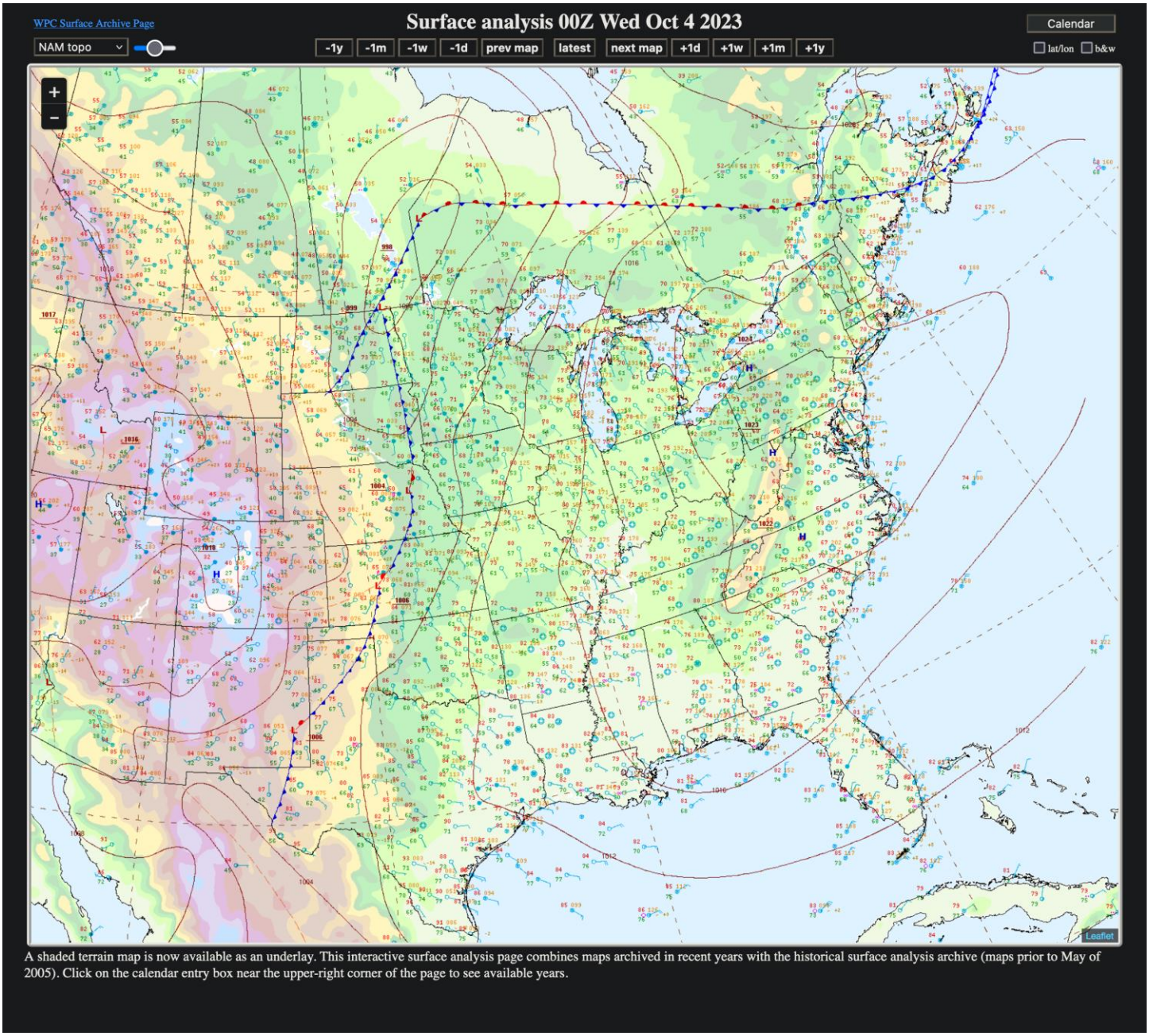
JPEG map: https://www.ospo.noaa.gov/data/land/fire/currenthms.jpg
Smoke data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Smoke_Polygons
Fire data:
https://satepsanone.nesdis.noaa.gov/pub/FIRE/web/HMS/Fire_Points

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

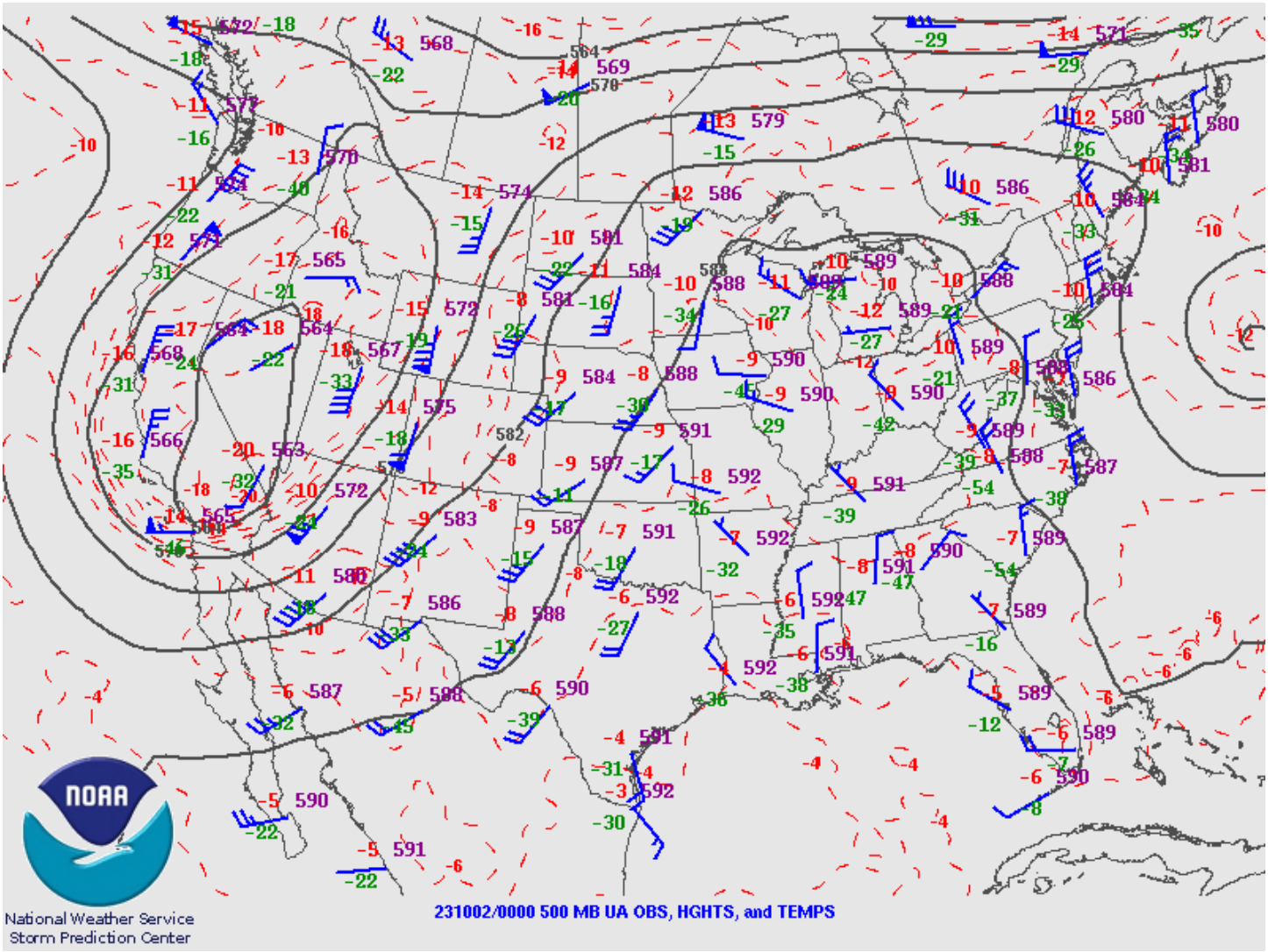
Unless otherwise indicated:

- 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.

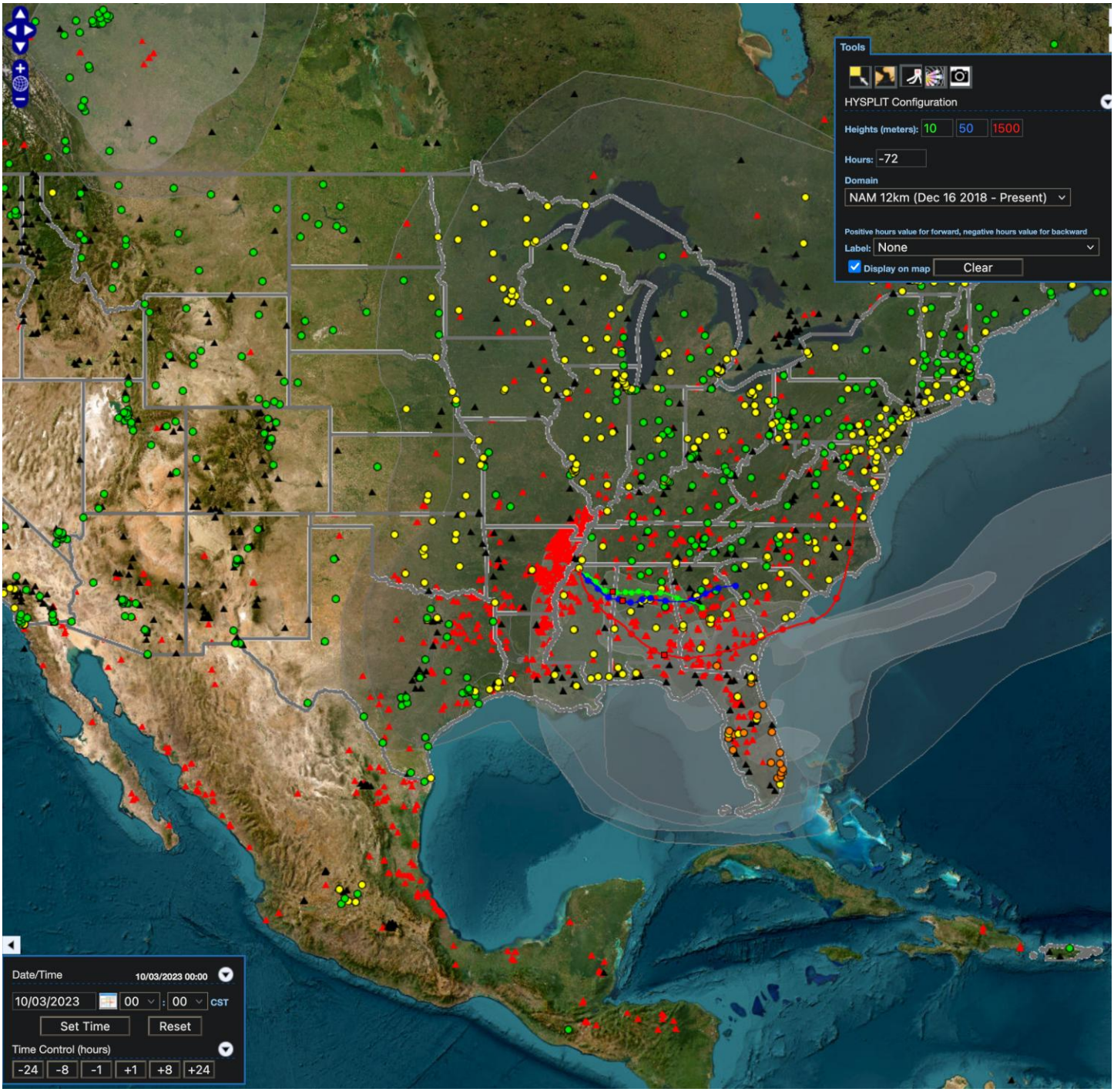
The 2023 Satellite Smoke Text Product (https://www.ssd.noaa.gov/PS/FIRE/DATA/SMOKE/2023/2023J040054.html) narrative dated October 4th, 2023, at 0030Z (corresponding to October 3rd, 2023, at 7:30 PM CDT) describes smoke linked to Canadian wildfires visible over the Atlantic Ocean off the southeastern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



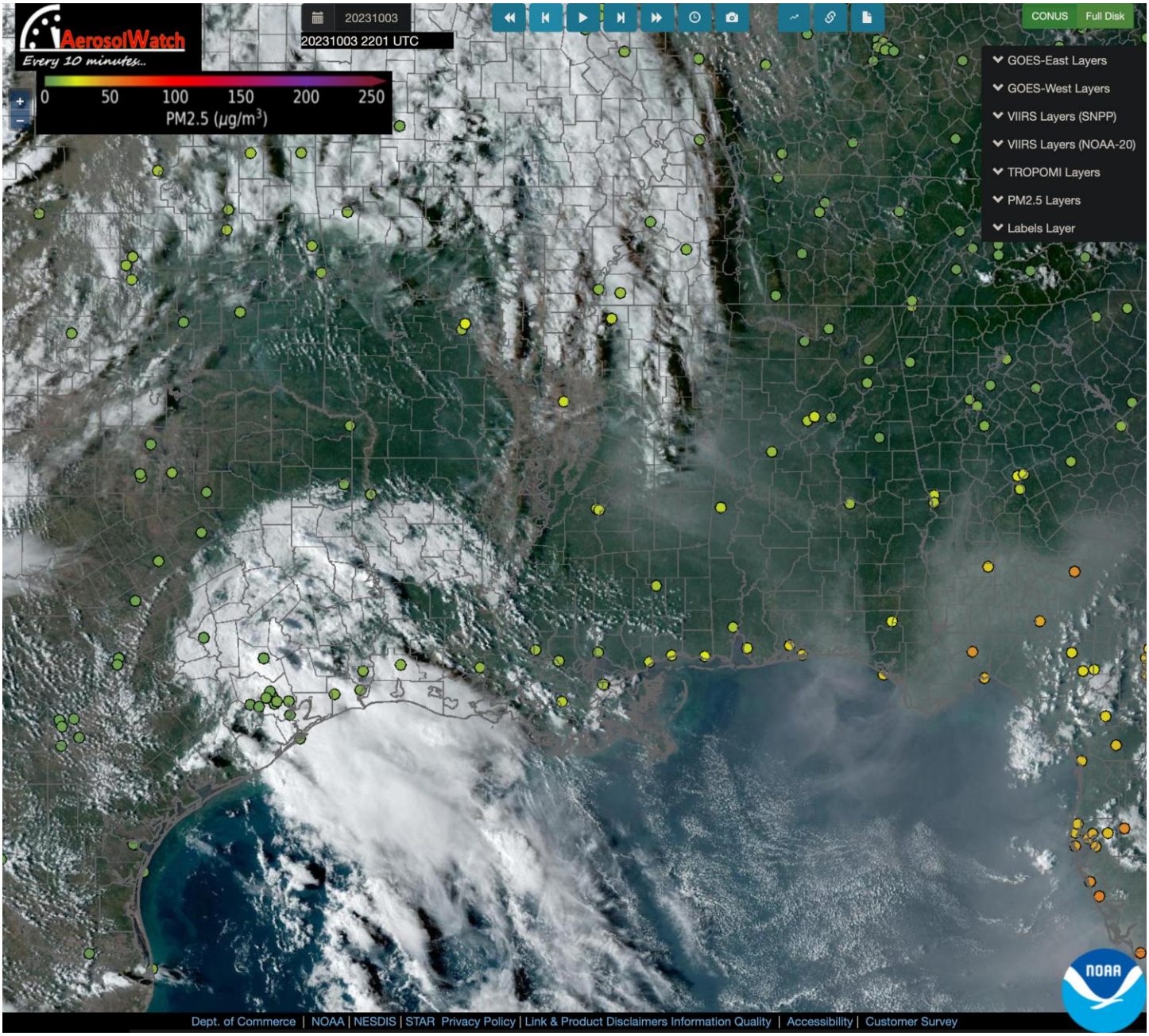
The 00z surface analysis Wednesday, October 4th (Tuesday, October 3rd, 2023, at 7PM CDT) shows expansive 1022mb High-Pressure parked over the Mid-Atlantic states where anticyclonic flow is allowing smoke from Canadian wildfires to funnel into the southeastern United States via northeasterly flow on the south side of the High, elevating PM2.5 values all across the Gulf States.



The 500 mb upper-level analysis from 00Z, October 2nd, 2023 (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.



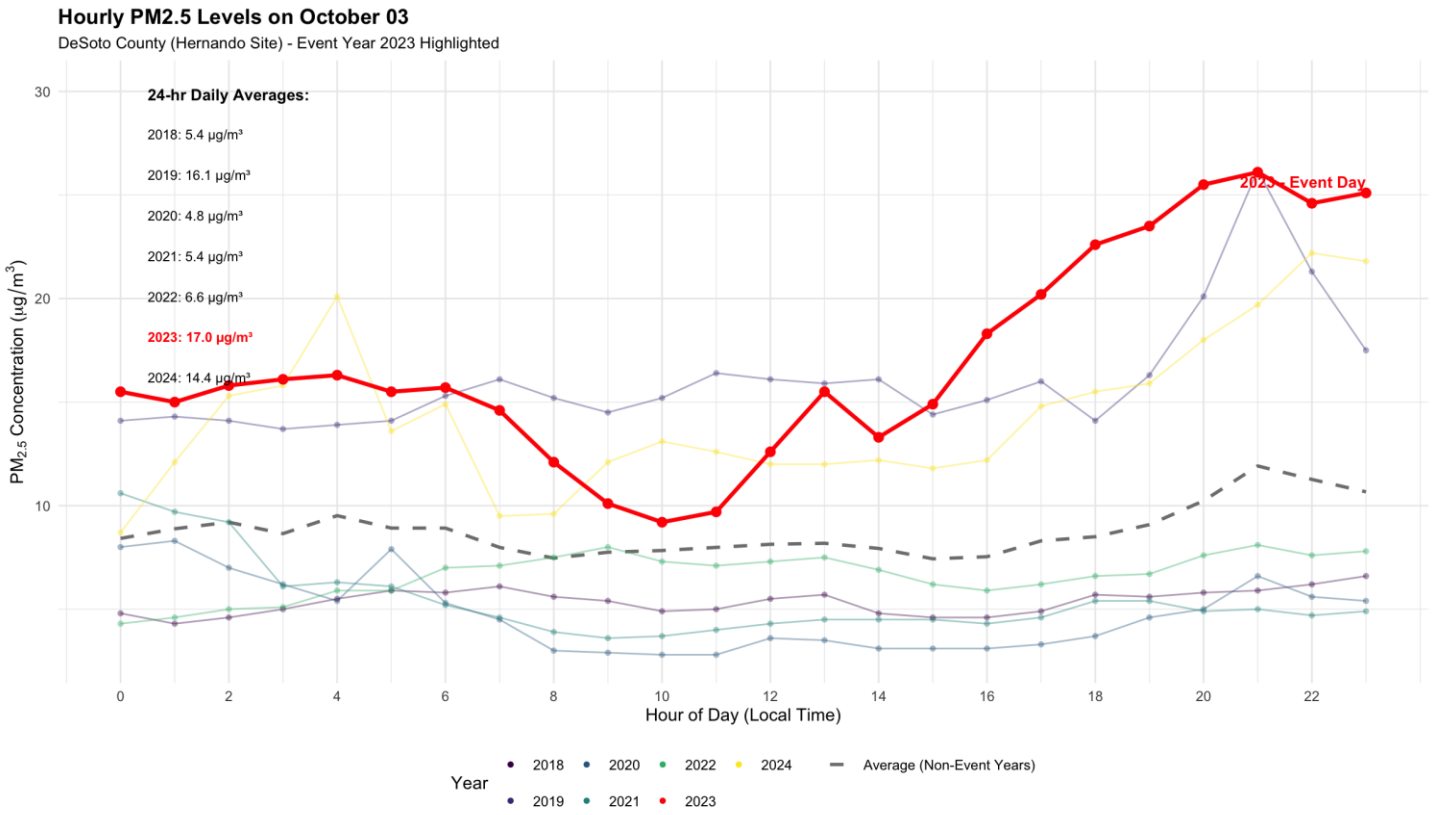
The AirNowTech Navigator image from October 3rd, 2023, shows smoke from Canadian wildfires moving over Florida and westward into the Gulf States. Many locations in Florida recorded daily PM2.5 averages in the Unhealthy for Sensitive Groups (USG) range. The smoke's westward transport is demonstrated by 10m, 50m, and 1500m 72-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 Hernando 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.

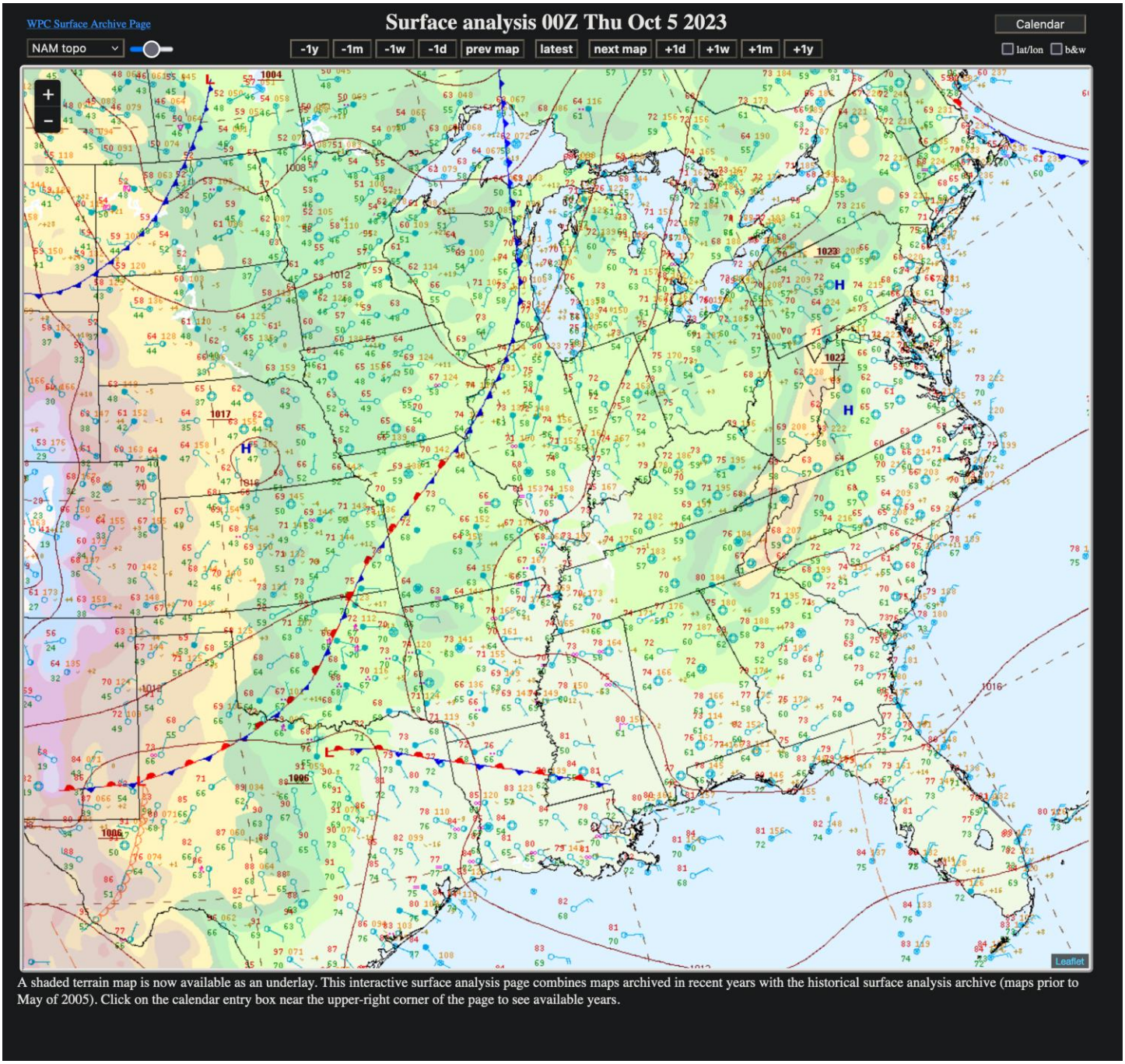
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	10/03/23	16.4	16.9	17.7	18	18.2	17.4	17.6	15.5	13	11	10.1	10.6	13.5	16.4	14.2	15.8	19.2	21.1	23.5	24.4	26.4	27	25.5	27	18.18	27

The DeSoto monitor's hourly PM2.5 values on October 3rd were in the teens up until the late afternoon, going into the evening and overnight hours, as smoke moved westward from Florida into Mississippi, resulting in a 24-hour daily average of 18.18 µg/m^3.

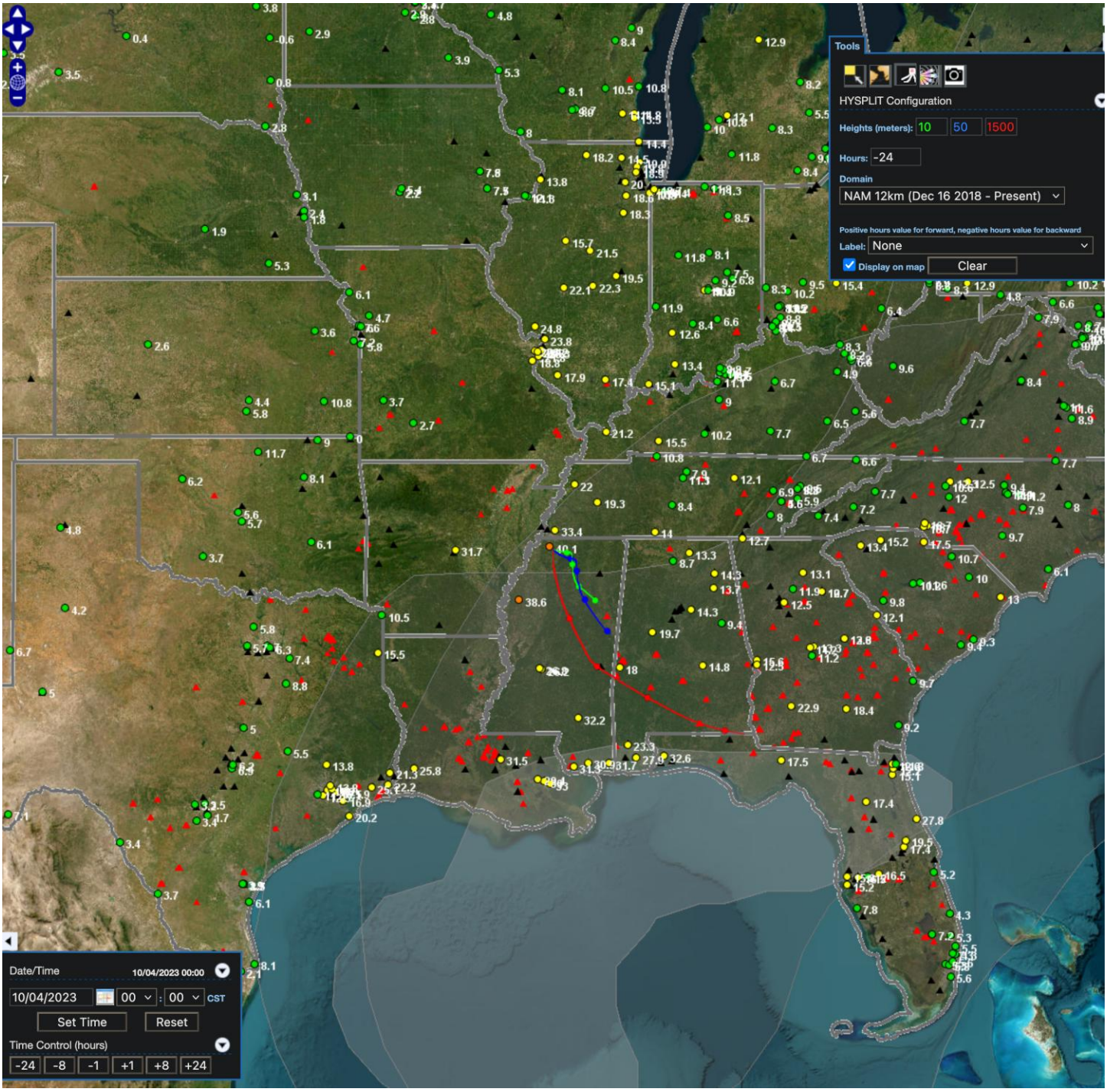


The hourly time series plot for October 3rd, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

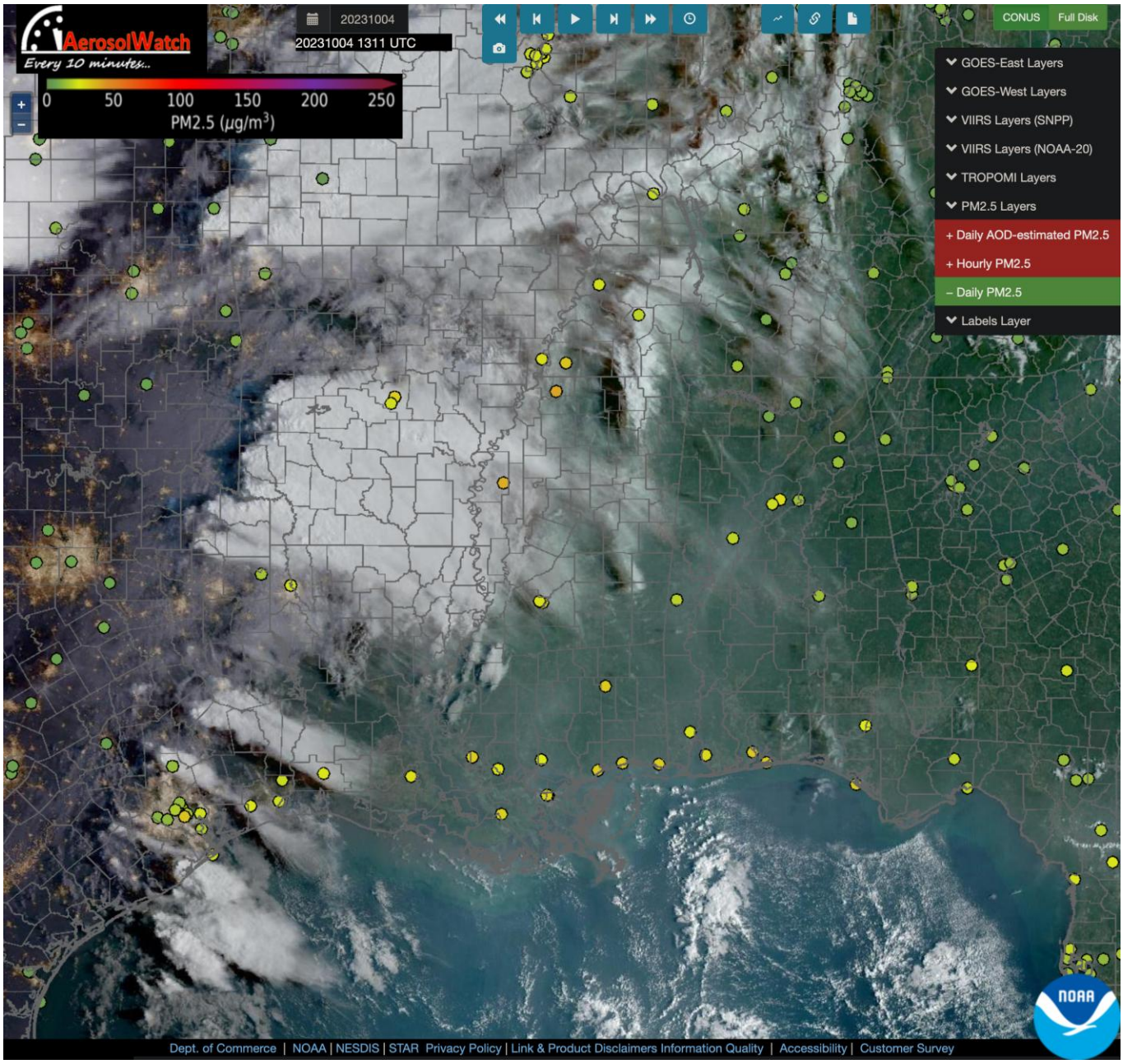
October 4th: October 4th experienced conditions similar to the previous day as High-Pressure anchored across the Mid-Atlantic region continued to steer smoke from Quebec's Canadian wildfires, south. The smoke moved southward over the northeastern United States and Mid-Atlantic coastline, then across 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 Thursday, October 5th (Wednesday, October 4th, 2023, at 7PM CDT) shows continued expansive 1023mb 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 east of the High and eventually easterly 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 Hernando monitor with a 24-hour average in the USG range, reading 40.1ug/m^3.

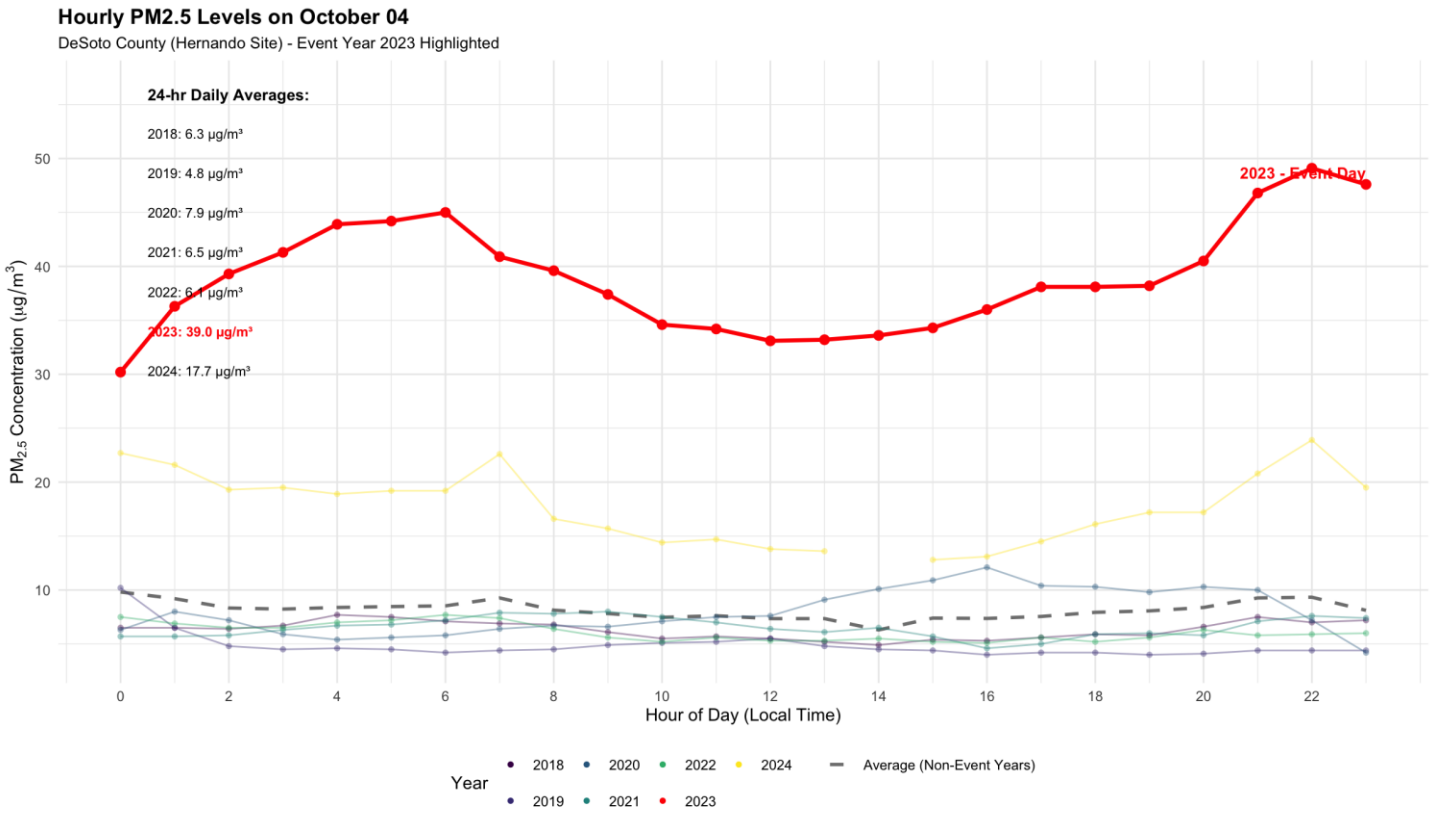


GOES East True Color imagery from October 4th, 2023, at 1311 UTC shows dense smoke shield from the Canadian wildfires over the panhandle of Florida, Alabama, moving westward into Mississippi, elevating PM2.5 values.

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
HERNANDO/280330002/PM2.5-88101/3	10/04/23	32.1	38.2	41.2	43.2	45.8	46.1	46.9	41.8	40.5	38.3	35.5	35.1	34	34.1	34.5	35.2	36.9	39	39	39.1	41.4	47.7	50	48.5	40.17	50

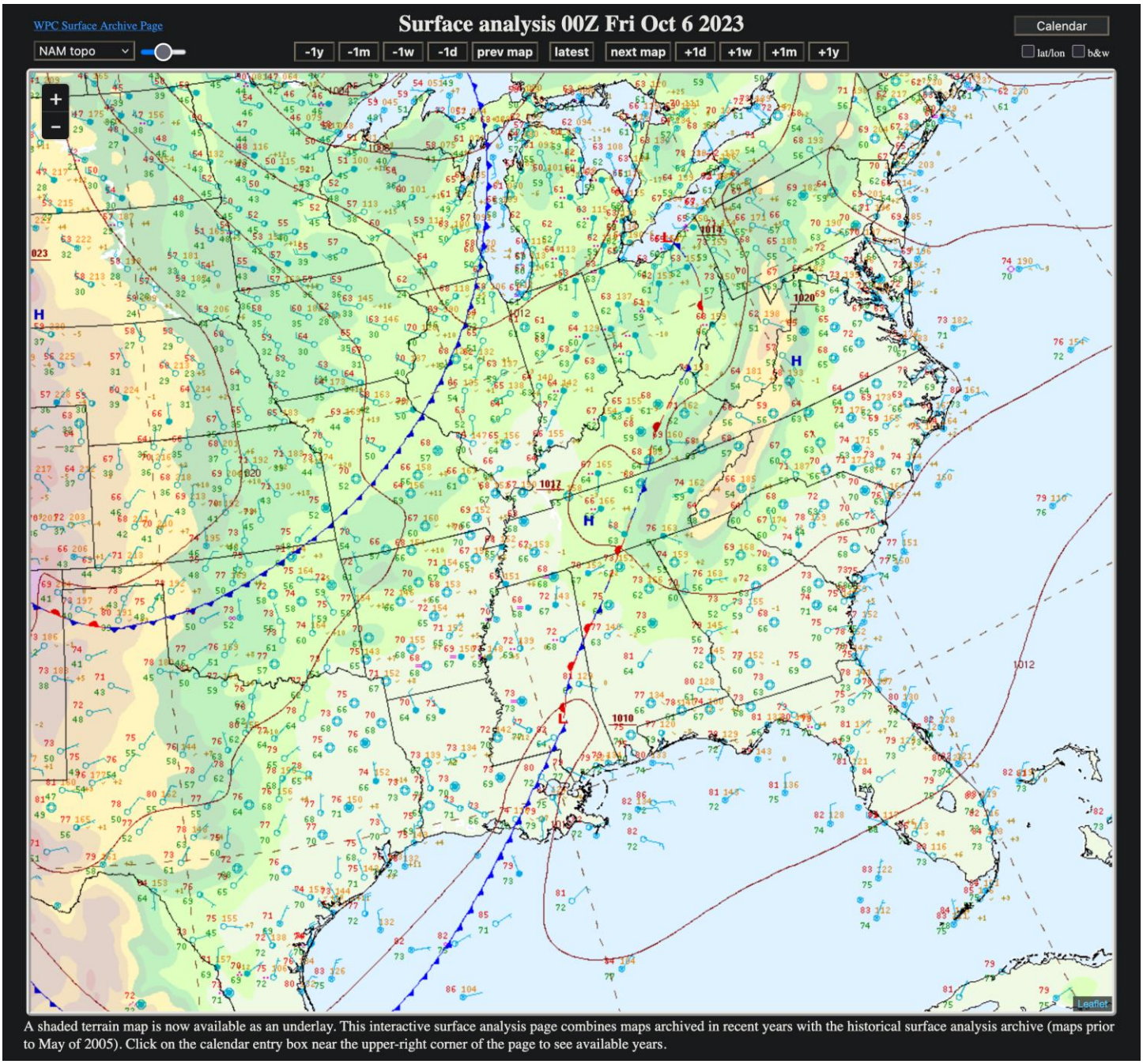
On October 4th, hourly PM2.5 values at the Hernando monitor were significantly elevated, remaining in the thirties and forties for the majority of the day and reaching a one-hour maximum concentration of 50.0 µg/m^3 late in the evening.

This event was attributed to the aforementioned surface High-Pressure system positioned over the Mid-Atlantic. The clockwise circulation around this high steered a dense plume of Canadian wildfire smoke westward across the southeast and into the Midsouth. As a direct result of this prolonged smoke exposure, the Hernando monitor recorded a 24-hour daily average PM2.5 concentration of 40.17 µg/m^3.

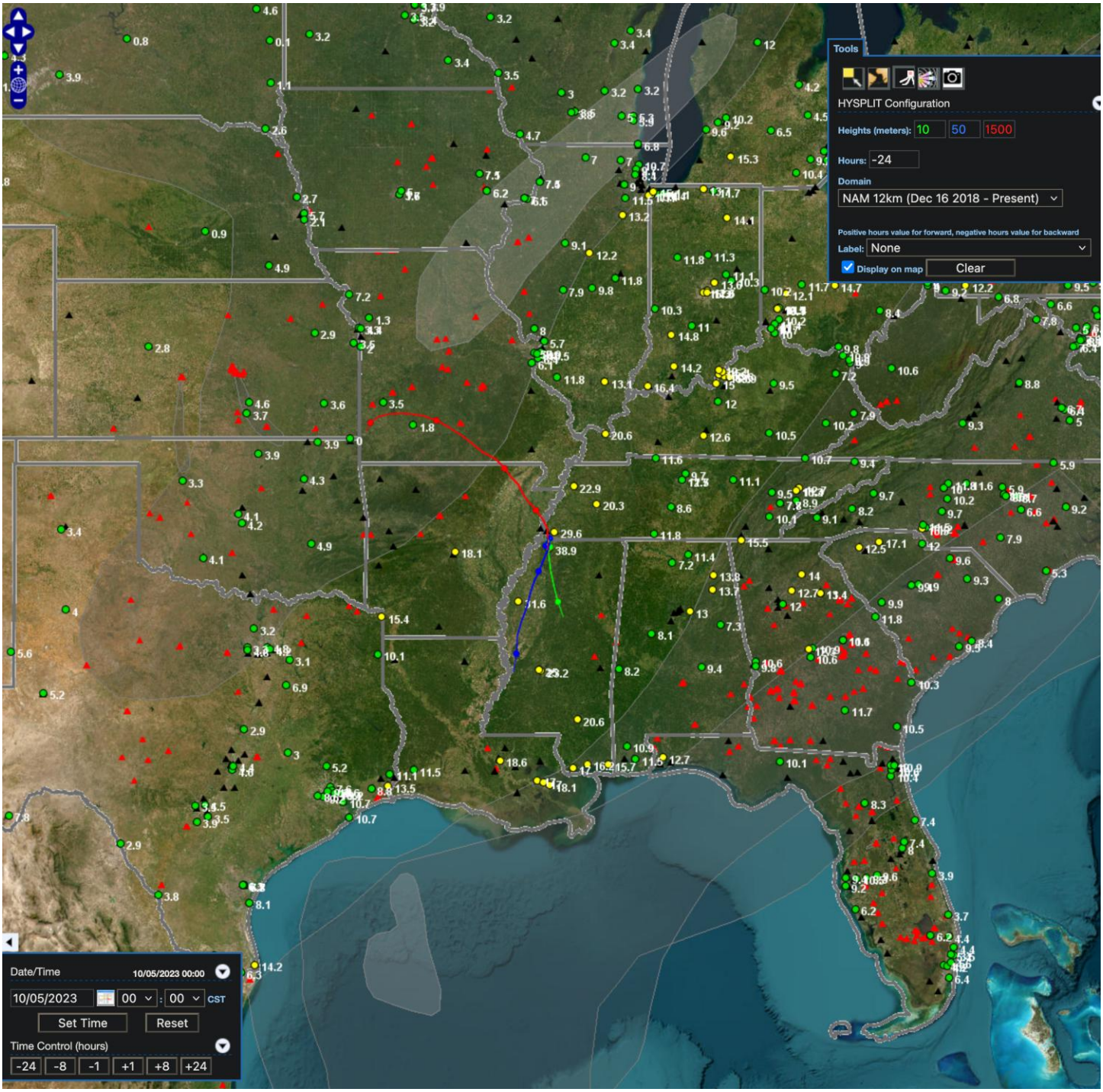


The hourly time series cross-section in the figure above illustrates PM2.5 levels over the past seven years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations throughout October 4th, 2023, as smoke-laden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

October 5th: On October 5th, High-Pressure remained in firm control over the Midsouth, trapping Canadian smoke over the area that had transported in during the previous days, keeping PM2.5 values elevated. Canadian smoke in and around the Memphis MSA was very dense both on the 4th and the 5th, resulting in the Hernando monitor to have daily exceedances on both days. For the 5th of October, the daily PM2.5 average at the Hernando monitor was 38.9 µg/m^3.



The 00z surface analysis Friday, October 6th (Thursday, October 5th, 2023, at 7PM CDT) shows High-Pressure dominating the Midsouth, helping enable stable/stagnant conditions, trapping previous days Canadian wildfire smoke that was transported over the area to be trapped, keeping PM2.5 elevated.

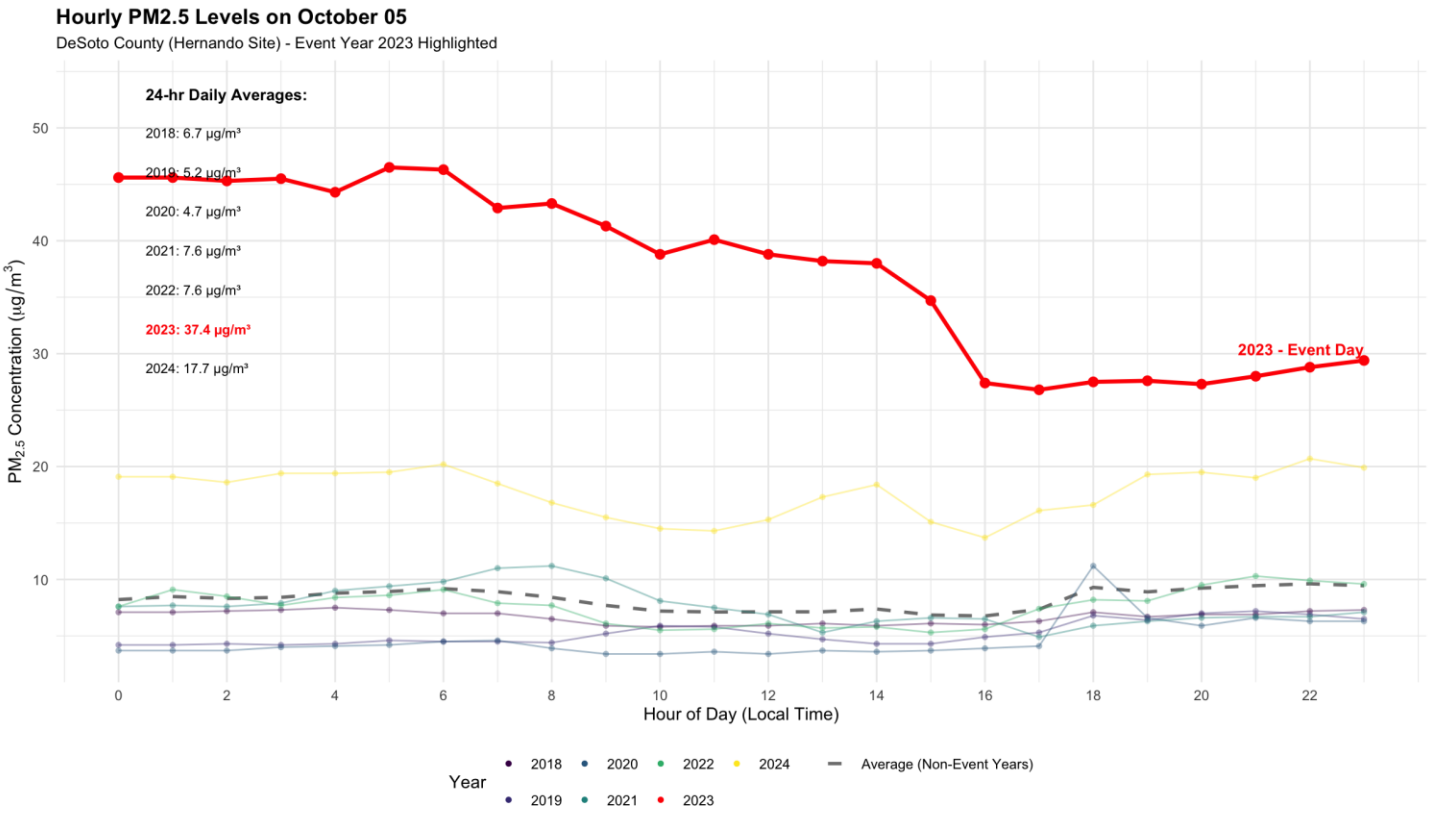


The overlaid 24-hour back trajectory analysis for the Hernando monitor on October 5th, 2023, confirms limited air parcel movement, especially at the lower 10m and 50m levels, which verify stagnant surface conditions. This poor dispersion created ideal conditions for trapping pre-existing Canadian wildfire smoke, leading to persistently elevated PM2.5 values.

It is important to note the absence of satellite-detected smoke in the accompanying AirNow-Tech Navigator image. This is attributed to widespread, heavy cloud cover over the region, which obscured the satellite's view of the lower atmosphere. Therefore, while the smoke was not visually plotted by this tool, it was understood to be present based on the transport from previous days and the measured ground-level PM2.5 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
HERNANDO/280330002/PM2.5-88101/3	10/05/23	46.5	46.5	46.2	46.4	46.2	48.4	48.2	44.8	45.2	43.2	40.7	41	39.7	39.1	38.9	35.6	29.3	28.7	29.4	29.5	29.2	29.9	30.7	31.3	38.94	48.4

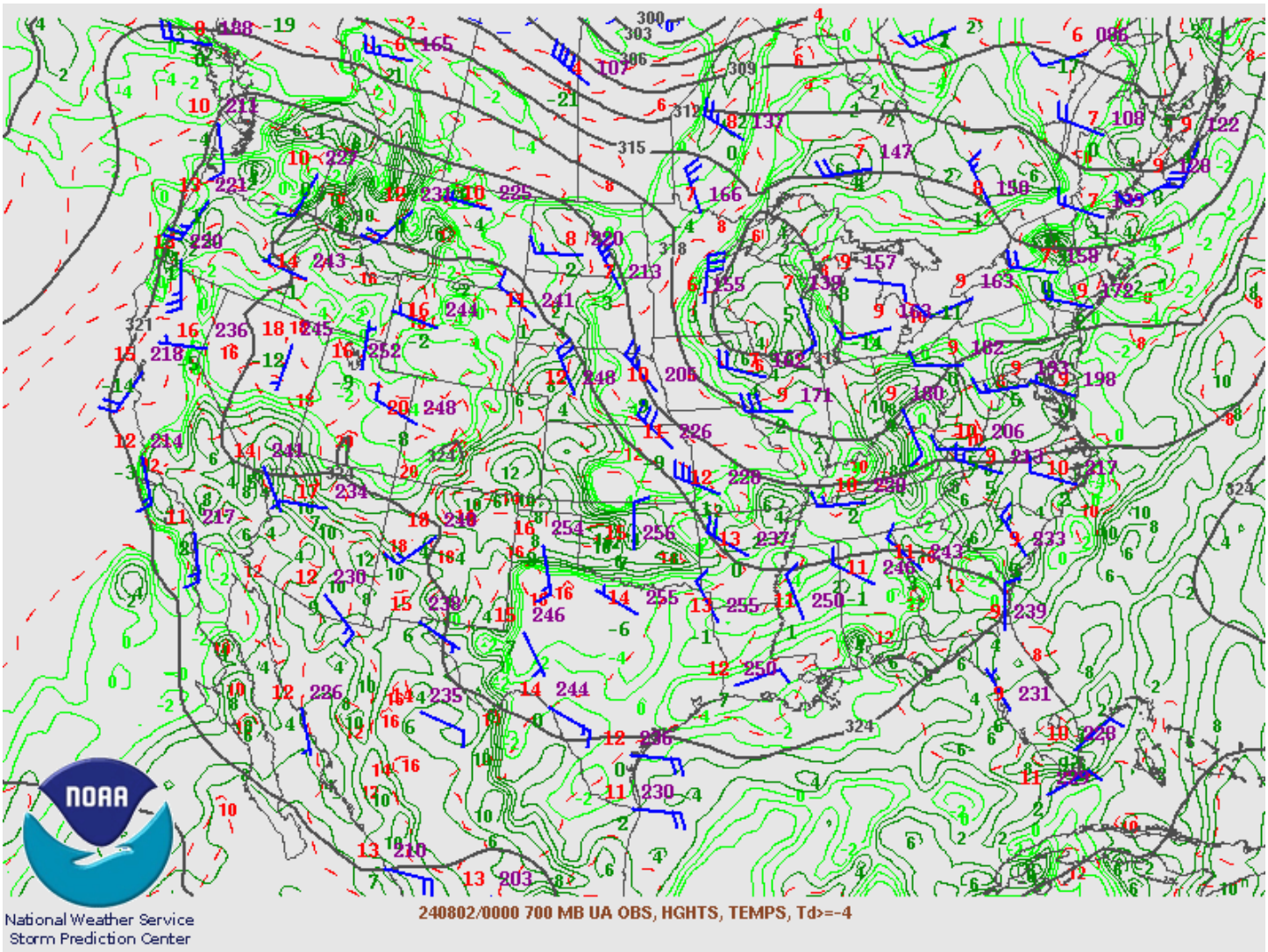
On October 5th, hourly PM2.5 values at the Hernando monitor were significantly elevated, especially during the morning hours with PM2.5 values in the forties for several hours until the noon hour or so when minimal mixing kicked in, lowering the values into the thirties and eventually the twenties. As a direct result of this prolonged smoke exposure, the Hernando monitor recorded a 24-hour daily average PM2.5 concentration of 38.9 µg/m^3.

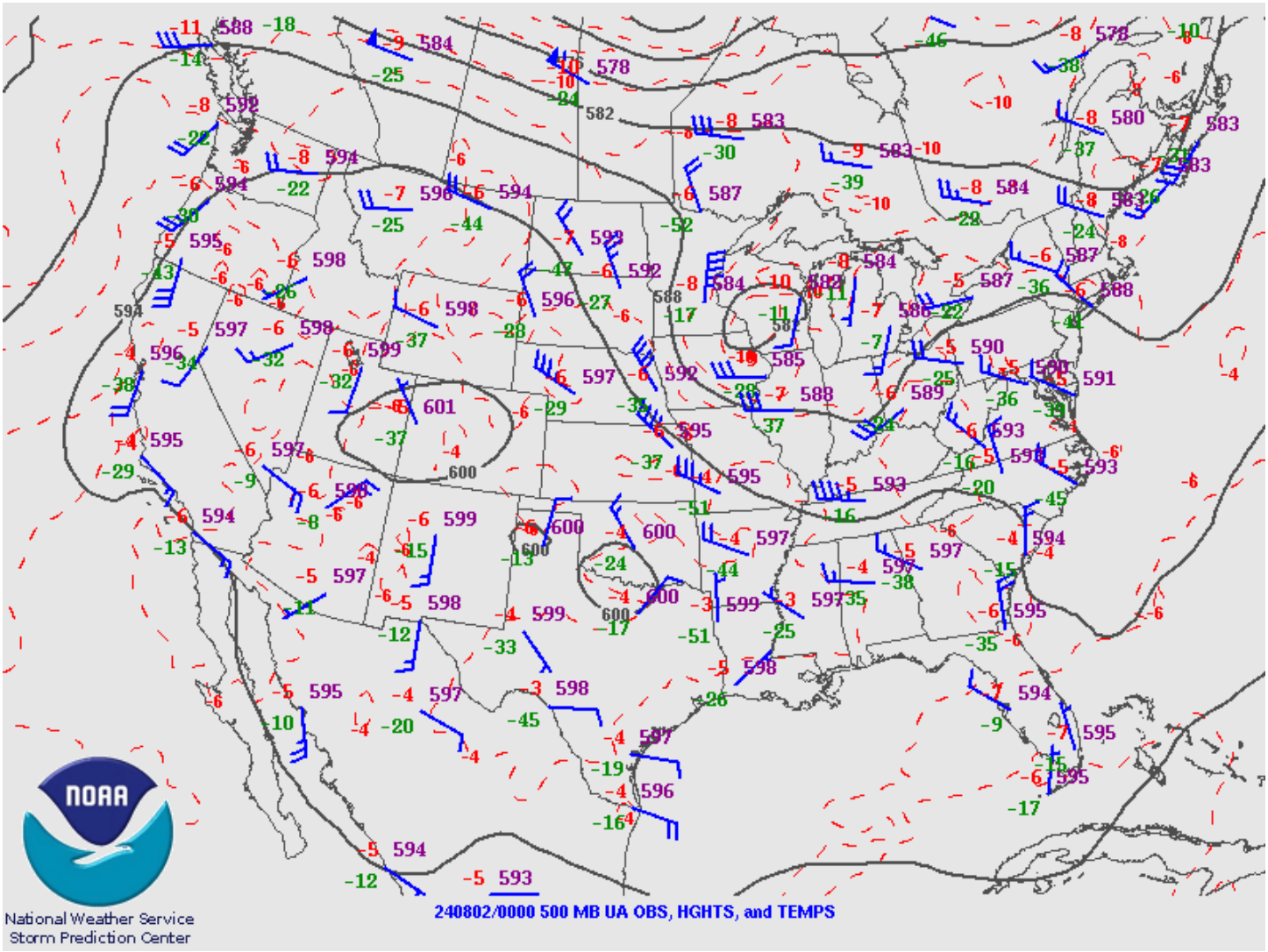


The hourly time series cross-section in the figure above for October 5th illustrates PM2.5 levels over the past seven years, highlighting significantly higher values in 2023 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations as smoke-laden air from Canadian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

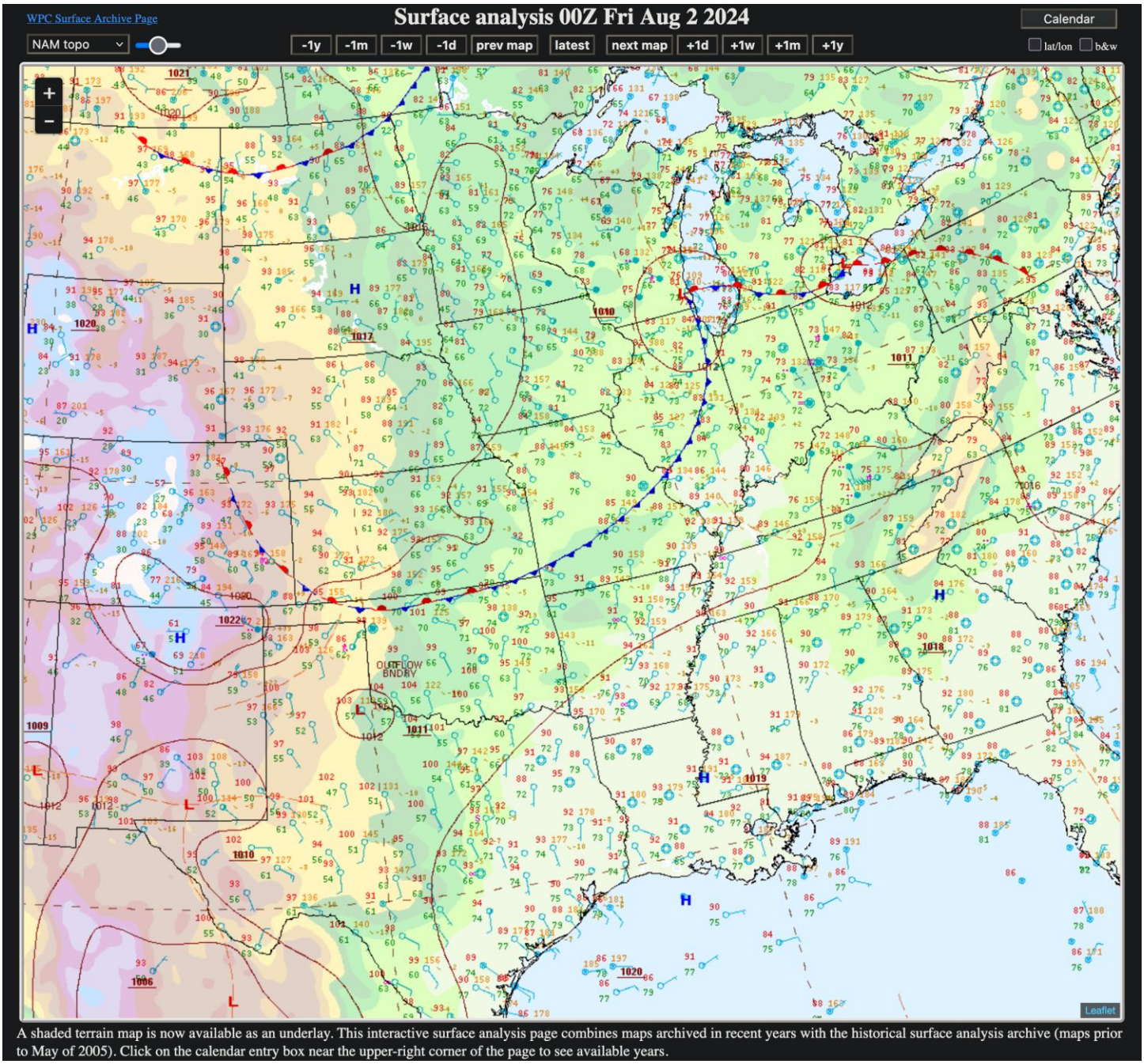
Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other[2])	AQS Flag	Site AQS ID	Site Name	Exceedance Concentration (units are in ug/m^3)	Tier(s)	Notes (e.g. event name, links to other events)
August 1 -2, 2024	Canadian Wildfire	RF	28-033-0002	Hernando	37 & 24	1 & 2	Canadian Wildfire C Exceptional Event Demonstration: August 1-2, 2024

Synopsis: During late July through early August 2024, northeastern Manitoba experienced significant wildfire activity that directly contributed to smoke transport into the United States. The primary fire of concern was detected on July 19th, 2024, and by July 31st, had rapidly expanded from approximately 15,000 acres to 74,000 acres by August 2nd, 2024. Synoptically, there was an Upper-Level Low located over the Great Lakes region and an expansive 600dm ridge sitting over the Four Corners region in the western United States. This synoptic pattern would provide a pathway for smoke transport deep into the central sections of the United States.

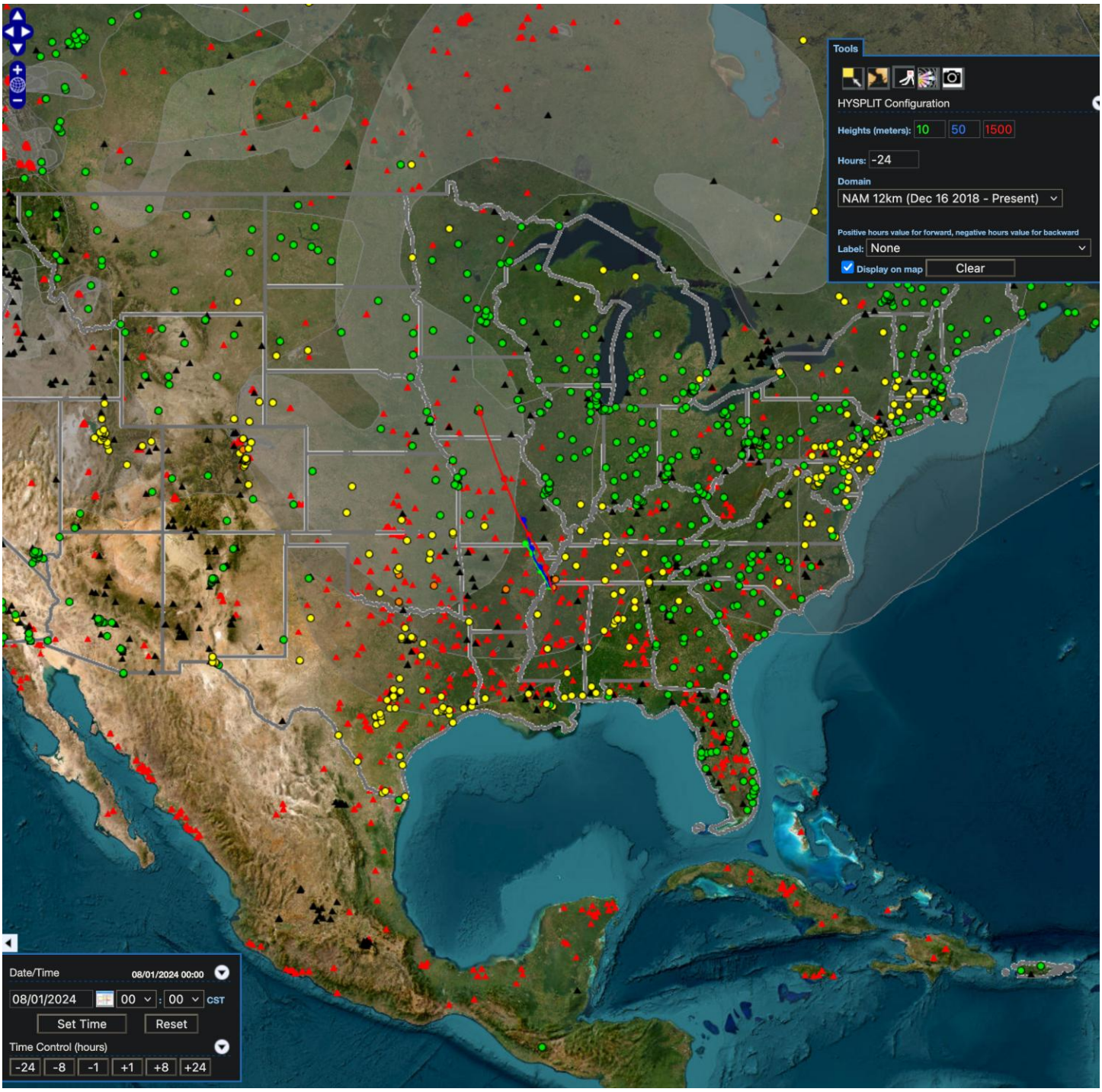




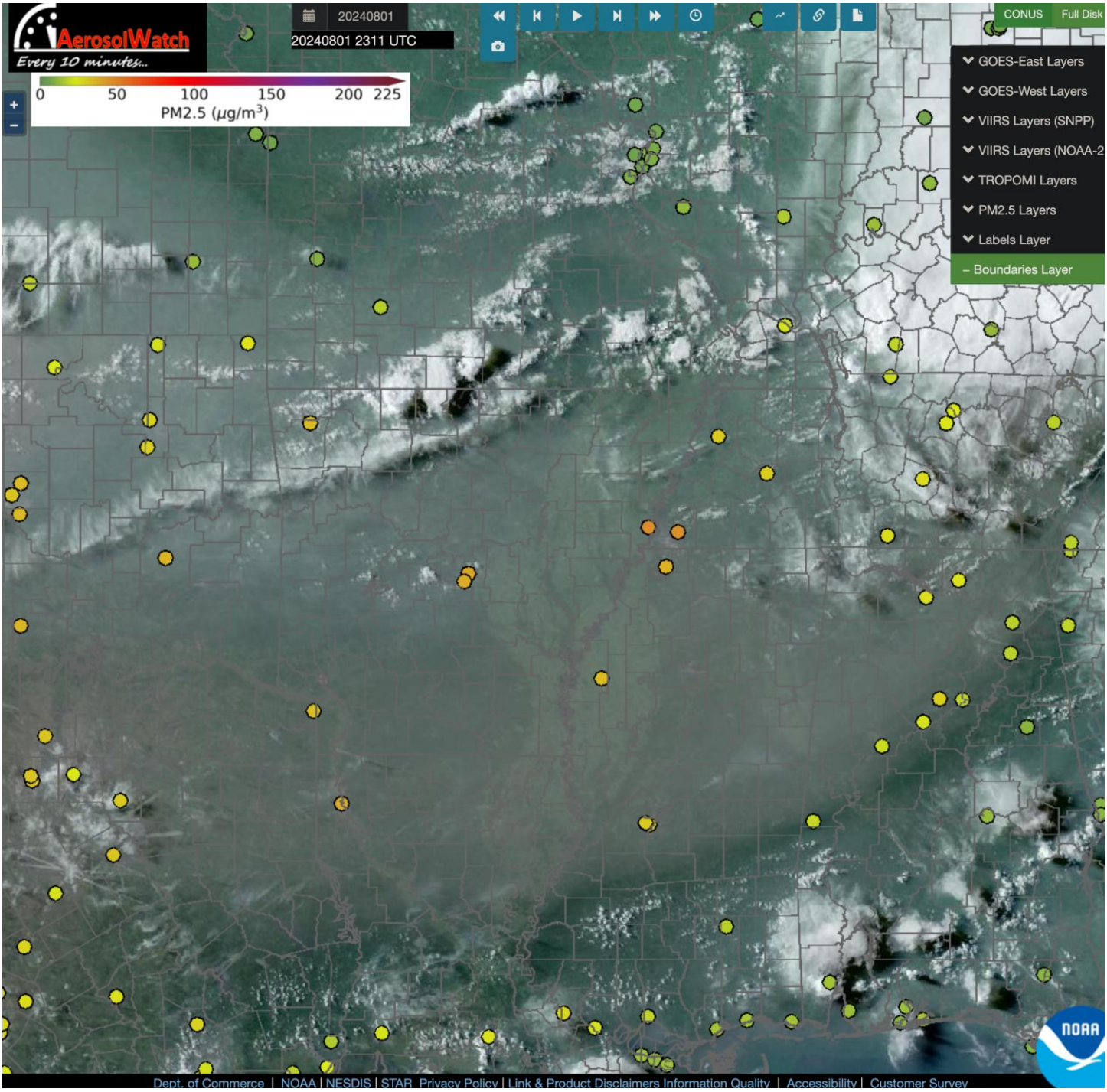
Upper-level charts from August 2nd at 00Z (August 1st, 7PM CDT) both at 700mb and 500mb show aforementioned Upper-Level Low sitting over Great Lakes region with expansive ridge across the four corners region, providing a pathway for smoke from the Canadian wildfires to transport deep into the midsection of the United States.



The 00z surface analysis Friday, August 2nd (Thursday, August 1st, 2024, at 7PM CDT) shows High-Pressure dominating the Midsouth, helping enable stable/stagnant conditions, while Upper-Level troughing over the central United States would aid in the southward transport of smoke from Canadian wildfires, which was concentrated ahead and behind a surface frontal boundary moving through the Midwest. As this smoke was advected into the Midsouth from the north, it resulted in elevated PM2.5 values at the Hernando monitor.



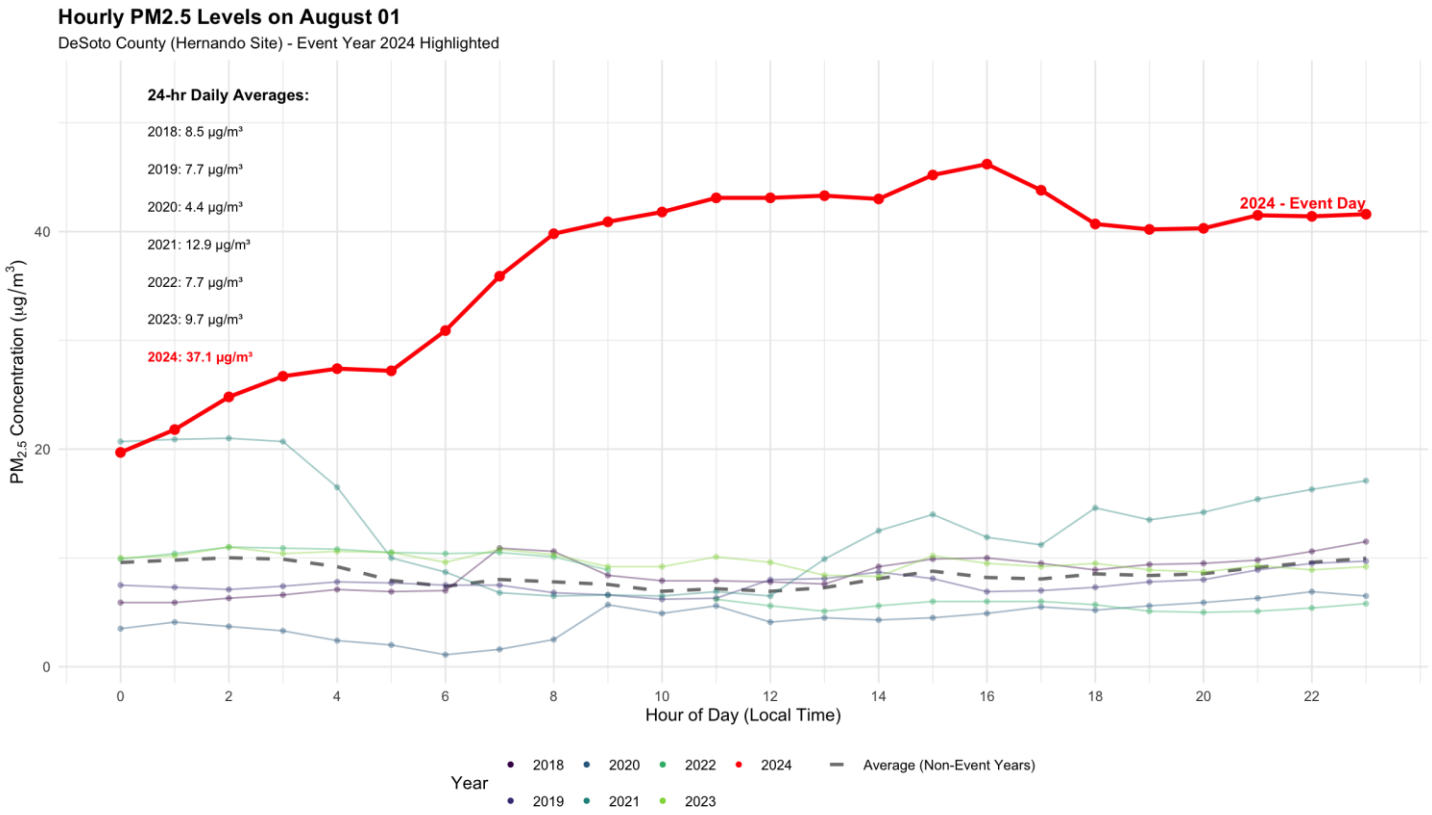
The AirNowTech Navigator image from August 1st, 2024, shows smoke from Canadian wildfires transporting south, deep into the midsection of the United States, just ahead and behind aforementioned surface frontal boundary that was making its way through the area. Overlaid are 24-hour back trajectories showing source of air-mass moving towards the Hernando monitor, originating to the north where higher concentration of smoke exist. Smoke that impacted the Hernando monitor on this day was fairly dense, resulting in a 24-hour daily average at the Hernando monitor to be 37.1ug/m^3.



GOES East True Color imagery from August 1st, 2024, at 2311 UTC (6:11PM CDT) shows dense smoke shield from the Canadian wildfires encompassing the whole Midsouth, elevating PM2.5 values.

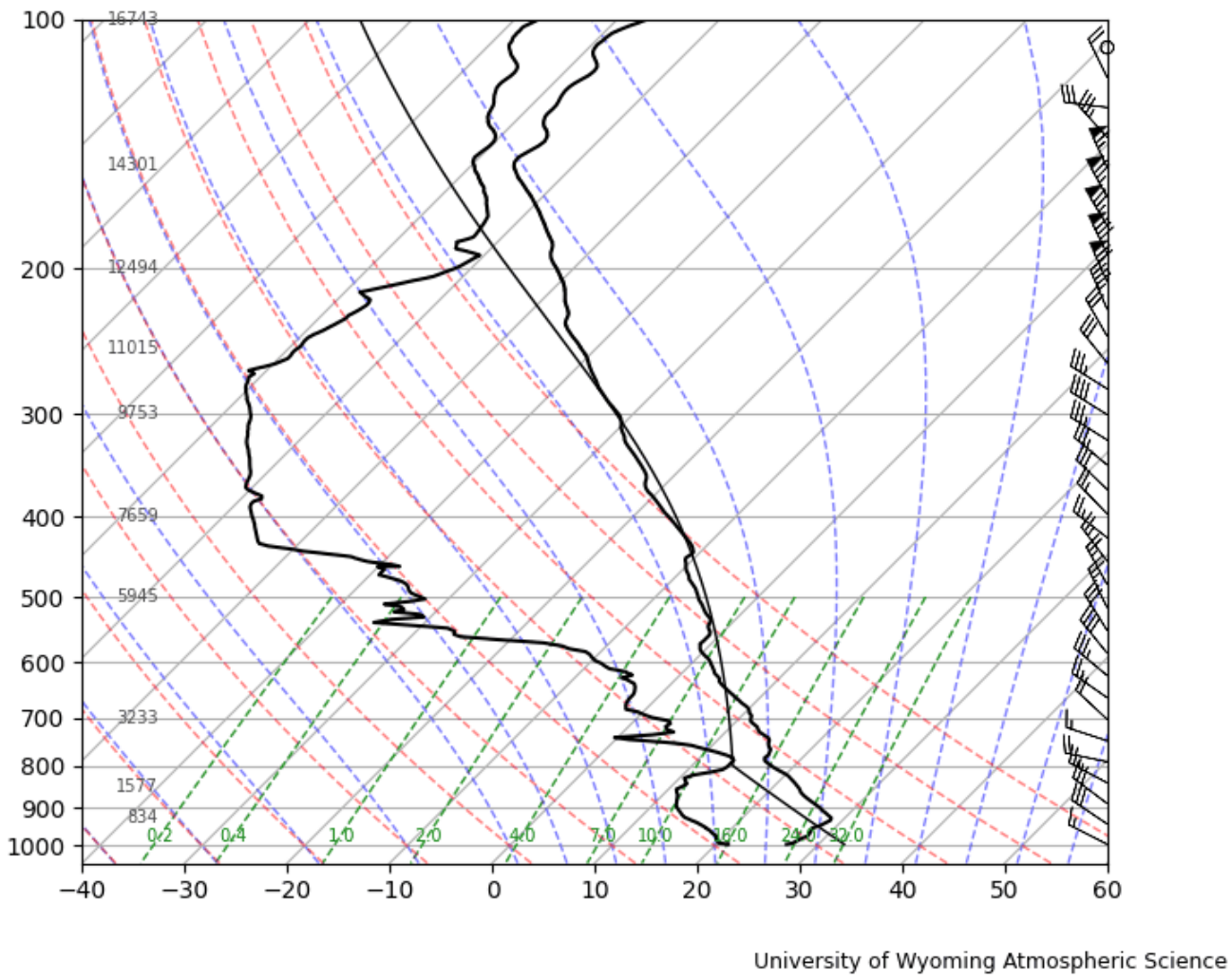
Site/Site AQS/Param/POC	Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Avg	Max
HERNANDO/280330002/PM2.5-88101/3	08/01/24	19.7	21.8	24.8	26.7	27.4	27.2	30.9	35.9	39.8	40.9	41.8	43.1	43.1	43.3	43	45.2	46.2	43.8	40.7	40.2	40.3	41.5	41.4	41.6	37.1	46.2

On August 1st, hourly PM2.5 values at the Hernando monitor were significantly elevated especially for the duration of the day thanks to smoke from the Canadian wildfires being transported in from the north, resulting in a PM2.5 daily average at the Hernando monitor being 37.1ug/m^3.

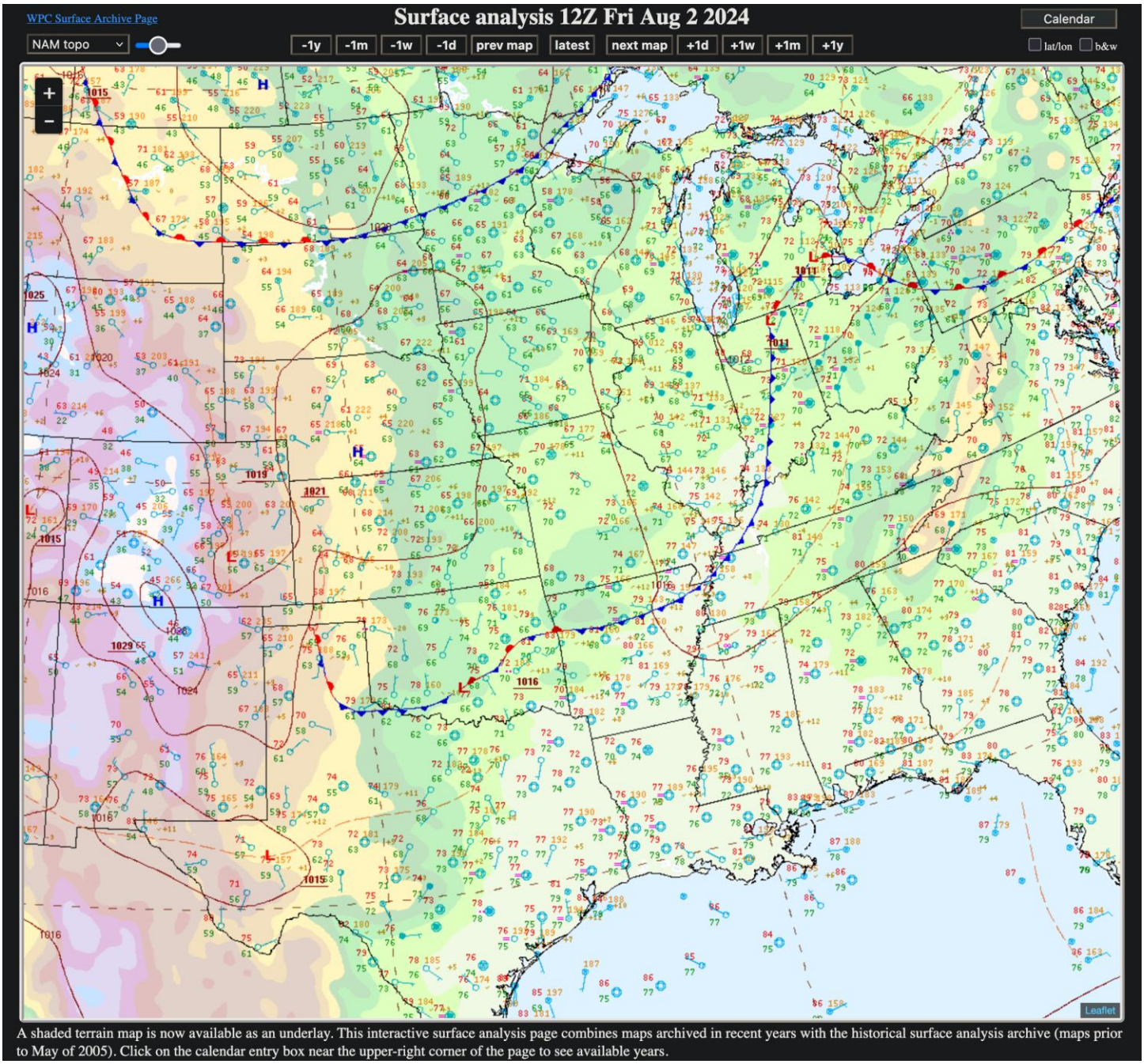


The hourly time series cross-section in the figure above for August 1st illustrates PM2.5 levels over the past seven years, highlighting significantly higher values in 2024 compared to the average of non-exceptional years. The hourly plot shows elevated PM2.5 concentrations as smoke-laden air from Canadian wildfires impacted the Hernando monitor.

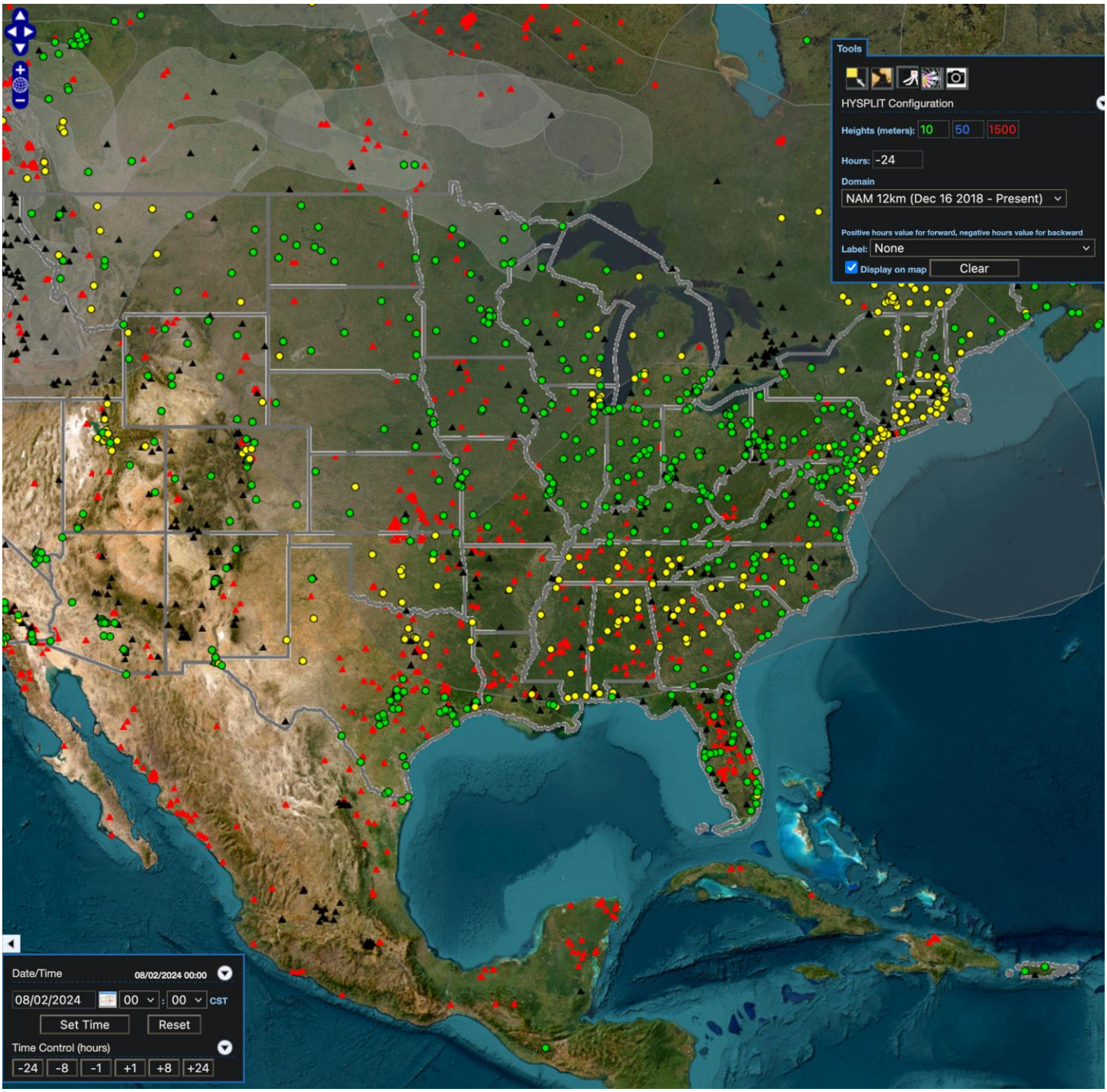
August 2nd: Smoke from Canadian wildfires continued to elevate PM2.5 values at the Hernando monitor especially overnight and during the early morning hours on August 2nd as a low-level nocturnal inversion established over the area, trapping smoke close to the surface. During the day cold front moved through helping lower PM2.5 values during the afternoon hours.



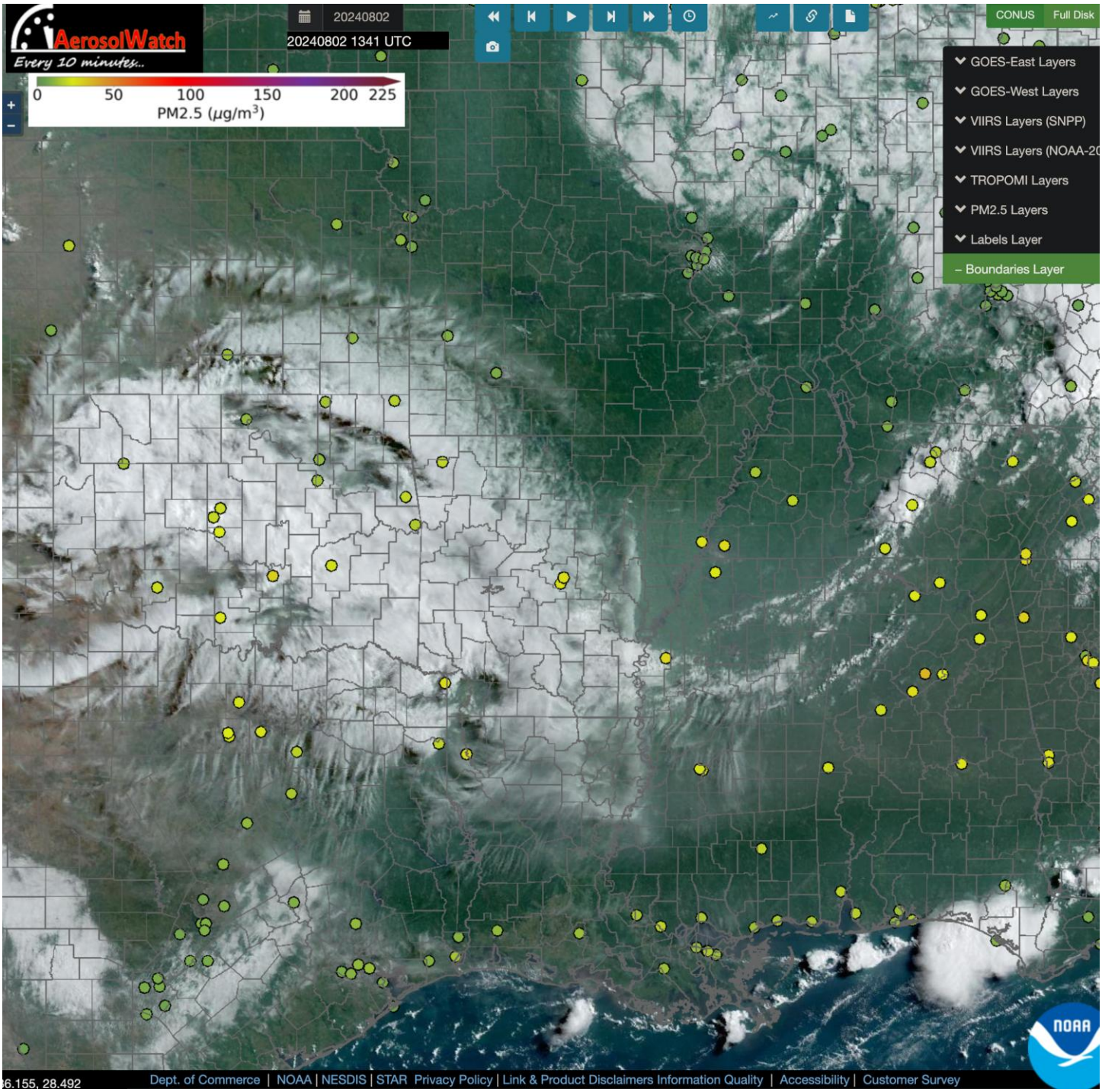
12Z Skew T from Little Rock Arkansas on the morning of August 12th, 2024, show shallow nocturnal inversion that had established overnight, trapping Canadian wildfire smoke near the surface, elevating PM2.5 values at the Hernando monitor.



The 12Z surface analysis Friday, August 2nd, shows stable/stagnant conditions over the Memphis MSA, ahead of frontal boundary, helping create stable/stagnant conditions leading to overnight nocturnal inversion development, helping trap previous days smoke, elevating PM2.5 values at the Hernando monitor.



The AirNow-Tech Navigator image for August 2nd, 2024, shows a lingering plume of residual smoke from Canadian wildfires covering the Midsouth and southeastern United States. This smoke, transported into the region over previous days, was effectively trapped by a High-Pressure system situated ahead of the aforementioned advancing frontal boundary. The stability and light winds associated with this High-Pressure limited atmospheric ventilation and dispersion, causing PM2.5 concentrations to remain elevated, with values reaching well into the moderate category.

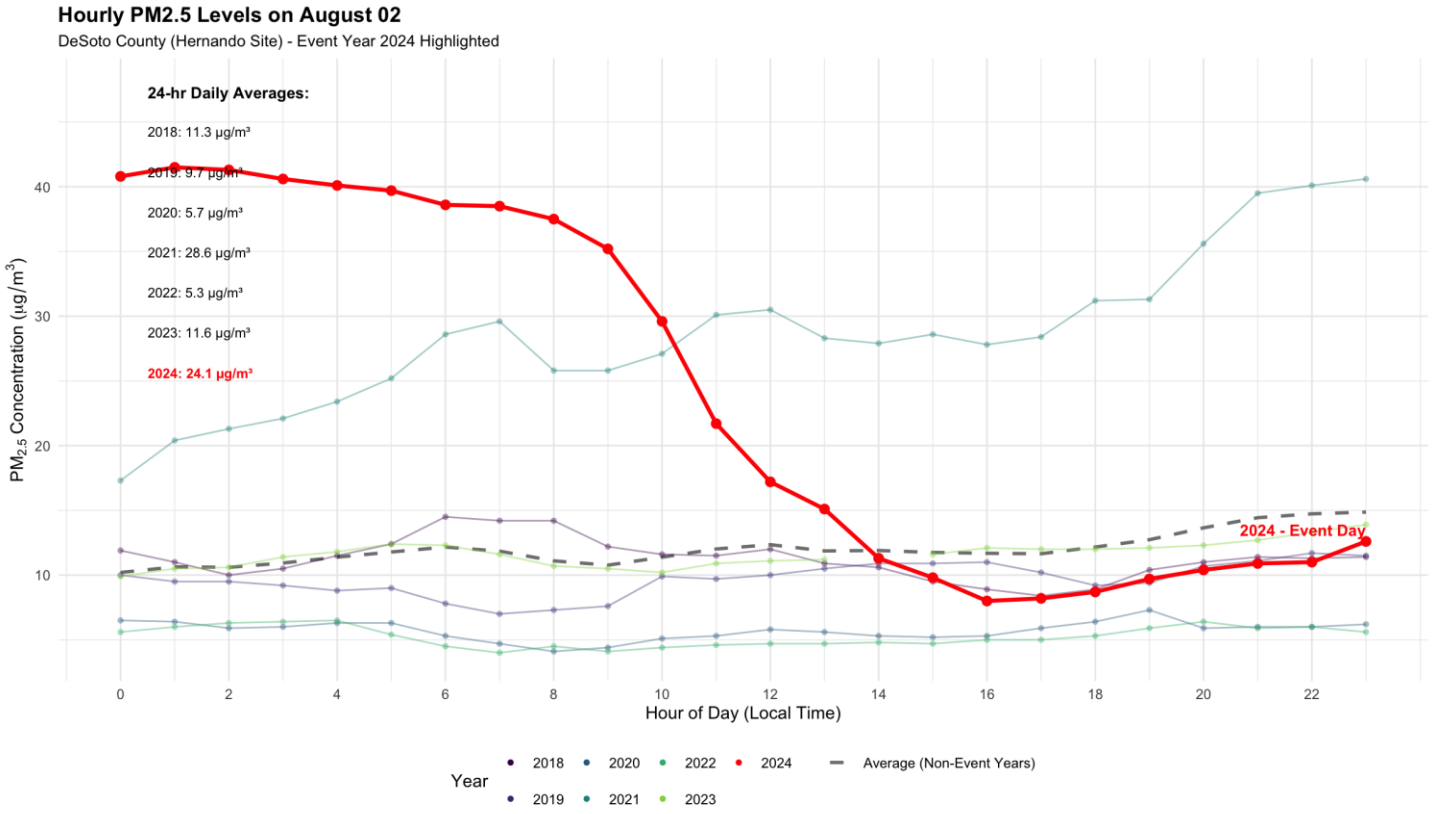


GOES East True Color imagery from August 2nd, 2024, at 1341 UTC (8:41AM CDT) shows dense smoke shield from the Canadian wildfires over the Memphis MSA, elevating PM2.5 values.

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
HERNANDO/280330002/PM2.5-88101/3	08/02/24	40.8	41.5	41.3	40.6	40.1	39.7	38.6	38.5	37.5	35.2	29.6	21.7	17.2	15.1	11.3	9.8	8	8.2	8.7	9.7	10.4	10.9	11	12.6	24.08	41.5

On August 2nd, the Hernando monitor recorded exceptionally high PM2.5 concentrations during the first half of the day. Prior to a frontal passage, pre-dawn and morning values were consistently in the 30s and 40s (µg/m^3), peaking at 41.5 µg/m^3 at hour 1. This severe pollution is attributed to a low-level nocturnal inversion trapping a dense plume of Canadian wildfire smoke that was already over the region.

An improvement in air quality occurred mid-day as a cold front passed through, flushing out the smoke and causing PM2.5 concentrations to drop into the single digits by late afternoon. However, it is critical to note that the resulting 24-hour daily average of 24.08 µg/m^3 was almost entirely driven by the pre-frontal Canadian wildfire smoke event during the morning hours.



The hourly time series plot for August 2nd, shown above, demonstrates that the 24-hour PM2.5 daily average was higher than those observed in previous, non-exceptional years. These elevated concentrations are attributed to smoke from Canadian wildfires, that were transported into the region causing high readings at the Hernando monitor.

Appendices

Appendix A: DeSoto County PM2.5 Monitoring Site Information

A.1 DeSoto County PM2.5 Monitoring Site Information

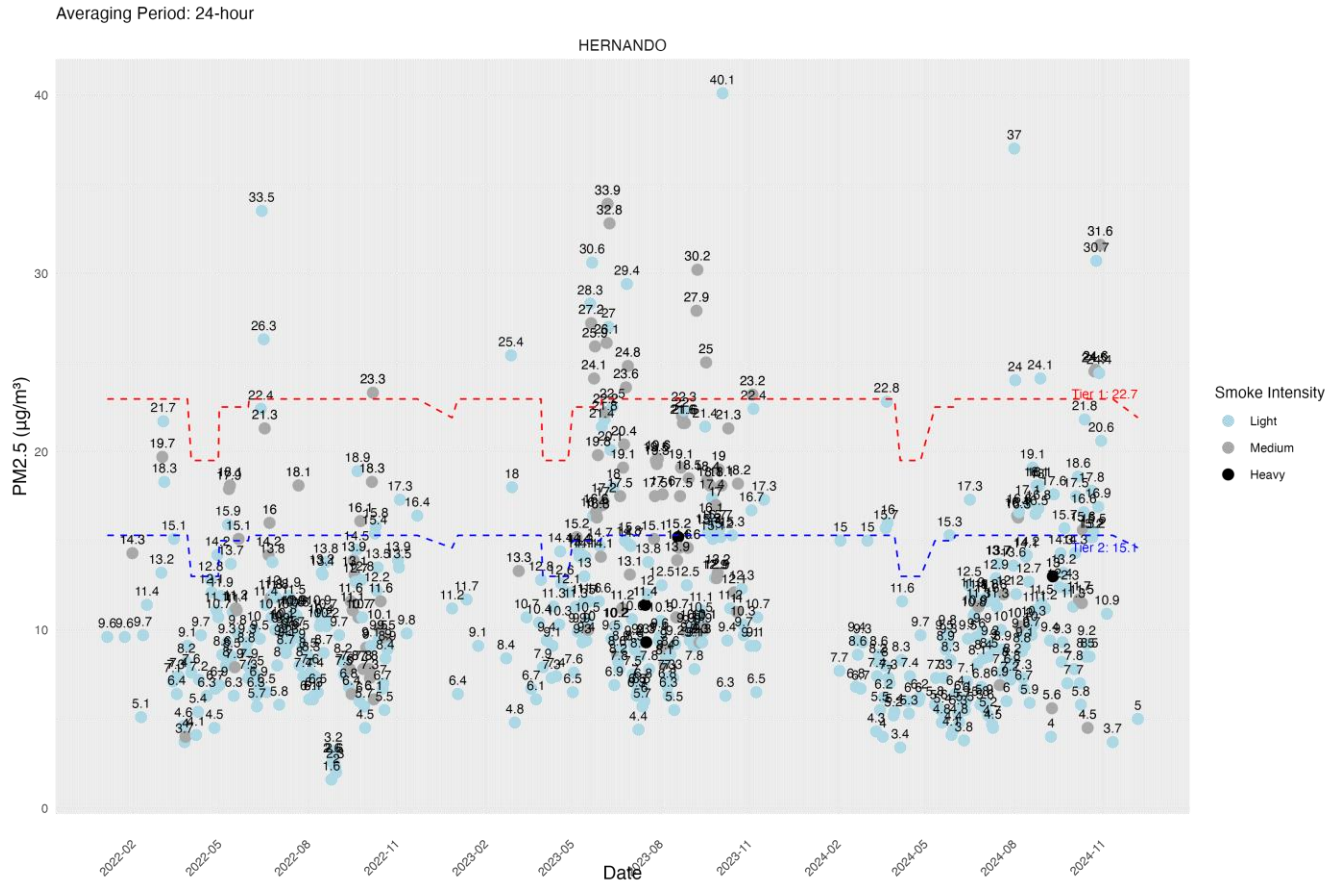
- Site ID: 28-033-0002
- Site Name: Hernando
- Parameter Code: 88101
- Method Code: 636 and 736
- Location: DeSoto County, Mississippi

A.2 Design Value Summary

- Design Value Period: 2022-2024
- Design Value without EE Concurrence: 9.1 µg/m^3
- Anticipated Design Value with EE Concurrence: 9.0 µg/m^3
- Applicable NAAQS: Revised Primary Annual PM2.5 NAAQS (9.0 µg/m^3)

A.3 Tiering Analysis

- Tiering Graph for 2022-2024
- Tier 1 Threshold: 22.95 µg/m^3 (default)
- Tier 2 Threshold: 15.3 µg/m^3 (default)
- May 2023 Event Adjusted Thresholds: Tier 1: 22.5 µg/m^3, Tier 2: 15.0 µg/m^3



Appendix B: Event-Specific Technical Documentation

B.1 2022 Exceptional Events

B.1.1 March 3-4, 2022 - Prescribed Fire Event

- Event Type: Prescribed Fire (AQS Flag: RM)
- Exceedance Concentrations: 19.7, 21.7 μg/m^3
- Tier Classification: Tier 2
- Meteorological Analysis:
    - 12Z Jackson sounding: Strong low-level nocturnal inversion (surface to ~925 mb)
    - Surface conditions: High-pressure system (1023 mb) centered over southeastern U.S.
    - Wind conditions: Light and variable, creating stagnant conditions
- Fire Activity: EPA Emissions Modeling Platform 2022v2 confirmed multiple prescribed burns within 300 km
- Transport Evidence: HYSPLIT 24-hour back trajectories showed minimal air parcel movement at all levels
- Supporting Documentation: Surface analysis maps, soundings, HYSPLIT trajectories, hourly concentration data

B.1.2 June 13-15, 2022 - Saharan Dust Event

- Event Type: Saharan Dust (AQS Flag: RA)
- Exceedance Concentrations: 22.4, 35.5, 29.1 μg/m^3
- Tier Classification: Tier 1 & 2
- Dust Indicators:
    - PM10 values: Louisiana Capitol (75 μg/m^3), Mississippi Jackson NCORE (116 μg/m^3)
    - PM2.5/PM10 ratio: 0.26-0.28 (characteristic of African dust)
- Chemical Evidence: Silicon concentrations peaked at 4.0 μg/m^3 (Mississippi NCORE)
- Transport Pattern: 72-hour HYSPLIT trajectories from Gulf of Mexico
- Supporting Documentation: GOES-East imagery, speciation data, PM10/PM2.5 correlation analysis

B.1.3 June 16-17, 2022 - Wildfire Event

- Event Type: Wildfire (AQS Flag: RT)
- Exceedance Concentrations: 26.3, 21.3 μg/m^3
- Tier Classification: Tier 1 & 2
- Source Identification: Western and southwestern U.S. wildfires
- Upper-Level Pattern: 700mb/500mb flow patterns facilitating eastward transport
- Peak Concentrations: June 16 (26.33 μg/m^3 daily average)
- Supporting Documentation: AirNow-Tech Navigator imagery, upper-air charts, GOES imagery

B.1.4 July 22, 2022 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentration: 18.2 μg/m^3
- Tier Classification: Tier 2
- Source Region: Western and central Canadian provinces
- Transport Mechanism: Upper-level trough guidance
- Morning Enhancement: 29.8-30.8 μg/m^3 during early hours
- Supporting Documentation: Upper-air analysis, surface maps, satellite imagery

B.1.5 September 21, 2022 - Wildfire Event

- Event Type: Wildfire (AQS Flag: RT)
- Exceedance Concentration: 18.9 μg/m^3
- Tier Classification: Tier 2
- Smoke Origin: Upper northwestern United States
- Transport Path: Eastward → northeastern seaboard → anticyclonic rotation into southeast
- Supporting Documentation: AirNow Navigator sequence, GOES verification

B.1.6 October 6-7, 2022 - Prescribed Fire Event

- Event Type: Prescribed Fire (AQS Flag: RM)
- Exceedance Concentrations: 18.37, 23.3 μg/m^3
- Tier Classification: Tier 1 & 2
- Wind Pattern: Persistent northwesterly flow post-frontal
- Fire Sources: Arkansas and west Tennessee (AG and RX fires)
- Peak Values: October 7 (85.1 μg/m^3 hourly maximum)
- Supporting Documentation: Fire inventory maps, meteorological data, BSMP compliance analysis

B.2 2023 Exceptional Events

B.2.1 May 20-28, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: Multiple days ranging 16.1-30.7 μg/m^3
- Tier Classification: Tier 1 & 2
- Duration: Nine consecutive days
- Fire Location: Northwestern Canada
- Peak Day: May 22 (30.69 μg/m^3)
- Supporting Documentation: Extended trajectory analysis, satellite imagery sequence

B.2.2 June 1-10, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: Multiple days ranging 17.1-34.0 μg/m^3
- Tier Classification: Tier 1 & 2
- Source: Quebec wildfires
- Synoptic Pattern: Omega block configuration
- Maximum Impact: June 7 (33.95 μg/m^3)
- Supporting Documentation: Omega pattern analysis, morning inversion documentation

B.2.3 June 12, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentration: 22.56 μg/m^3
- Tier Classification: Tier 2
- Transport Path: Northerly flow via Upper-Level Low
- Supporting Documentation: Upper-air charts, frontal analysis

B.2.4 June 26-28, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: 23.7, 29.4, 24.9 μg/m^3
- Tier Classification: Tier 1 & 2

- Peak: June 27 (29.43 µg/m^3)
- Supporting Documentation: Omega pattern persistence, stagnation analysis

B.2.5 September 7-8, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: 27.9, 30.2 µg/m^3
- Tier Classification: Tier 1
- Maximum: September 8 (30.27 µg/m^3)
- Supporting Documentation: 700mb closed low analysis, nocturnal inversion data

B.2.6 October 3-5, 2023 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: 18.8, 40.17, 38.94 µg/m^3
- Tier Classification: Tier 1 & 2
- Complex Transport: Northeast U.S. → Florida → westward
- Extreme Values: October 4 (40.17 µg/m^3)
- Supporting Documentation: Satellite Smoke Text Products, complex trajectory analysis

B.3 2024 Exceptional Events

B.3.1 August 1-2, 2024 - Canadian Wildfire Event

- Event Type: Canadian Wildfire (AQS Flag: RF)
- Exceedance Concentrations: 37.0, 24.0 µg/m^3
- Tier Classification: Tier 1 & 2
- Fire Details: Manitoba fire (15,000 → 74,000 acres)
- Nocturnal Enhancement: August 2 morning (41.5 µg/m^3 hourly)
- Supporting Documentation: Fire growth data, frontal clearance analysis

Appendix C: Supporting Analyses and Documentation

C.1 Meteorological Analyses

- Surface analysis maps for each event
- Upper-air charts (700mb and 500mb)
- Soundings showing inversion layers
- HYSPLIT trajectory analyses
- Wind rose data for event periods

C.2 Fire and Smoke Documentation

- EPA Emissions Modeling Platform fire inventory data
- Fire location maps with 300 km radius indicators
- Satellite imagery (GOES-East True Color and GeoColor)
- AirNow-Tech Navigator screenshots
- Satellite Smoke Text Products

C.3 Chemical and Physical Evidence

- PM2.5 hourly concentration data
- PM10 correlation analysis (for dust events)
- Speciation data (silicon, aluminum, iron, calcium)
- PM2.5/PM10 ratio calculations
- Seven-year comparative time series plots

C.4 Compliance Documentation

- Basic Smoke Management Practices (BSMP) adherence records
- Mississippi Voluntary Smoke Management Guidelines compliance
- Mixing height and transport wind calculations
- Permit eligibility status documentation

Appendix D: Quality Assurance and Regulatory Information

D.1 Data Quality Documentation

EPA-approved Federal Reference/Equivalent Methods certification

- Site ID: 28-033-0002
- Parameter Code: 88101 (PM2.5 - Local Conditions)
- Method Code: 636 and 736
- All PM2.5 data collected using EPA-approved Federal Reference or Equivalent Methods

Quality assurance procedures (40 CFR Part 58)

- All data collected in accordance with 40 CFR Part 58 requirements
- Quality assured according to 40 CFR Part 58 specifications
- Data meets all applicable monitoring requirements for NAAQS comparisons

MDEQ quality assurance program validation

- All PM2.5 data validated through MDEQ's quality assurance program
- Data undergoes routine quality checks and validation procedures
- Monitoring conducted as part of MDEQ Air Monitoring Network

AQS flagging documentation

- RM Flag: Prescribed Fire events
- RA Flag: Saharan Dust events
- RT Flag: Wildfire events
- RF Flag: Canadian Wildfire events
- All exceptional event data appropriately flagged in AQS system

D.2 Public Process Documentation

Public comment period announcement

- 30-day public comment period provided as required under 40 CFR 50.14
- Demonstration made available for public review

Stakeholder notification records

- Public notification system maintained through multiple channels:
    - Enviroflash daily forecasts for Ozone and PM2.5
    - MDEQ Twitter Page notifications
    - MDEQ Website updates
    - AirNow Mobile App integration

Website posting confirmation

- Air quality forecasts distributed 7 days per week
- Forecast notifications provided by 2:45 PM daily

- Forecasting season March 1st through October 31st.

D.3 AQS Reports

AMP 350 Reports with informational flags

- Referenced in Appendix C of full submission package (AMP 350 report attached at bottom of document)

Complete listing of all flagged data

- March 3-4, 2022: RM flag (19.7, 21.7 µg/m^3)
- June 13-15, 2022: RA flag (22.4, 35.5, 29.1 µg/m^3)
- June 16-17, 2022: RT flag (26.3, 21.3 µg/m^3)
- July 22, 2022: RF flag (18.2 µg/m^3)
- September 21, 2022: RT flag (18.9 µg/m^3)
- October 6-7, 2022: RM flag (18.37, 23.3 µg/m^3)
- May 20-28, 2023: RF flag (multiple values 16.1-30.7 µg/m^3)
- June 1-10, 2023: RF flag (multiple values 17.1-34.0 µg/m^3)
- June 12, 2023: RF flag (22.56 µg/m^3)
- June 26-28, 2023: RF flag (23.7, 29.4, 24.9 µg/m^3)
- September 7-8, 2023: RF flag (27.9, 30.2 µg/m^3)
- October 3-5, 2023: RF flag (18.8, 40.17, 38.94 µg/m^3)
- August 1-2, 2024: RF flag (37.0, 24.0 µg/m^3)

Data completeness statistics

- Design Value Period: 2022-2024
- All required data available for design value calculation

Validation reports

- All data validated through MDEQ quality assurance procedures

Appendix E: References and Additional Resources

E.1 Scientific Literature

Complete bibliography of cited research

- EPA. (2019). Wildland Fire in Ecosystems: Effects of Fire on Air. United States Environmental Protection Agency. EPA-HQ-OAR-2019-0032.
- Formenti, P., et al. (2011). [African dust components research]
- Goudie, S., et al. (2001). [Silicon, aluminum, iron, and calcium as soil components in African dust events]
- Guyette, R. P., Stambaugh, M. C., Dey, D. C., & Muzika, R. M. (2012). Predicting fire frequency in the eastern United States. Ecosystems, 15(2), 322–335.
- Prospero, J. M. (1999). Long-term measurements of the transport of African mineral dust to the southeastern United States: Implications for regional air quality. Journal of Geophysical Research: Atmospheres, 104(D13), 15917–15927.
- Querol, X., et al. (2009). African dust contributions to mean ambient PM10 and PM2.5 levels in the Iberian Peninsula and Balearic Islands (Spain). Atmospheric Environment, 43(28), 4266–4279.
- Querol, X., et al. (2019). Monitoring the impact of desert dust outbreaks for air quality for health studies. Environment International, 130, 104868.
- Rodríguez, S., et al. (2001). Saharan dust contributions to PM10 and TSP levels in Southern and Eastern Spain. Atmospheric Environment, 35(14), 2433–2447.

Links to EPA guidance documents

- EPA Exceptional Events Rule (EER) requirements and guidance
- 2024 PM2.5 Wildland Fire Exceptional Events Tiering Document
- EPA's 2019 Exceptional Events Guidance for Prescribed Fires (Table 2, page 24)
- 40 CFR 50.14 (Exceptional Events Rule)
- 40 CFR Part 58 (Ambient Air Quality Surveillance)
- 40 CFR 51.930(a)(1) (Public notification requirements)

State regulatory references

- Mississippi Prescribed Burning Act (Miss. Code Ann. § 49-19-301, et seq.) (1992)
- Mississippi Voluntary Smoke Management Guidelines (VSMG)
- Mississippi Forestry Commission burn permit requirements

E.2 Additional Resources

Mississippi Forestry Commission guidelines

- Voluntary Smoke Management Guidelines for Forestry Prescribed Burning in Mississippi (2022)
- Daily burn permit eligibility criteria based on:
    - Mixing height parameters
    - Transport wind speed requirements
    - Ventilation index calculations
- Basic Smoke Management Practices (BSMP) requirements

EPA Exceptional Events guidance documents

- EPA's 2019 Prescribed Fire guidance document

- Exceptional Events Rule implementation guidance
- PM2.5 Wildland Fire Exceptional Events Tiering Document (2024)
- Clear causal relationship demonstration requirements

Historical fire return interval studies

- Natural mean fire return interval (MFI) for DeSoto County region: 4-6 years
- Based on Physical Chemistry Fire Frequency Model (PC2FM)
- Historical data from pre-industrial period (1650-1850 CE)
- Spatial resolution: approximately 1.2 km^2 areas

E.3 Contact Information

MDEQ Air Quality Division contacts

- Prepared by: Rodney Cuevas, Mississippi Department of Environmental Quality
- Date: July 2025
- Submitted to: EPA, Region 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: RYD

RAW DATA REPORT

Report Request ID: 2305768 Report Code: AMP350 Jul. 11, 2025

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	28	033	0002								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA	88101	636	
CRITERIA	88101	736	

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	2024 12 31

APPLICABLE STANDARDS

Standard Description
PM25 Annual 2024

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

Jul. 11, 2025

(88101) PM2.5 - Local Conditions

SITE ID: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JANUARY 2022

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

DAY	HOUR 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	20.4	11.3	10.3	8.6	8.1	7.1	6.4	6.1	5.7	5.8	6.0	3.9	1.6	1.3	1.4	1.5	1.5	1.5	1.7	2.4	2.8	3.7	4.6	2.4	24	20.4
2	1.6	1.1	2.0	2.4	2.9	4.2	5.7	6.3	7.6	8.1	5.9	5.0	5.0	6.2	6.1	8.0	7.8	7.6	6.8	8.1	7.9	5.9	4.1	3.3	24	8.1
3	3.3	3.4	3.7	3.7	3.8	3.9	3.9	4.0	4.4	5.0	5.2	5.7	6.0	6.3	6.7	6.8	6.0	5.9	6.8	6.9	7.9	7.9	7.2	7.3	24	7.9
4	6.7	6.5	6.4	6.7	7.4	8.3	8.8	7.8	8.1	7.9	7.7	7.6	7.1	6.7	5.8	5.0	5.5	5.0	5.7	5.5	5.5	5.9	6.3	6.4	24	8.8
5	6.5	6.6	7.8	10.2	12.6	13.6	13.5	12.8	13.2	12.5	9.4	8.1	6.4	5.0	AZ	4.5	11.3	9.2	4.7	4.6	4.3	4.7	4.2	4.6	23	13.6
6	3.8	3.3	3.6	4.2	5.3	5.4	5.8	6.3	6.7	5.4	6.2	5.5	5.8	6.0	6.7	6.7	6.4	6.6	7.6	7.3	6.7	6.6	6.9	7.4	24	7.6
7	8.1	6.5	6.3	6.3	6.9	6.9	6.3	6.3	5.9	5.7	5.8	6.0	5.8	5.0	5.4	5.4	5.7	5.4	5.1	4.8	4.3	3.8	3.8	4.1	24	8.1
8	5.1	5.6	5.9	5.7	5.9	5.9	5.8	5.8	5.8	5.9	5.5	5.6	5.4	5.4	6.1	6.7	7.1	7.1	6.2	6.4	6.7	6.7	7.4	7.2	24	7.4
9	7.7	8.6	9.5	9.5	9.3	9.8	11.1	10.4	9.1	5.5	1.1	.8	1.1	5.1	9.1	6.9	6.0	5.9	5.9	4.6	3.3	3.3	3.3	3.2	24	11.1
10	3.3	3.2	3.1	3.0	3.0	3.0	3.4	4.6	3.8	4.5	4.0	3.5	3.5	3.3	2.2	1.5	1.4	2.6	5.7	5.4	3.9	3.9	4.8	5.4	24	5.7
11	4.8	7.3	12.5	9.5	6.6	5.6	4.9	5.2	4.4	3.7	3.3	3.4	3.6	3.3	3.0	2.7	2.2	2.4	3.3	3.5	3.7	4.1	4.0	3.7	24	12.5
12	4.2	4.3	3.9	3.7	3.7	3.7	3.9	4.0	5.2	5.0	3.1	3.4	3.6	3.9	4.0	3.7	3.4	3.6	3.9	4.1	4.1	4.0	3.7	4.0	24	5.2
13	4.3	4.6	4.9	5.4	5.5	5.9	6.3	6.8	6.3	5.8	5.0	4.8	4.1	3.4	3.5	3.8	3.9	3.9	4.0	4.6	5.6	6.5	6.9	8.4	24	8.4
14	9.5	7.9	6.3	6.3	6.5	6.8	7.1	8.4	9.3	9.2	7.1	6.0	4.7	3.9	3.8	3.5	4.0	4.9	9.8	7.9	5.6	5.9	6.0	6.2	24	9.8
15	6.5	6.8	6.9	6.2	5.3	4.7	5.6	7.5	7.4	7.4	7.2	5.9	4.5	5.4	7.6	10.1	9.4	6.8	5.7	5.0	4.9	4.1	3.7	6.3	24	10.1
16	4.8	3.3	2.0	2.2	2.5	3.8	4.7	9.2	15.4	16.3	15.7	15.0	14.4	13.5	9.3	7.2	7.6	8.2	7.4	7.5	6.0	5.4	5.6	4.9	24	16.3
17	6.8	7.6	9.1	9.6	9.3	9.3	9.6	9.0	10.1	8.7	7.7	7.0	6.2	5.7	5.2	5.2	5.0	4.5	5.1	5.7	5.5	6.3	6.4	6.2	24	10.1
18	6.2	6.6	6.8	6.7	7.1	6.7	6.3	5.8	5.7	5.4	4.3	3.6	3.3	3.3	3.1	2.7	2.9	3.5	3.1	2.9	3.1	3.3	3.6	4.2	24	7.1
19	4.5	4.5	4.4	4.3	3.7	3.5	3.8	4.1	3.8	AZ	AZ	3.4	3.7	3.4	3.3	3.4	3.5	4.0	10.6	6.5	5.0	5.4	5.7	5.3	22	10.6
20	4.9	4.3	3.8	3.8	3.9	4.6	5.1	5.7	6.2	5.9	5.9	6.3	6.9	7.3	7.0	6.7	6.8	6.9	6.7	6.5	6.3	6.4	6.3	5.9	24	7.3
21	5.9	5.7	5.5	5.4	5.4	5.6	6.0	6.4	7.0	7.3	7.3	6.7	7.1	7.6	7.6	8.0	8.1	8.1	8.7	10.2	11.7	11.9	12.4	13.5	24	13.5
22	13.9	13.0	14.0	13.0	13.5	13.9	14.3	15.3	16.0	13.0	11.2	11.1	11.8	13.0	11.9	9.6	8.9	7.6	13.6	12.2	11.5	9.4	8.0	10.1	24	16.0
23	9.1	8.1	7.6	7.6	7.5	7.2	7.1	7.2	8.3	9.0	9.3	9.4	8.3	9.0	8.3	7.8	6.9	6.5	6.1	7.8	8.1	7.5	7.6	8.1	24	9.4
24	7.9	7.6	7.7	8.1	8.0	8.1	8.1	9.1	8.6	7.6	6.9	6.5	5.4	5.0	5.8	6.1	6.6	7.0	6.9	6.6	5.6	5.9	7.4	7.6	24	9.1
25	7.8	7.5	7.8	8.3	5.2	5.2	6.1	6.7	9.2	8.1	9.9	9.7	10.7	13.8	15.6	14.8	13.6	13.2	14.1	14.4	12.6	11.6	9.9	8.0	24	15.6
26	8.2	8.1	8.7	9.5	9.7	8.6	7.3	7.6	14.7	13.2	15.4	9.7	7.9	8.5	7.2	5.9	6.0	6.1	6.5	7.1	8.1	11.3	11.5	9.7	24	15.4
27	9.6	9.6	8.9	8.1	8.9	8.9	7.0	6.9	8.0	8.2	8.3	9.2	9.8	7.8	7.3	7.6	9.7	12.5	15.4	14.1	11.9	12.5	11.3	10.9	24	15.4
28	11.4	12.5	15.3	15.0	13.1	11.0	9.6	11.5	9.7	6.7	4.5	3.4	4.1	3.2	2.9	3.2	3.0	2.6	2.8	3.4	4.0	7.4	7.2	6.6	24	15.3
29	6.4	5.6	5.5	5.8	5.6	5.8	5.9	5.9	5.8	5.0	4.8	4.1	4.1	3.6	3.7	4.1	4.3	3.9	4.1	3.7	3.8	4.2	4.1	3.9	24	6.4
30	3.7	4.1	4.4	5.4	6.9	8.0	8.8	9.4	9.7	10.3	10.8	10.6	10.1	9.0	7.6	5.7	5.4	7.8	12.8	9.8	13.5	12.8	13.1	11.1	24	13.5
31	10.9	11.0	12.9	13.0	12.5	14.3	17.9	17.6	12.1	9.0	6.8	6.3	7.2	8.7	13.8	20.9	8.6	8.8	13.7	12.6	11.3	14.5	16.9	17.6	24	20.9
NO.:	31	31	31	31	31	31	31	31	31	30	30	31	31	31	30	31	31	31	31	31	31	31	31	31		
MAX:	20.4	13.0	15.3	15.0	13.5	14.3	17.9	17.6	16.0	16.3	15.7	15.0	14.4	13.8	15.6	20.9	13.6	13.2	15.4	14.4	13.5	14.5	16.9	17.6		
AVG:	7.03	6.65	7.02	7.01	6.95	7.07	7.29	7.73	8.17	7.70	7.04	6.36	6.10	6.21	6.37	6.31	6.08	6.12	7.11	6.84	6.62	6.86	6.90	6.89		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 6.85 MONTHLY MAX: 20.9

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UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: FEBRUARY 2022

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

DAY	HOUR 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	19.4	17.7	18.2	19.2	18.7	16.6	14.7	10.7	8.0	5.9	5.4	4.4	4.2	5.1	7.6	6.7	5.6	4.6	6.3	6.1	7.3	6.3	6.5	24	19.4
2	9.0	12.9	12.4	12.8	11.7	13.7	15.6	15.4	9.4	9.7	AZ	AZ	6.8	6.2	6.1	8.7	2.6	3.1	6.6	4.1	3.6	4.7	5.6	6.9	22	15.6
3	6.4	6.5	6.3	4.3	3.3	2.4	1.5	1.3	1.1	1.0	1.7	2.3	2.5	3.4	4.6	4.8	4.0	5.0	4.7	5.0	5.1	4.8	4.9	5.0	24	6.5
4	4.6	4.6	4.8	5.0	5.1	5.9	6.3	6.3	6.7	7.2	7.0	7.5	7.3	7.2	7.2	7.2	7.0	6.8	9.4	13.7	13.5	11.9	13.2	10.9	24	13.7
5	9.9	8.3	7.8	7.5	7.7	9.0	8.1	8.3	7.7	7.5	7.5	7.8	8.1	8.6	9.1	9.0	9.6	11.4	10.9	13.5	13.8	12.0	11.7	12.5	24	13.8
6	12.8	11.3	9.4	9.6	7.7	7.6	7.2	6.7	6.7	6.8	6.4	5.5	4.9	4.6	4.4	4.2	4.1	4.7	5.6	6.3	6.5	7.4	10.6	20.3	24	20.3
7	8.5	8.1	8.7	11.4	11.2	12.2	12.6	12.6	12.1	6.4	8.3	9.6	10.6	11.1	9.9	11.9	12.9	12.7	12.0	12.6	11.3	12.0	10.7	10.6	24	12.9
8	11.0	12.3	14.1	14.6	11.8	10.8	11.7	10.7	8.2	5.6	4.0	2.5	2.6	3.0	3.3	3.5	3.5	3.5	3.3	3.7	3.8	3.5	3.3	2.9	24	14.6
9	2.8	2.8	2.8	3.9	3.9	4.1	4.6	4.8	5.0	5.9	5.4	5.4	4.9	4.4	3.9	3.5	2.9	2.7	3.7	4.3	4.1	4.7	4.4	4.8	24	5.9
10	5.4	5.5	5.7	5.5	5.4	5.6	5.9	5.6	4.7	4.3	4.9	3.5	3.1	2.6	2.6	3.0	3.2	3.5	3.5	5.6	7.3	10.2	11.9	12.8	24	12.8
11	12.9	11.3	9.1	9.1	9.5	8.0	11.0	11.6	11.3	11.1	8.1	7.6	7.4	7.0	6.5	5.7	5.7	5.5	6.3	6.5	6.6	6.5	5.9	5.0	24	12.9
12	3.4	2.7	2.4	2.5	2.8	3.0	3.9	4.9	5.7	6.4	6.1	8.1	9.5	7.6	8.3	7.9	7.0	5.7	5.7	6.5	7.5	8.8	9.0	9.8	24	9.8
13	10.4	9.9	9.6	9.0	9.5	10.5	10.6	10.2	8.1	7.7	6.8	5.7	5.1	5.4	5.1	6.2	4.7	5.2	5.3	5.0	5.0	5.5	5.8	9.8	24	10.6
14	109.7	13.5	7.1	7.6	8.1	9.9	11.0	10.2	10.1	7.2	5.8	5.5	5.0	4.5	4.2	4.1	4.1	4.4	6.3	9.7	7.6	6.5	8.3	8.4	24	109.7
15	10.0	10.3	9.9	9.7	8.7	8.1	7.9	8.6	9.2	8.0	7.0	5.8	7.5	8.3	8.3	9.3	8.4	8.8	11.4	12.1	12.3	11.2	14.8	16.8	24	16.8
16	16.9	18.6	16.6	16.0	16.2	17.7	17.3	16.3	12.7	9.9	AZ	7.7	6.3	5.3	5.1	6.7	7.5	9.1	10.5	8.5	8.2	7.6	7.3	7.2	23	18.6
17	6.9	7.0	7.0	7.5	8.2	8.5	8.6	6.8	4.4	4.8	5.2	6.2	6.6	4.7	2.8	2.5	1.7	2.0	3.2	6.6	7.2	5.6	3.6	3.7	24	8.6
18	5.6	6.3	5.6	4.7	5.3	5.6	6.0	6.2	5.4	5.4	5.9	5.8	5.9	5.9	AZ	5.4	5.2	5.8	6.2	7.2	6.5	7.5	6.6	5.5	23	7.5
19	5.2	4.8	4.4	4.2	4.2	4.1	4.3	4.4	3.7	3.3	4.4	6.3	6.6	6.2	5.7	5.6	5.0	4.9	6.0	6.4	7.3	5.6	5.6	5.8	24	7.3
20	6.1	6.5	5.9	5.1	5.6	5.6	5.4	5.7	5.1	5.0	4.6	3.7	2.8	2.7	3.0	2.8	3.0	3.7	3.9	4.1	4.1	4.3	5.4	9.9	24	9.9
21	13.0	19.3	22.9	18.8	13.3	11.8	9.7	9.4	9.7	8.3	5.0	3.1	1.5	1.2	1.2	1.6	2.0	2.4	3.6	4.6	6.5	9.4	11.3	12.5	24	22.9
22	12.2	12.0	11.5	10.2	9.3	8.1	7.3	7.5	6.9	6.8	5.4	6.4	7.5	7.3	6.6	6.4	7.1	7.2	8.7	8.0	5.9	3.9	4.4	3.7	24	12.2
23	3.9	4.6	5.8	8.4	7.5	7.4	9.5	11.6	13.6	11.8	10.4	12.1	12.7	12.6	13.1	13.0	9.8	7.1	4.6	3.3	2.9	1.7	2.3	2.3	24	13.6
24	2.2	2.0	2.1	1.8	2.6	2.9	2.0	2.1	2.3	2.4	2.8	2.4	2.9	2.8	2.6	3.0	3.5	4.6	4.2	3.6	3.7	1.7	.6	.8	24	4.6
25	1.8	3.3	4.4	4.9	5.5	6.0	5.6	5.0	4.3	5.0	5.4	6.3	6.3	5.7	6.3	6.3	7.1	6.9	8.8	11.0	9.3	9.3	10.7	10.5	24	11.0
26	11.1	12.0	12.6	13.3	13.3	13.1	13.8	13.5	13.3	12.8	13.0	12.2	12.3	12.4	11.3	11.5	11.7	11.4	12.5	12.9	13.5	15.0	16.4	14.9	24	16.4
27	15.0	15.7	13.2	11.6	14.2	14.5	16.1	17.2	17.9	17.4	15.6	14.5	14.6	14.6	13.8	13.0	11.5	10.4	8.7	8.0	8.6	8.9	10.1	11.1	24	17.9
28	10.9	10.9	11.1	10.3	9.8	8.1	9.0	11.4	14.0	6.4	5.4	5.3	5.4	4.6	4.3	4.1	4.1	4.1	6.9	5.5	5.4	4.9	4.6	4.2	24	14.0
29																									0	
30																									0	
31																									0	
NO.:	28	28	28	28	28	28	28	28	28	28	26	27	28	28	27	28	28	28	28	28	28	28	28	28		
MAX:	109.7	19.4	22.9	18.8	19.2	18.7	17.3	17.2	17.9	17.4	15.6	14.5	14.6	14.6	13.8	13.0	12.9	12.7	12.5	13.7	13.8	15.0	16.4	20.3		
AVG:	12.36	9.37	8.96	8.84	8.59	8.68	8.90	8.89	8.21	7.22	6.46	6.45	6.47	6.22	6.09	6.38	5.91	6.01	6.68	7.31	7.26	7.23	7.69	8.40		

MONTHLY OBSERVATIONS: 668 MONTHLY MEAN: 7.70 MONTHLY MAX: 109.7

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MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (736) Teledyne T640 at 5.0 LPM (Correcte
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MARCH 2022

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

DAY	HOUR 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	4.2	4.2	4.2	4.4	4.7	4.9	5.2	5.6	5.4	5.3	5.1	5.3	5.6	5.7	6.2	6.1	5.7	5.4	5.4	5.3	5.1	6.0	5.4	5.0	24	6.2
2	4.9	4.7	5.0	5.0	5.5	5.5	6.1	6.4	6.7	16.7	24.3	23.4	19.5	AZ	13.2	11.9	11.5	9.5	7.8	7.8	19.7	21.4	18.1	18.3	23	24.3
3	19.4IM	17.4IM	14.3IM	12.3IM	11.6IM	11.6IM	11.0IM	11.4IM	11.7IM	11.8IM	15.7IM	23.3IM	27.0IM	24.7IM	19.8IM	20.6IM	18.6IM	18.7IM	18.4IM	17.4IM	23.4IM	26.8IM	24.2IM	24.5IM	24	27.0
4	23.2IM	19.7IM	19.1IM	19.1IM	19.0IM	22.4IM	26.0IM	24.6IM	19.5IM	17.8IM	14.8IM	12.9IM	14.4IM	15.5IM	14.3IM	15.2IM	18.7IM	16.7IM	18.0IM	22.9IM	28.4IM	28.7IM	25.5IM	28.2IM	24	28.7
5	33.9	35.2	37.3	30.9	27.7	22.2	21.6	20.8	17.5	11.9	9.7	8.5	8.1	7.3	7.2	8.1	9.9	11.6	13.5	15.3	14.7	13.5	11.1	10.2	24	37.3
6	8.8	8.2	8.5	8.4	8.1	7.6	7.4	6.7	6.9	7.2	7.0	6.7	6.5	6.7	6.3	6.3	5.7	6.1	8.8	8.6	7.3	11.0	13.8	7.5	24	13.8
7	6.3	6.7	7.2	7.6	3.1	2.4	1.4	1.1	1.7	3.4	2.8	2.5	2.3	2.1	2.0	2.0	2.7	3.0	3.3	3.6	4.4	6.2	4.9	5.0	24	7.6
8	4.8	7.2	6.1	5.3	7.9	8.9	9.9	8.2	8.4	9.1	7.4	6.8	6.1	5.5	4.5	4.8	6.3	6.7	6.9	7.3	8.9	9.7	10.3	8.9	24	10.3
9	7.5	7.3	5.5	8.1	8.1	7.7	9.3	10.9	10.2	9.9	9.4	8.0	7.3	7.0	6.3	6.0	5.5	5.8	6.4	7.6	6.9	6.4	6.6	6.1	24	10.9
10	7.2	7.3	6.7	7.0	7.0	6.9	6.9	6.3	6.3	6.7	7.0	6.0	5.5	5.0	5.0	4.6	4.5	5.0	6.5	7.7	8.2	9.9	9.5	9.5	24	9.9
11	7.5	17.3	8.1	10.0	10.2	10.8	10.8	9.5	9.2	13.8	14.3	16.7	19.5	16.2	14.9	14.9	10.4	7.4	6.1	2.6	2.9	3.7	5.4	7.2	24	19.5
12	6.6	5.6	4.9	3.9	3.3	3.0	2.8	2.8	3.0	2.9	2.9	3.3	3.6	3.2	3.5	3.3	3.3	3.3	3.3	4.1	4.1	4.6	4.0	5.1	24	6.6
13	6.9	7.7	3.4	2.7	2.4	2.4	2.7	2.2	2.0	2.4	2.8	3.3	3.3	2.9	2.5	2.0	2.1	2.1	2.3	2.8	2.8	2.8	3.0	3.6	24	7.7
14	5.4	5.5	5.4	6.4	6.8	7.0	7.0	6.2	5.2	6.0	4.7	3.5	3.3	3.6	4.6	6.8	7.6	6.4	5.0	5.1	7.6	8.3	5.6	6.6	24	8.3
15	9.6	10.8	13.3	14.6	15.6	15.0	14.4	12.5	10.9	10.7	12.6	12.9	14.2	14.6	14.7	15.3	13.4	13.8	14.8	15.8	17.1	15.5	8.5	8.1	24	17.1
16	7.4	7.1	7.3	8.5	8.7	8.0	8.1	10.8	11.1	10.4	8.9	7.2	AZ	5.1	4.8	5.0	5.9	5.9	6.1	6.4	6.7	6.5	6.9	7.3	23	11.1
17	7.1	7.3	7.6	7.9	8.1	7.5	6.0	5.6	5.3	5.0	4.9	5.4	5.4	5.8	5.8	5.7	5.7	5.3	5.1	5.7	5.6	5.8	6.0	6.3	24	8.1
18	6.3	7.6	8.6	6.6	5.3	6.8	7.9	5.0	3.7	3.5	3.7	5.0	7.5	8.4	6.8	6.3	5.6	6.0	4.3	3.6	2.5	2.2	2.1	1.8	24	8.6
19	1.1	1.0	1.1	1.1	1.4	1.9	2.5	3.3	3.7	4.3	3.7	3.7	3.6	3.1	2.8	2.8	2.8	2.8	3.6	18.2	4.6	4.7	4.8	4.5	24	18.2
20	4.1	4.0	3.7	4.1	4.1	3.7	3.6	3.0	3.0	3.3	4.6	5.3	4.5	4.2	4.3	5.4	6.0	8.4	8.9	8.7	14.0	13.8	12.1	14.0	24	14.0
21	12.6	12.8	11.2	10.4	9.3	7.5	7.0	6.2	5.1	4.9	4.6	4.6	4.3	4.2	4.7	5.7	7.4	6.4	8.8	7.9	7.2	7.1	8.2	11.8	24	12.8
22	11.7	9.6	8.5	7.7	9.7	9.6	8.5	9.0	8.6	7.7	6.2	5.4	4.1	3.2	3.3	2.5	2.7	2.7	2.6	2.9	3.2	3.4	3.0	3.2	24	11.7
23	4.0	5.1	4.2	3.9	3.4	3.1	2.8	2.7	2.4	2.3	1.7	1.0	1.1	2.4	2.8	2.1	2.0	1.9	2.0	2.8	3.0	3.8	3.8	3.3	24	5.1
24	3.4	3.3	3.3	3.5	3.7	3.7	4.4	3.2	2.9	3.1	2.8	2.8	2.8	2.9	3.0	3.0	2.8	3.1	4.0	3.3	2.9	2.8	2.9	3.3	24	4.4
25	3.4	3.7	4.0	4.9	5.8	4.9	4.6	4.5	4.4	4.3	3.7	3.6	2.9	2.8	3.0	2.8	3.0	3.3	4.3	3.7	3.3	3.5	3.8	3.5	24	5.8
26	2.7	2.7	2.8	3.4	2.9	2.7	2.6	2.6	2.7	2.4	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.8	4.2	4.7	6.3	4.7	4.8	4.4	24	6.3
27	4.3	4.9	4.6	3.7	3.6	3.3	3.2	3.1	3.0	2.8	2.6	2.8	3.1	3.2	2.9	2.7	2.7	2.9	3.5	3.7	3.4	2.9	3.1	3.4	24	4.9
28	3.3	3.1	3.3	3.3	3.7	3.8	3.6	3.4	3.4	3.4	3.1	3.2	3.6	4.1	6.9	15.1	15.1	5.9	11.0	10.6	12.8	19.0	16.4	9.8	24	19.0
29	6.3	5.9	5.8	5.8	5.6	6.3	7.0	6.8	6.8	7.2	8.4	9.5	8.1	8.1	8.4	8.0	8.5	7.8	8.2	10.4	10.8	11.5	10.9	9.3	24	11.5
30	9.6	9.5	8.8	8.7	8.3	AZ	9.2	9.3	9.0	9.3	9.4	9.2	8.7	9.2	9.8	9.3	3.1	3.5	3.3	3.3	4.0	4.9	5.7	5.7	23	9.8
31	3.9	3.2	2.8	3.2	3.6	4.9	5.4	5.8	5.6	5.0	5.4	5.2	5.0	4.6	4.3	4.2	4.1	4.5	4.4	4.0	3.4	3.3	3.2	3.0	24	5.8
NO.:	31	31	31	31	31	30	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31		
MAX:	33.9	35.2	37.3	30.9	27.7	22.4	26.0	24.6	19.5	17.8	24.3	23.4	27.0	24.7	19.8	20.6	18.7	18.7	18.4	22.9	28.4	28.7	25.5	28.2		
AVG:	7.98	8.25	7.63	7.50	7.36	7.20	7.38	7.08	6.62	6.92	6.97	7.06	7.10	6.44	6.47	6.80	6.64	6.28	6.80	7.54	8.23	8.85	8.18	8.01		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 7.31 MONTHLY MAX: 37.3

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: APRIL 2022

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

DAY	HOUR 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	2.8	3.0	3.0	3.5	3.7	4.0	4.8	5.9	6.4	6.6	7.2	6.3	6.7	7.0	7.5	8.5	8.7	8.9	6.9	6.3	6.4	7.0	7.2	7.4	24	8.9
2	7.3	6.9	6.5	6.8	6.3	6.5	6.8	6.9	7.2	6.2	4.8	4.5	4.4	4.4	3.3	4.1	4.4	4.5	5.8	8.8	7.8	7.6	8.7	8.2	24	8.8
3	8.5	9.8	6.0	5.0	4.6	4.6	4.1	3.8	3.0	2.8	2.9	3.2	2.8	2.7	2.8	2.9	2.9	3.1	3.8	5.1	12.5	8.4	6.7	6.6	24	12.5
4	5.9	5.4	5.1	5.4	5.3	4.8	4.6	5.0	6.2	9.5	10.0	9.2	9.0	8.8	9.1	13.7	11.4	13.6	10.8	9.0	11.5	12.0	11.3	10.5	24	13.7
5	12.0	13.1	13.9	15.1	17.2	16.2	15.4	14.6	12.5	9.3	7.2	6.9	7.9	7.9	8.6	7.5	6.8	7.1	8.3	6.5	7.2	7.0	7.3	7.8	24	17.2
6	8.8	9.3	11.6	15.0	16.1	17.4	12.3	2.8	2.4	2.3	2.0	2.4	2.9	2.8	2.7	2.8	2.7	2.7	2.7	3.2	3.1	3.3	3.4	3.0	24	17.4
7	2.9	2.8	2.9	3.7	5.1	4.3	3.6	3.0	3.2	3.5	3.6	3.7	3.6	3.4	3.3	3.1	3.0	3.2	3.2	3.2	3.4	3.3	3.3	3.2	24	5.1
8	3.2	3.3	3.4	3.4	3.1	2.6	1.6	.9	.8	2.1	1.6	1.2	1.3	1.1	1.6	1.5	2.0	2.4	2.6	2.9	3.6	2.8	2.4	2.4	24	3.6
9	2.1	2.0	2.2	2.4	2.5	2.4	2.0	2.9	5.2	5.6	3.9	3.8	4.0	3.9	3.8	4.0	4.2	4.1	4.6	8.0	7.5	8.3	7.2	9.0	24	9.0
10	6.0	5.1	5.0	5.0	5.4	5.8	6.4	6.3	5.9	6.1	5.7	5.3	5.3	5.5	6.2	7.2	7.8	7.2	6.9	7.7	7.7	7.2	6.9	6.3	24	7.8
11	5.6	5.8	6.5	5.0	4.6	4.6	4.9	5.1	5.4	5.2	4.9	5.4	5.3	7.1	7.0	5.9	6.0	6.1	6.5	7.2	7.3	7.1	7.3	7.6	24	7.6
12	6.8	6.1	6.6	6.7	6.3	6.3	7.0	8.0	9.8	10.8	11.0	11.0	10.5	10.2	9.3	9.8	10.1	10.1	8.2	8.6	8.3	6.3	7.5	9.0	24	11.0
13	8.8	8.3	8.2	6.7	4.0	3.7	3.8	4.1	4.0	4.0	4.2	5.9	7.9	8.6	9.4	10.2	4.3	3.0	2.8	3.3	2.6	2.1	3.1	3.3	24	10.2
14	3.6	3.8	3.9	4.0	4.0	4.3	4.7	AZ	4.6	5.4	3.6	3.4	3.0	3.4	3.1	2.4	2.5	2.7	3.3	3.6	5.3	6.7	4.9	4.8	23	6.7
15	4.4	4.8	4.4	3.7	3.7	3.8	4.2	4.9	4.6	4.5	4.3	4.2	4.8	5.2	5.1	4.9	5.1	5.5	5.8	6.1	5.7	5.7	5.8	5.3	24	6.1
16	3.3	4.3	5.9	6.1	6.6	7.1	7.7	8.0	6.3	6.1	6.3	7.0	7.1	7.6	7.5	7.5	7.8	7.6	8.0	10.2	9.1	8.3	7.7	5.8	24	10.2
17	5.5	5.5	5.8	5.5	4.7	4.4	4.0	3.9	3.8	3.9	4.1	5.2	6.0	6.3	6.3	6.4	6.6	6.6	6.6	6.4	6.0	5.5	4.6	4.1	24	6.6
18	3.6	5.3	6.6	6.3	6.3	7.2	5.5	4.9	4.7	5.7	6.7	5.0	4.6	4.6	5.1	4.1	4.0	3.9	3.8	4.8	5.4	6.5	5.1	4.2	24	7.2
19	3.9	3.3	3.3	3.3	3.3	3.4	3.6	6.7	6.3	4.4	5.0	5.3	5.6	5.4	5.9	5.4	4.2	4.1	4.0	4.5	5.2	6.2	5.0	5.0	24	6.7
20	4.6	4.3	4.3	4.4	4.3	4.5	4.8	5.0	5.0	5.0	5.1	5.3	5.6	5.4	5.7	9.2	6.3	5.9	5.8	6.2	7.8	11.6	12.2	12.9	24	12.9
21	14.3	12.2	10.5	9.1	8.1	7.8	5.6	4.5	5.2	6.6	7.2	7.7	8.1	8.2	8.0	8.3	8.1	8.0	8.6	9.0	9.8	10.1	9.1	9.3	24	14.3
22	9.6	9.6	9.9	9.9	10.1	10.9	12.6	11.2	10.3	9.3	9.8	10.1	10.4	11.4	10.2	10.0	10.7	14.4	15.3	15.4	15.4	14.9	15.3	15.0	24	15.4
23	16.7	16.4	16.8	16.2	16.4	15.9	14.0	11.1	8.4	8.2	8.5	8.7	8.9	8.5	8.3	8.2	7.8	7.7	8.6	8.0	7.9	9.0	10.4	11.2	24	16.8
24	11.4	11.6	11.3	10.0	9.7	9.2	8.7	11.0	8.8	8.6	8.0	8.1	8.1	8.1	8.0	8.2	7.7	8.1	7.4	6.2	6.9	7.1	7.1	10.1	24	11.6
25	13.8	13.6	10.0	5.4	5.2	6.4	6.2	5.0	2.4	1.6	1.6	2.7	3.1	3.1	3.2	2.6	2.5	2.4	2.3	2.8	3.5	4.1	4.3	4.0	24	13.8
26	3.3	3.0	3.3	3.3	3.4	3.5	3.3	3.7	4.8	3.7	3.7	4.1	3.9	3.9	3.7	3.7	3.6	3.6	3.6	3.5	3.7	3.9	4.1	4.1	24	4.8
27	4.0	4.5	4.3	3.9	4.1	4.1	4.4	5.9	3.6	3.7	3.7	4.4	4.6	AZ	6.1	6.2	6.5	6.5	7.2	9.5	9.3	8.6	8.0	7.3	23	9.5
28	7.3	7.6	7.4	8.0	8.1	7.7	8.2	6.0	5.9	6.6	7.6	8.8	9.3	9.8	10.1	10.0	10.4	11.8	12.9	17.9	17.1	13.5	12.2	12.1	24	17.9
29	11.6	11.7	11.4	11.9	11.6	12.3	11.4	10.8	12.3	11.3	10.4	11.5	11.7	11.0	16.5	25.4	12.8	12.3	12.4	12.7	13.5	14.2	15.6	15.9	24	25.4
30	15.2	14.9	14.4	14.1	12.9	10.5	8.9	9.2	9.5	9.6	9.5	8.9	8.4	7.9	7.4	6.9	7.0	7.0	7.5	8.2	9.0	8.9	6.5	5.9	24	15.2
31																									0	
NO.:	30	30	30	30	30	30	30	29	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30		
MAX:	16.7	16.4	16.8	16.2	17.2	17.4	15.4	14.6	12.5	11.3	11.0	11.5	11.7	11.4	16.5	25.4	12.8	14.4	15.3	17.9	17.1	14.9	15.6	15.9		
AVG:	7.23	7.24	7.15	6.96	6.89	6.87	6.50	6.24	5.95	5.94	5.80	5.97	6.16	6.32	6.49	7.02	6.26	6.47	6.54	7.16	7.65	7.57	7.34	7.38		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 6.71 MONTHLY MAX: 25.4

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MAY 2022

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

DAY	HOUR 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	6.3	5.9	6.0	6.4	6.7	6.7	6.7	7.0	5.3	5.9	6.1	5.9	5.5	5.8	5.2	4.5	4.7	4.7	4.7	5.4	6.3	5.6	6.1	6.0	24	7.0
2	6.1	6.4	8.3	9.3	10.8	11.3	16.6	14.9	8.9	6.6	7.2	7.7	9.5	8.6	9.3	9.4	9.6	9.3	9.4	9.4	9.7	10.2	10.5	10.9	24	16.6
3	10.7	9.0	8.2	7.8	6.7	5.3	4.4	6.2	8.1	7.7	8.7	10.9	12.7	12.6	12.3	12.9	15.6	18.9	19.0	18.7	17.0	14.0	10.6	6.0	24	19.0
4	4.1	3.3	3.0	3.4	4.3	4.2	4.2	5.5	4.6	5.2	6.7	8.9	11.1	10.6	9.8	9.4	10.7	11.0	10.5	11.1	12.8	10.3	8.8	9.2	24	12.8
5	9.6	9.4	8.8	9.3	10.0	10.9	11.1	12.3	10.9	9.4	9.1	10.2	9.8	12.4	9.3	4.4	5.2	4.6	4.6	4.2	4.0	3.3	3.5	3.7	24	12.4
6	3.6	3.6	3.7	4.3	4.5	5.0	5.6	4.7	3.0	2.8	2.6	2.7	2.9	3.0	AZ	3.2	3.0	2.8	3.4	3.4	4.3	2.9	2.8	3.2	23	5.6
7	3.1	3.2	3.3	3.7	3.7	3.9	4.0	3.7	3.7	4.3	4.3	3.3	2.6	2.2	2.7	4.0	6.6	7.0	8.2	10.4	11.1	12.2	12.7	11.1	24	12.7
8	9.4	8.7	9.0	8.9	9.3	10.7	8.2	7.2	5.2	5.1	4.8	5.5	5.2	5.4	5.5	5.0	5.6	5.7	5.7	6.1	6.8	7.0	5.9	5.9	24	10.7
9	6.0	6.1	6.3	6.0	6.2	6.3	6.3	7.0	6.8	7.1	8.4	8.4	9.6	10.8	11.8	11.9	AV	AV	AV	AV	AV	10.6	10.3	10.8	19	11.9
10	11.3	11.3	11.5	12.1	11.9	12.3	12.8	13.6	14.2	14.6	14.6	14.4	14.8	14.8	13.9	13.6	14.6	17.1	18.5	19.0	20.7	20.1	19.5	18.9	24	20.7
11	19.2IT	19.3IT	19.3IT	18.3IT	18.1IT	17.4IT	18.0IT	15.9IT	AZ	15.7IT	15.3IT	15.6IT	15.8IT	15.7IT	16.0IT	16.5IT	16.5IT	16.1IT	16.1IT	16.2IT	16.3IT	17.0IT	16.9IT	17.1IT	23	19.3
12	18.1IT	17.9IT	17.1IT	17.6IT	18.7IT	18.6IT	17.8IT	17.6IT	16.3IT	16.0IT	16.3IT	16.3IT	17.0IT	16.8IT	16.8IT	17.1IT	16.8IT	16.1IT	16.4IT	16.9IT	17.9IT	18.0IT	18.1IT	17.6IT	24	18.7
13	17.3	16.1	17.1	17.8	18.6	18.8	18.5	12.5	12.1	13.9	15.1	14.7	13.3	13.5	9.3	7.2	7.7	8.1	8.0	7.6	7.9	8.6	8.5	8.1	24	18.8
14	8.6	8.4	8.5	8.2	7.9	7.2	6.2	6.0	6.3	5.7	5.4	5.6	5.5	5.7	5.8	6.4	7.6	7.0	8.1	9.1	8.9	10.1	9.6	10.0	24	10.1
15	10.0	10.1	9.7	10.1	10.2	10.3	10.3	10.5	9.9	10.3	10.7	12.4	13.2	12.4	12.0	12.2	12.4	10.3	6.5	6.1	6.9	6.9	7.1	7.1	24	13.2
16	6.5	5.9	5.0	4.7	5.0	6.0	8.0	6.8	5.3	4.3	4.1	4.0	4.5	4.7	4.6	4.5	4.2	4.3	4.4	5.5	5.0	5.4	6.6	6.8	24	8.0
17	7.2	9.2	7.3	6.8	6.0	7.0	7.6	5.6	5.0	4.5	4.6	4.6	5.0	4.8	4.9	4.9	5.1	5.3	6.1	7.1	8.2	10.6	10.2	14.8	24	14.8
18	10.0	8.3	8.0	8.1	7.7	7.8	8.8	9.7	9.6	9.8	10.0	10.6	11.0	10.8	10.5	9.7	9.8	11.2	11.7	11.2	12.0	13.0	12.2	11.4	24	13.0
19	10.4	11.8	9.9	9.7	9.7	10.6	10.7	11.6	11.4	11.1	11.1	10.2	9.5	8.6	8.6	8.7	8.5	8.8	10.5	8.7	9.1	9.1	11.5	15.2	24	15.2
20	13.6	11.7	9.7	9.0	8.5	8.3	8.4	8.3	8.2	9.1	7.1	7.2	7.0	7.6	8.1	8.0	8.0	8.0	8.4	8.6	8.5	9.6	11.4	12.8	24	13.6
21	14.9	16.1	17.7	18.7	18.8	17.5	15.8	13.2	12.6	11.6	11.3	11.1	10.9	11.9	13.6	13.2	14.4	15.5	16.0	16.1	10.8	AV	10.8	AV	22	18.8
22	3.7	5.0	6.0	6.6	6.8	6.5	5.8	6.1	6.3	4.5	9.2	4.7	6.7	9.0	5.7	4.2	4.9	8.2	10.3	7.8	7.4	8.3	8.6	8.9	24	10.3
23	9.3	8.6	6.2	4.8	4.4	4.3	4.3	4.6	4.8	5.2	5.6	5.9	6.9	7.5	7.7	8.1	8.6	8.4	7.6	8.6	8.7	8.4	8.7	9.5	24	9.5
24	10.8	11.1	11.1	9.9	9.4	9.5	9.8	9.6	10.0	9.4	9.8	9.1	10.3	10.8	10.8	8.4	9.2	7.3	8.5	6.3	4.7	5.6	7.6	9.2	24	11.1
25	8.4	6.7	6.7	6.3	6.5	6.7	6.8	6.9	AZ	5.1	4.4	5.1	4.8	3.4	3.4	3.8	3.5	3.5	4.4	5.1	5.7	6.6	7.4	7.1	23	8.4
26	6.5	6.3	5.1	4.8	4.2	3.7	3.8	3.7	3.6	4.2	3.9	3.4	3.0	3.0	2.8	3.2	3.3	2.8	2.5	2.5	2.9	3.2	3.4	3.3	24	6.5
27	3.3	3.6	3.6	3.7	3.6	3.5	3.5	3.6	3.9	4.0	4.1	4.6	4.4	4.5	3.9	4.1	3.9	4.1	4.3	4.6	5.4	7.2	7.8	8.2	24	8.2
28	8.6	9.0	9.7	9.8	9.4	9.6	6.3	5.3	4.7	4.4	4.5	4.2	4.5	4.4	4.5	4.4	4.2	3.7	4.2	5.9	8.5	8.2	6.3	6.3	24	9.8
29	6.4	6.6	6.6	6.6	6.6	7.1	7.7	7.5	7.2	7.3	7.1	7.7	7.6	7.9	8.2	8.2	8.1	7.9	8.0	9.4	9.6	8.9	9.4	9.6	24	9.6
30	10.1	9.9	9.9	9.2	9.4	10.0	9.3	8.4	7.9	7.6	8.6	8.1	7.4	7.5	7.1	6.9	6.7	6.8	7.0	7.7	7.9	8.3	9.3	8.9	24	10.1
31	8.8	8.2	8.2	7.4	7.7	7.2	6.2	5.6	5.4	5.9	6.0	6.3	5.9	5.6	5.4	5.5	5.5	5.4	5.5	5.8	5.9	7.1	7.1	6.7	24	8.8
NO.:	31	31	31	31	31	31	31	31	29	31	31	31	31	31	30	31	30	30	30	30	30	30	31	30		
MAX:	19.2	19.3	19.3	18.7	18.8	18.8	18.5	17.6	16.3	16.0	16.3	16.3	17.0	16.8	16.8	17.1	16.8	18.9	19.0	19.0	20.7	20.1	19.5	18.9		
AVG:	9.09	8.93	8.73	8.69	8.75	8.85	8.82	8.42	7.63	7.69	7.96	8.04	8.32	8.46	8.32	7.85	8.15	8.33	8.62	8.82	9.03	9.21	9.33	9.48		

MONTHLY OBSERVATIONS: 734 MONTHLY MEAN: 8.56 MONTHLY MAX: 20.7

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JUNE 2022

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

DAY	HOUR 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	6.9	7.0	7.9	8.3	9.6	9.1	7.2	7.0	7.6	8.3	8.5	8.2	7.8	7.4	7.2	6.9	7.4	6.7	7.3	5.1	3.8	4.0	4.8	5.7	24	9.6
2	6.3	6.2	6.1	6.0	6.2	6.2	5.6	6.1	6.2	6.4	5.7	5.9	5.4	5.7	3.8	4.1	4.3	4.2	5.0	5.3	5.1	5.9	7.1	7.6	24	7.6
3	6.8	6.9	6.6	6.0	6.2	5.8	5.5	4.8	4.7	4.5	5.0	4.7	4.5	4.2	4.8	4.6	5.2	4.9	4.9	6.5	7.7	7.1	6.6	7.0	24	7.7
4	5.9	5.9	6.3	5.8	6.7	6.7	6.7	6.0	5.8	5.1	5.2	5.6	5.7	5.8	5.4	5.6	5.2	5.6	7.1	8.1	9.2	10.3	11.2	13.2	24	13.2
5	11.8	10.8	10.1	11.1	11.7	11.1	10.2	9.5	8.2	7.2	7.4	8.1	8.1	7.6	7.5	7.1	7.9	7.3	7.9	9.1	9.5	9.9	9.8	10.1	24	11.8
6	10.1	10.4	10.6	11.1	11.3	12.0	11.7	11.6	10.6	9.9	10.9	11.4	10.7	9.4	8.5	8.1	7.3	6.0	6.0	6.5	6.8	6.0	5.9	6.1	24	12.0
7	6.4	7.2	7.3	7.2	7.1	7.3	7.1	6.8	7.2	7.3	6.9	6.8	8.2	7.2	7.1	7.5	7.1	4.5	3.3	4.6	6.1	6.6	6.7	6.7	24	8.2
8	6.5	5.6	5.9	5.8	5.9	6.0	5.9	6.8	AZ	7.9	5.9	5.1	3.9	3.6	3.4	3.9	6.7	5.1	5.2	5.7	5.9	5.3	4.6	4.3	23	7.9
9	4.3	3.7	3.9	4.0	4.5	4.3	4.2	3.9	3.9	5.6	4.5	4.6	5.4	6.7	6.5	4.8	4.8	5.0	4.0	4.2	4.7	5.6	6.2	5.7	24	6.7
10	6.7	7.3	9.9	8.3	7.7	7.2	6.3	6.3	6.3	6.5	6.4	7.6	6.9	9.3	7.2	6.4	6.1	4.8	4.9	5.5	6.1	5.9	6.3	6.4	24	9.9
11	6.8	7.2	6.6	7.0	7.1	6.7	5.3	6.0	5.8	5.6	5.2	4.8	4.5	4.5	4.8	4.6	4.7	4.6	4.9	7.9	6.5	6.4	6.8	6.1	24	7.9
12	6.3	5.9	6.7	6.4	5.8	5.5	5.3	6.3	8.0	9.5	9.4	9.1	9.7	9.3	9.6	9.8	9.1	9.1	9.6	10.2	10.3	11.3	12.7	12.9	24	12.9
13	13.3	13.5	13.6	13.4	13.3	13.2	15.1	20.4	22.2	23.5	24.1	23.4	22.2	22.3	21.4	22.0	24.1	23.8	23.7	24.9	27.1	30.5	33.0	34.3	24	34.3
14	34.0	33.7	33.1	32.7	32.0	31.2	31.8	36.1	36.7	33.5	28.4	30.2	31.9	35.5	33.3	32.8	31.6	33.9	32.9	31.8	33.0	32.2	31.1	30.1	24	36.7
15	30.7	30.7	29.6	28.6	28.3	27.0	26.0	28.0	29.4	30.8	30.7	30.0	28.4	27.7	27.1	27.8	29.5	30.8	28.5	26.2	25.1	24.9	25.7	25.3	24	30.8
16	27.0	27.5	26.8	28.3	27.3	26.6	29.4	30.3	27.9	27.8	27.4	25.1	25.5	22.0	21.7	23.1	23.1	22.8	22.2	23.2	22.1	22.3	24.2	26.8	24	30.3
17	24.6IT	21.9IT	22.1IT	21.0IT	21.6IT	21.9IT	22.8IT	22.0IT	21.7IT	21.3IT	22.8IT	14.1IT	15.0IT	17.5IT	19.9IT	20.7IT	21.1IT	21.6IT	20.2IT	19.9IT	20.2IT	19.6IT	19.3IT	18.9IT	24	24.6
18	18.6	17.3	16.0	15.7	16.0	16.5	17.9	17.2	11.5	7.8	5.9	6.0	5.9	6.4	7.6	8.2	8.7	8.4	6.7	5.9	6.3	6.9	7.2	8.0	24	18.6
19	8.5	7.2	6.8	6.3	6.0	5.9	5.1	4.8	4.7	4.6	4.6	4.9	5.1	4.9	4.8	4.7	4.9	5.2	5.3	5.5	5.7	6.2	5.8	6.4	24	8.5
20	7.5	7.9	7.2	7.5	7.2	8.0	7.4	8.3	6.4	6.2	7.5	8.0	7.8	7.3	7.8	7.8	7.7	7.9	8.3	9.9	10.5	12.1	13.5	14.3	24	14.3
21	13.8	14.4	14.8	15.7	16.2	16.6	15.4	15.6	14.3	12.5	11.0	11.4	12.6	12.4	11.8	11.9	11.6	11.4	11.5	11.4	12.7	13.1	13.7	13.5	24	16.6
22	13.8IT	13.5IT	13.7IT	12.7IT	13.2IT	13.3IT	14.4IT	14.3IT	AZ	17.3IT	18.0IT	18.0IT	16.3IT	15.6IT	15.7IT	15.1IT	15.2IT	14.2IT	14.2IT	14.9IT	14.9IT	16.3IT	18.0IT	16.7IT	23	18.0
23	17.9	18.6	19.3	18.8	15.9	13.8	12.9	9.9	8.4	8.1	8.4	9.2	8.1	7.5	6.8	7.5	7.2	6.8	7.3	7.5	8.3	9.1	11.7	12.8	24	19.3
24	12.5	10.4	10.6	10.3	10.8	10.7	8.8	8.3	9.6	8.4	8.3	9.6	10.4	9.7	8.8	10.9	8.8	8.3	8.2	9.5	11.0	10.4	11.1	11.1	24	12.5
25	11.7	12.1	12.5	13.2	15.2	14.1	11.7	17.5	12.8	11.1	11.2	11.2	11.4	13.6	13.7	14.7	12.6	12.5	12.5	12.5	12.7	12.8	12.7	14.4	24	17.5
26	12.8	12.1	12.4	14.0	14.2	14.8	14.3	14.5	14.0	13.4	12.0	13.9	13.8	8.3	9.1	8.3	7.9	7.5	7.8	8.0	8.3	8.8	9.4	9.1	24	14.8
27	9.6	9.8	9.4	8.3	7.2	6.3	5.8	5.8	5.8	5.9	6.0	6.2	6.0	5.8	6.2	6.8	6.7	6.4	5.8	6.1	6.5	7.0	7.1	7.8	24	9.8
28	8.0	8.0	8.2	8.6	8.8	9.2	8.9	8.9	9.6	9.1	8.8	9.8	9.4	8.7	9.2	9.1	9.6	9.7	9.5	9.6	10.1	9.6	9.4	9.4	24	10.1
29	9.5	8.8	8.7	8.0	8.1	8.2	9.6	9.8	9.8	9.9	10.8	9.3	11.4	11.2	11.8	15.1	11.8	11.6	11.4	11.6	12.0	12.2	14.3	13.8	24	15.1
30	14.2	13.0	11.7	10.6	10.5	12.2	12.5	10.4	7.0	5.3	4.7	4.5	4.4	4.0	4.1	4.6	4.4	4.2	5.3	3.7	4.8	5.7	5.4	5.0	24	14.2
31																									0	
NO.:	30	30	30	30	30	30	30	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	34.0	33.7	33.1	32.7	32.0	31.2	31.8	36.1	36.7	33.5	30.7	30.2	31.9	35.5	33.3	32.8	31.6	33.9	32.9	31.8	33.0	32.2	33.0	34.3		
AVG:	12.43	12.15	12.15	12.02	12.05	11.91	11.69	12.11	11.65	11.34	11.05	10.89	10.88	10.70	10.55	10.82	10.74	10.49	10.38	10.69	11.10	11.47	12.04	12.32		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 11.40 MONTHLY MAX: 36.7

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JULY 2022

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

DAY	HOUR 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	5.2	5.1	5.1	5.3	5.3	5.4	5.7	5.1	4.3	4.0	4.0	4.0	4.0	4.0	4.2	4.1	3.9	4.2	4.4	4.8	5.2	5.7	4.9	4.2	24	5.7
2	4.0	3.8	4.0	4.1	4.0	4.2	4.4	4.6	4.6	4.4	4.8	5.4	5.2	5.3	5.6	5.6	5.5	5.8	6.5	5.8	5.2	6.1	4.6	4.2	24	6.5
3	3.8	3.6	3.7	3.6	3.4	3.6	4.0	4.2	5.3	5.8	5.2	3.9	4.4	4.6	4.3	3.7	3.4	3.7	4.1	4.7	8.9	9.0	7.8	7.9	24	9.0
4	7.5	6.4	6.3	6.7	6.8	7.2	7.2	6.9	7.8	8.0	8.1	9.0	8.5	8.2	7.1	7.2	7.4	8.3	9.6	9.9	23.9	13.4	13.2	13.4	24	23.9
5	10.1	10.5	10.1	9.0	8.0	7.2	6.8	6.5	6.4	7.0	8.1	9.4	9.4	9.6	10.4	9.8	9.4	10.0	9.8	10.9	10.9	11.4	11.2	9.5	24	11.4
6	8.2	7.0	6.0	5.8	5.5	5.4	5.4	6.5	7.5	8.0	8.7	9.7	9.7	8.8	9.2	9.0	9.2	9.6	9.7	10.2	9.6	9.7	11.0	11.6	24	11.6
7	11.8	11.8	11.5	11.0	10.6	9.6	9.5	9.3	AZ	9.6	9.1	10.7	10.2	8.7	8.4	8.0	8.1	8.0	7.8	7.9	8.2	8.5	8.9	8.4	23	11.8
8	8.3	8.4	8.7	8.3	8.0	8.0	7.9	8.0	7.8	8.1	8.3	8.4	9.0	9.7	9.7	9.8	9.4	9.2	9.0	9.1	9.7	10.0	9.8	9.4	24	10.0
9	9.0	8.5	8.4	8.3	6.7	5.4	5.0	5.7	7.6	8.1	9.0	10.2	11.3	12.3	11.0	8.9	8.5	8.0	6.6	7.7	6.5	5.3	5.3	5.5	24	12.3
10	6.1	7.4	7.7	9.7	8.1	11.6	9.8	4.4	5.8	6.5	7.9	8.7	10.1	9.5	9.2	9.2	9.1	9.1	8.6	8.5	8.6	8.0	6.8	6.6	24	11.6
11	6.7	6.8	6.5	6.8	7.6	8.9	9.1	21.0	15.9	8.0	8.0	9.3	10.4	10.6	12.6	8.9	9.8	9.5	9.5	9.7	9.6	10.1	10.9	10.6	24	21.0
12	8.6	9.3	11.0	11.7	12.5	12.1	11.6	10.4	10.0	10.2	11.0	10.9	10.2	10.2	10.2	10.4	10.8	11.3	11.0	11.7	12.0	12.0	12.5	13.6	24	13.6
13	8.0	7.3	7.0	7.0	6.9	7.3	6.8	5.6	7.2	16.9	22.0	5.8	6.0	7.9	8.3	8.6	8.7	8.3	8.5	8.8	7.6	7.3	7.4	7.3	24	22.0
14	7.7	8.3	8.0	7.8	7.9	7.7	8.0	8.5	9.5	9.1	8.4	9.3	9.2	9.2	8.7	8.0	8.0	8.4	8.9	9.5	9.2	9.3	11.3	10.5	24	11.3
15	10.7	10.5	10.6	12.2	11.6	11.3	9.9	8.4	10.3	8.2	8.2	9.1	9.0	9.8	9.5	10.0	10.0	9.5	9.0	9.8	11.2	10.7	10.2	10.1	24	12.2
16	11.0	11.7	11.3	11.1	11.5	10.7	10.9	11.2	10.8	9.3	10.2	10.9	10.2	10.1	8.9	9.3	9.1	9.4	8.4	8.0	8.4	9.2	9.6	9.0	24	11.7
17	9.3	9.4	9.9	9.3	8.4	8.6	8.2	8.1	8.1	8.8	9.9	10.6	11.4	10.9	10.6	11.2	12.0	12.2	12.1	12.8	13.6	14.2	14.1	12.9	24	14.2
18	9.8	3.5	3.5	3.7	3.8	4.1	3.8	3.9	3.7	3.6	4.0	3.7	5.5	12.3	18.0	18.4	18.7	18.4	18.2	18.4	18.2	18.1	14.3	11.7	24	18.7
19	9.6	7.3	6.6	6.1	7.1	7.8	10.0	12.7	14.5	13.2	11.1	9.7	9.0	8.3	8.3	8.8	8.3	7.9	8.1	8.3	8.7	8.2	7.1	6.6	24	14.5
20	6.3	5.7	5.8	6.5	7.2	7.8	8.1	9.3	10.4	11.2	11.2	11.5	11.2	11.3	11.7	11.6	11.9	11.5	11.3	11.6	11.8	11.4	11.7	11.5	24	11.9
21	11.0	10.6	10.6	10.6	10.6	10.6	10.9	11.2	12.8	AZ	14.7	13.9	14.8	14.7	16.6	16.4	16.6	16.2	15.5	15.9	19.5	23.1	26.5	28.5	23	28.5
22	28.9IT	29.9IT	29.1IT	27.5IT	17.6IT	12.4IT	9.0IT	8.6IT	11.2IT	14.3IT	16.9IT	18.7IT	18.6IT	18.3IT	17.7IT	16.6IT	16.2IT	15.9IT	15.9IT	16.1IT	13.4IT	13.4IT	14.8IT	13.4IT	24	29.9
23	11.2	9.5	8.3	7.8	8.2	7.3	7.0	7.5	6.8	5.5	5.3	5.4	5.8	6.3	6.6	6.5	6.4	6.9	6.2	6.8	7.3	7.2	7.7	8.0	24	11.2
24	8.7	8.9	8.7	8.4	8.6	8.4	7.9	8.2	8.4	8.3	8.4	8.5	8.6	9.5	9.3	8.9	9.0	9.6	9.1	9.0	8.8	8.5	8.8	8.0	24	9.6
25	7.9	7.5	6.7	6.6	6.5	6.7	6.6	7.5	8.5	8.6	8.6	8.9	9.5	9.5	9.4	9.4	9.0	7.0	7.0	7.1	7.4	7.9	8.4	8.7	24	9.5
26	8.7	8.2	7.8	7.7	7.6	7.2	6.6	6.2	6.8	7.0	6.7	6.7	6.9	6.9	7.2	7.7	7.8	10.4	11.6	15.4	9.8	8.2	7.5	7.8	24	15.4
27	7.9	6.6	6.0	5.7	5.2	5.1	5.9	6.1	6.5	7.1	7.0	7.2	6.9	7.2	7.2	6.9	7.1	6.2	5.5	7.2	7.0	6.7	6.7	6.6	24	7.9
28	6.7	6.2	6.0	5.7	6.0	6.0	6.1	6.4	7.2	AV	AV	AV	10.2	8.1	6.8	6.5	6.7	6.1	6.3	5.7	5.4	5.7	6.9	6.4	21	10.2
29	6.7	7.4	6.7	5.9	5.8	4.6	3.9	2.7	2.8	2.7	2.7	2.7	2.7	2.9	3.1	3.0	2.9	3.1	3.5	4.4	4.2	3.7	5.3	7.0	24	7.4
30	7.0	6.1	6.4	7.8	7.6	7.7	7.7	6.5	4.0	3.7	3.9	4.3	4.5	4.6	3.9	5.0	8.5	6.8	4.7	1.6	1.5	2.0	2.3	2.8	24	8.5
31	2.8	2.9	3.1	3.3	3.7	3.8	4.3	4.5	4.2	4.9	5.9	6.2	7.7	9.2	6.4	4.8	6.9	8.1	7.9	7.9	8.1	8.3	8.5	9.2	24	9.2
NO.:	31	31	31	31	31	31	31	31	30	29	30	30	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	28.9	29.9	29.1	27.5	17.6	12.4	11.6	21.0	15.9	16.9	22.0	18.7	18.6	18.3	18.0	18.4	18.7	18.4	18.2	18.4	23.9	23.1	26.5	28.5		
AVG:	8.68	8.26	8.10	8.10	7.69	7.54	7.35	7.60	7.89	7.93	8.58	8.42	8.71	8.98	9.04	8.78	8.98	8.99	8.85	9.20	9.66	9.43	9.55	9.38		

MONTHLY OBSERVATIONS: 739 MONTHLY MEAN: 8.57 MONTHLY MAX: 29.9

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: AUGUST 2022

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	9.9	10.4	11.0	10.9	10.8	10.5	10.4	10.5	10.1	8.9	AZ	6.2	5.6	5.1	5.6	6.0	6.0	6.0	5.7	5.1	5.0	5.1	5.4	5.8	23	11.0
2	5.6	6.0	6.3	6.4	6.5	5.4	4.5	4.0	4.5	4.1	4.4	4.6	4.7	4.7	4.8	4.7	5.0	5.0	5.3	5.9	6.4	5.9	6.0	5.6	24	6.5
3	5.1	5.5	5.6	5.4	5.6	5.4	5.6	5.9	6.9	5.6	5.9	6.3	7.4	7.0	7.1	7.0	7.0	7.2	7.6	7.9	7.9	8.5	9.0	9.7	24	9.7
4	9.0	8.5	7.9	8.4	8.8	7.9	6.5	5.3	5.7	5.9	6.7	6.9	8.9	7.8	7.8	7.4	6.6	6.5	6.9	6.6	7.0	8.0	8.1	8.8	24	9.0
5	8.7	8.9	8.6	8.3	8.3	AV	AV	AV	7.8	5.9	4.0	3.9	3.7	4.0	3.7	4.2	4.8	5.3	5.9	5.9	5.7	5.8	6.1	6.1	21	8.9
6	6.4	6.0	5.6	5.4	5.3	5.4	5.4	5.1	5.0	4.8	4.8	5.0	4.9	4.9	4.5	4.2	4.6	4.4	4.8	5.3	6.2	6.4	6.3	5.4	24	6.4
7	4.7	4.4	4.9	4.9	5.2	4.9	4.6	4.8	5.0	5.1	4.8	4.5	4.5	4.8	5.1	5.3	5.6	5.6	5.6	6.6	8.0	8.6	6.9	7.3	24	8.6
8	7.4	7.6	7.6	7.4	7.0	6.6	5.9	6.3	7.5	7.6	6.8	6.2	6.3	6.4	6.7	6.6	6.6	6.7	6.0	5.3	5.3	5.7	5.7	5.7	24	7.6
9	5.2	4.2	4.2	4.1	4.0	4.3	5.3	6.4	6.3	6.2	6.2	6.8	7.1	7.4	7.9	5.2	3.6	3.3	3.6	3.5	3.9	4.5	5.1	5.4	24	7.9
10	5.3	5.7	6.4	6.8	6.8	7.2	7.0	6.5	5.3	5.3	4.7	4.2	4.1	4.1	3.9	4.2	3.9	3.1	3.4	4.0	4.1	4.2	4.6	5.1	24	7.2
11	4.9	5.2	4.8	4.5	5.3	5.8	5.6	5.5	5.1	AZ	AZ	AZ	4.8	4.6	4.5	4.6	5.1	4.6	5.4	5.4	5.9	7.3	9.6	10.3	21	10.3
12	9.4	9.7	10.0	10.7	10.6	11.3	13.1	11.5	10.0	9.5	9.5	9.4	8.8	10.3	10.5	11.6	10.7	10.0	10.0	10.2	10.0	8.7	7.9	8.1	24	13.1
13	8.3	8.0	7.8	8.0	8.6	8.0	25.9	10.5	9.5	9.4	8.7	8.4	8.5	8.5	8.3	9.5	8.8	8.4	8.0	7.9	8.5	8.8	8.5	8.5	24	25.9
14	8.2	9.8	9.6	10.3	11.0	9.8	9.9	9.0	10.0	9.6	9.9	9.4	9.6	9.1	9.4	9.2	9.2	8.6	8.6	8.9	8.9	10.4	10.6	10.1	24	11.0
15	10.1	10.9	10.9	11.6	11.2	11.1	11.3	9.9	9.6	10.3	11.0	10.9	11.6	12.6	15.7	16.8	15.7	15.1	15.0	12.9	13.1	13.9	13.4	12.7	24	16.8
16	12.6	12.1	12.7	13.8	14.1	13.8	13.7	13.5	13.8	13.1	11.8	11.5	11.5	11.9	12.2	12.7	12.5	13.6	12.5	11.0	10.1	10.0	9.2	9.4	24	14.1
17	8.9	9.2	9.4	8.2	9.2	9.5	9.8	9.6	8.9	8.8	8.3	7.9	7.8	7.3	7.4	6.6	6.1	6.1	6.1	6.3	7.0	6.3	6.5	7.2	24	9.8
18	7.9	7.8	8.5	9.2	10.1	11.0	12.4	10.7	AZ	9.7	9.1	8.2	8.4	9.1	9.3	9.7	10.4	9.9	9.1	9.0	10.0	10.3	10.2	10.7	23	12.4
19	11.0	11.6	11.7	12.3	12.2	13.3	13.9	14.1	13.8	14.0	12.3	12.5	12.6	12.4	12.7	11.8	11.7	12.0	12.8	13.8	12.9	13.5	15.5	16.0	24	16.0
20	15.2	15.8	14.8	14.5	12.9	10.2	8.7	7.7	7.5	6.9	6.5	7.7	6.7	8.8	7.2	6.7	6.9	7.3	6.7	12.5	7.2	8.1	9.7	9.3	24	15.8
21	7.3	6.0	5.6	5.6	5.3	5.3	5.1	4.8	5.6	7.8	7.1	4.1	6.5	8.6	9.8	9.7	4.5	4.7	5.4	6.2	6.5	6.2	6.6	7.5	24	9.8
22	7.8	7.8	7.7	8.5	8.8	8.8	8.6	8.4	8.0	7.8	7.8	6.9	5.6	AZ	4.6	2.5	2.3	1.9	1.5	1.2	1.1	1.1	1.0	1.1	23	8.8
23	1.4	2.0	1.5	1.2	.9	.7	.7	.8	1.1	2.8	2.8	2.1	2.6	2.3	2.0	2.0	1.9	1.7	1.5	1.4	1.2	1.3	1.2	1.1	24	2.8
24	.9	.9	1.0	1.0	1.0	1.0	.8	.7	.8	1.1	1.2	1.2	1.1	1.1	1.0	1.1	1.0	.9	.7	.7	.6	.6	.6	.6	24	1.2
25	.6	.6	.7	.7	.7	.7	.7	.7	.9	1.0	1.2	1.4	1.5	1.6	1.7	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	24	2.1
26	2.3	2.8	2.4	2.4	2.4	2.6	2.6	2.4	2.0	1.9	2.0	2.0	2.0	2.0	2.4	2.2	1.9	1.7	1.6	1.8	2.0	2.0	2.0	2.0	24	2.8
27	2.1	2.0	2.3	2.4	2.3	2.4	2.3	2.4	2.5	2.6	2.6	2.8	2.8	2.7	2.8	2.7	2.8	2.7	2.6	2.8	3.1	3.3	3.3	3.2	24	3.3
28	3.1	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5	2.0	1.5	1.4	1.2	1.1	1.8	3.6	2.5	2.0	1.9	1.6	1.5	1.5	1.5	24	3.6
29	2.0	2.6	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	2.0	1.7	1.4	1.2	1.6	1.9	2.0	2.2	2.0	1.9	1.6	1.6	24	2.6
30	1.6	1.5	1.3	1.1	.9	.8	.8	1.0	1.1	1.7	1.5	1.5	2.6	3.3	2.3	2.0	1.9	1.7	1.5	1.6	1.6	1.7	2.0	2.0	24	3.3
31	2.0	2.4	2.5	2.4	2.6	2.5	2.5	2.7	2.8	2.8	2.8	2.9	3.0	2.9	2.9	2.8	2.9	3.0	3.0	2.9	3.2	3.3	3.4	3.4	24	3.4
NO.:	31	31	31	31	31	30	30	30	30	30	29	30	31	30	31	31	31	31	31	31	31	31	31	31		
MAX:	15.2	15.8	14.8	14.5	14.1	13.8	25.9	14.1	13.8	14.0	12.3	12.5	12.6	12.6	15.7	16.8	15.7	15.1	15.0	13.8	13.1	13.9	15.5	16.0		
AVG:	6.29	6.41	6.40	6.49	6.55	6.36	6.94	6.18	6.05	6.16	5.81	5.63	5.76	5.94	6.01	5.93	5.71	5.59	5.57	5.76	5.74	5.96	6.11	6.24		

MONTHLY OBSERVATIONS: 735 MONTHLY MEAN: 6.07 MONTHLY MAX: 25.9

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: SEPTEMBER 2022

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

DAY	HOUR 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	3.6	4.0	3.7	3.7	3.7	3.9	4.0	3.7	AZ	9.2	10.3	8.2	7.8	7.5	8.0	8.0	8.0	9.5	9.5	8.9	9.4	9.8	9.2	9.8	23	10.3
2	9.3	9.2	10.7	10.9	10.0	9.8	9.7	9.5	8.2	8.0	8.5	9.0	7.9	7.8	7.6	8.0	7.8	7.7	8.3	8.8	9.1	8.7	8.6	9.1	24	10.9
3	8.7	8.7	9.1	8.8	8.7	9.7	9.9	9.6	9.7	8.9	8.6	6.6	6.1	6.7	6.0	8.6	8.5	8.2	4.9	4.5	4.4	4.5	5.9	13.9	24	13.9
4	12.2	12.2	7.4	6.2	6.5	5.4	5.2	6.0	6.8	6.6	6.3	7.1	7.4	5.3	5.1	5.5	7.3	7.8	8.2	9.9	9.9	10.0	9.9	10.1	24	12.2
5	9.6	9.7	9.9	10.0	9.9	9.7	8.8	8.1	7.6	7.5	7.2	7.1	6.9	6.5	6.4	6.9	6.6	6.6	8.4	8.6	9.3	8.5	8.3	8.3	24	10.0
6	9.1	9.8	9.3	9.5	9.1	9.0	8.9	7.7	7.3	5.9	5.3	6.0	7.0	6.9	6.6	6.7	7.7	6.5	6.7	6.6	6.4	6.7	6.5	6.1	24	9.8
7	6.6	6.8	6.2	6.1	5.7	5.8	6.4	7.9	8.5	8.0	8.3	7.9	7.5	7.1	6.2	4.9	4.9	5.5	6.2	7.2	6.5	6.1	6.3	6.6	24	8.5
8	6.8	6.9	7.0	7.0	6.7	6.5	7.5	6.8	6.8	6.0	5.6	5.7	5.6	5.5	5.3	5.3	5.6	6.2	7.0	7.3	8.2	8.8	8.7	8.5	24	8.8
9	7.1	6.4	6.4	6.3	5.7	5.9	6.4	6.4	6.8	7.3	6.5	6.4	7.2	6.6	6.7	6.5	6.8	6.3	5.0	3.7	3.7	4.2	4.2	4.4	24	7.3
10	4.5	4.8	4.9	4.8	5.0	5.2	4.9	4.6	3.7	3.4	3.6	2.4	2.5	3.4	4.0	4.3	4.1	3.3	3.4	3.8	4.4	4.6	5.0	5.3	24	5.3
11	5.8	5.8	6.2	6.0	6.0	6.0	6.8	5.6	4.7	3.4	3.6	4.5	5.6	5.1	6.2	6.8	7.9	6.0	4.1	3.1	2.8	3.2	4.9	4.9	24	7.9
12	4.6	4.6	5.0	5.0	5.5	7.2	8.1	7.2	7.0	7.1	4.8	4.5	4.9	4.1	3.8	3.7	3.6	4.6	6.7	7.2	7.7	7.2	6.0	5.9	24	8.1
13	4.8	4.6	4.4	4.8	5.0	5.4	5.5	5.9	6.1	6.2	6.3	6.4	6.9	6.6	6.9	6.6	8.1	7.3	7.9	7.5	9.2	9.6	10.2	10.0	24	10.2
14	12.9	13.1	11.8	10.5	10.8	10.5	11.6	14.9	14.4	10.0	9.4	10.2	12.0	12.6	13.7	12.5	8.9	7.0	6.8	6.8	7.5	7.4	8.4	6.6	24	14.9
15	5.5	5.3	5.7	5.9	6.1	6.1	AZ	5.3	5.7	5.1	4.3	4.3	4.4	4.9	4.7	5.0	4.8	4.8	5.2	4.6	5.4	6.5	7.3	8.9	23	8.9
16	7.0	6.1	6.1	6.5	8.4	9.1	22.9	10.3	7.4	7.2	10.2	11.0	9.8	10.6	11.7	11.3	10.2	10.1	10.6	10.7	11.3	11.5	10.6	11.5	24	22.9
17	11.7	10.0	10.7	10.2	10.4	10.7	11.0	11.6	10.2	9.8	10.6	11.4	11.8	11.9	12.1	12.3	12.0	12.1	19.3	21.8	22.7	15.9	14.4	13.6	24	22.7
18	13.4	14.2	13.4	13.9	13.3	13.9	14.1	13.5	12.1	11.9	11.5	11.3	10.7	10.1	10.1	9.9	9.8	10.6	11.6	11.7	12.0	12.3	13.5	13.0	24	14.2
19	13.2	14.2	14.0	14.9	14.4	15.1	15.3	14.0	12.6	10.0	9.2	8.6	9.1	9.6	12.7	10.4	9.0	9.3	9.9	10.8	13.8	13.1	10.8	11.0	24	15.3
20	10.8	11.5	11.1	11.3	11.9	12.3	12.5	11.8	11.3	9.0	7.7	8.0	8.0	12.1	17.3	11.5	14.0	16.8	17.6	18.4	18.7	20.4	21.6	22.8	24	22.8
21	23.3	22.1	22.9	22.3	21.9	22.4	20.5	17.7	13.7	13.2	11.6	12.5	13.3	13.0	29.2	22.1	13.0	16.3	16.8	22.1	17.5	16.3	14.9	14.3	24	29.2
22	13.5	13.8	16.7	21.0	20.4	20.8	19.8	10.4	6.5	6.5	8.0	8.9	8.2	7.4	6.3	5.7	5.0	5.1	5.8	7.1	6.2	4.9	4.3	3.8	24	21.0
23	3.7	3.7	3.8	3.8	4.1	4.1	4.1	4.1	4.0	4.0	3.7	3.7	3.6	3.3	3.3	3.3	3.6	4.2	4.6	4.4	5.2	6.0	5.6	28.1	24	28.1
24	58.3	15.9	10.6	7.2	7.4	8.3	8.9	8.6	6.9	6.2	6.4	8.5	15.5	13.5	21.0	18.6	17.9	19.0	18.8	25.4	15.1	11.3	14.2	15.1	24	58.3
25	14.4	13.3	12.6	12.1	11.0	9.3	7.6	7.8	9.5	10.8	11.1	12.3	11.8	12.6	12.7	8.0	7.3	8.4	11.3	20.2	19.1	17.4	14.6	10.8	24	20.2
26	6.2	5.9	6.9	6.2	6.1	6.6	6.2	5.6	5.9	5.3	4.3	3.9	3.9	4.5	BL	BL	24.5	30.7	23.1	15.0	12.1	10.5	8.2	7.3	22	30.7
27	7.1	6.2	6.4	6.4	6.8	7.7	9.6	10.1	11.6	3.9	4.3	5.3	4.4	3.9	4.1	4.6	4.4	4.7	5.4	7.5	7.2	8.1	8.0	8.1	24	11.6
28	8.1	7.7	7.1	6.2	6.4	6.0	6.9	4.9	4.1	3.7	4.0	3.9	3.9	4.0	3.7	3.3	3.7	3.6	3.9	3.3	3.3	3.3	3.5	3.5	24	8.1
29	3.4	3.5	3.3	3.5	3.7	3.9	4.2	4.1	3.9	3.8	3.8	AZ	3.5	3.4	3.6	3.5	3.7	3.5	3.6	4.1	4.1	3.6	3.3	3.6	23	4.2
30	3.6	3.6	3.6	3.7	4.0	4.6	5.4	5.0	4.9	5.1	5.3	5.7	5.5	5.7	5.1	4.9	4.8	4.7	5.0	5.4	10.6	27.8	30.5	24.6	24	30.5
31																									0	
NO.:	30	30	30	30	30	30	29	30	29	30	30	29	30	30	29	29	30	30	30	30	30	30	30	30		
MAX:	58.3	22.1	22.9	22.3	21.9	22.4	22.9	17.7	14.4	13.2	11.6	12.5	15.5	13.5	29.2	22.1	24.5	30.7	23.1	25.4	22.7	27.8	30.5	28.1		
AVG:	10.29	8.79	8.56	8.49	8.49	8.70	9.40	8.29	7.86	7.10	7.01	7.29	7.42	7.41	8.62	7.89	8.12	8.55	8.85	9.55	9.43	9.61	9.58	10.32		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 8.57 MONTHLY MAX: 58.3

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: OCTOBER 2022

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

DAY	HOUR 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	17.9	16.0	15.7	15.6	16.3	13.5	11.1	9.1	7.8	7.2	5.6	5.1	5.2	4.9	4.7	5.5	5.5	5.0	5.0	5.1	5.9	7.6	8.7	8.8	24	17.9
2	7.4	6.3	6.2	5.8	5.5	5.1	5.3	5.1	4.5	3.7	3.7	3.5	3.6	3.3	3.5	3.5	3.6	3.6	4.6	7.3	6.7	4.3	4.0	4.1	24	7.4
3	4.3	4.6	5.0	5.1	5.9	5.9	7.0	7.1	7.5	8.0	7.3	7.1	7.3	7.5	6.9	6.2	5.9	6.2	6.6	6.7	7.6	8.1	7.6	7.8	24	8.1
4	7.5	6.9	6.5	6.5	7.0	7.2	7.7	7.4	6.4	5.6	5.2	5.6	5.3	5.3	5.5	5.2	5.1	5.6	5.2	5.6	6.3	5.8	5.9	6.0	24	7.7
5	7.6	9.1	8.5	7.7	8.4	8.6	9.1	7.9	7.7	6.1	5.5	5.6	6.1	5.7	5.8	5.3	5.6	7.4	8.2	8.1	9.5	10.3	9.9	9.6	24	10.3
6	8.8IM	9.1IM	9.5IM	9.2IM	8.8IM	9.0IM	8.9IM	8.2IM	8.6IM	12.4IM	14.3IM	21.8IM	17.9IM	22.1IM	49.0IM	12.1IM	11.1IM	14.0IM	19.0IM	21.7IM	25.7IM	28.1IM	29.4IM	29.6IM	24	49.0
7	34.8IM	30.4IM	22.9IM	20.0IM	19.8IM	21.1IM	24.6IM	19.6IM	14.3IM	12.2IM	11.2IM	11.3IM	10.9IM	11.5IM	12.9IM	12.6IM	22.1IM	84.2IM	51.9IM	23.5IM	19.3IM	14.5IM	12.5IM	8.8IM	24	84.2
8	7.4	6.8	6.6	6.2	5.6	5.0	5.2	4.6	4.0	3.6	3.4	3.6	3.4	3.4	3.3	3.3	3.3	3.5	4.4	5.5	6.5	7.3	6.7	6.8	24	7.4
9	5.9	14.9	6.8	6.3	5.9	5.6	5.6	4.6	3.6	6.3	9.1	7.8	9.4	10.0	10.3	10.4	17.8	25.7	38.5	30.8	31.5	25.6	23.8	23.2	24	38.5
10	22.7	20.1	22.0	18.9	14.4	13.5	14.5	11.6	10.5	10.3	11.1	12.7	11.2	10.3	16.0	20.2	15.8	14.2	16.3	14.3	11.7	11.1	11.3	11.9	24	22.7
11	12.7	12.6	13.6	14.2	14.2	14.3	13.9	11.1	AZ	7.1	8.7	8.8	9.7	10.1	9.9	9.2	9.0	9.7	9.6	8.2	8.6	9.8	10.6	11.6	23	14.3
12	12.3	13.1	13.9	15.0	16.2	17.4	18.4	18.4	15.7	11.0	10.1	11.4	11.6	11.0	7.5	5.5	6.9	7.5	9.7	10.6	10.7	11.0	11.6	12.7	24	18.4
13	12.8	13.2	13.5	12.1	13.2	10.0	7.9	7.5	6.3	6.7	7.0	6.4	4.5	4.2	4.2	4.5	4.2	4.6	7.5	7.7	7.7	8.1	9.0	8.3	24	13.5
14	8.0	8.1	8.7	9.8	10.7	11.8	11.9	9.3	6.7	5.2	4.7	4.6	4.9	4.5	5.6	9.8	21.7	14.6	9.8	9.0	8.5	7.4	6.9	7.6	24	21.7
15	7.2	6.7	6.5	6.3	6.3	6.7	7.2	8.1	9.8	10.4	10.8	16.0	11.9	10.1	9.8	10.0	10.5	11.2	12.1	11.9	11.7	11.1	11.4	12.4	24	16.0
16	12.1	9.8	7.6	8.4	9.1	9.5	9.6	9.8	8.4	7.4	6.3	5.2	5.3	5.6	4.1	3.7	3.6	3.5	3.8	4.0	4.3	4.8	5.0	5.8	24	12.1
17	6.9	7.2	6.7	6.9	6.9	7.2	6.8	7.5	7.3	7.0	7.9	6.9	5.9	4.4	3.7	3.7	3.6	3.7	4.1	3.6	3.7	3.5	3.5	3.3	24	7.9
18	3.3	3.5	3.5	3.3	3.3	3.4	3.5	4.1	4.5	5.2	4.2	4.2	4.4	4.1	7.0	13.1	12.0	8.7	9.2	7.6	6.9	7.1	6.7	5.9	24	13.1
19	5.7	5.0	4.0	3.7	3.5	3.5	4.1	4.0	4.3	4.5	3.9	3.0	2.9	2.7	3.4	4.5	9.5	5.2	4.9	4.4	4.6	4.8	6.3	7.2	24	9.5
20	7.0	6.6	6.8	8.0	8.9	10.0	10.0	8.1	6.6	6.0	5.2	5.3	5.0	7.1	9.6	9.0	6.1	5.9	7.3	6.3	5.9	6.4	5.9	5.7	24	10.0
21	5.9	6.2	6.6	7.2	7.2	8.6	9.2	9.5	9.1	9.1	10.8	9.8	8.9	8.8	8.5	8.2	7.4	7.4	7.2	7.0	7.5	8.1	7.8	8.1	24	10.8
22	7.6	7.2	7.0	7.1	7.1	7.0	6.7	6.7	6.7	6.7	7.8	9.5	6.9	6.9	5.8	5.8	6.0	6.6	7.4	8.8	9.4	9.8	11.0	12.4	24	12.4
23	12.6	12.6	12.1	11.0	10.4	10.2	9.7	8.5	7.8	5.8	4.6	3.7	3.6	3.8	3.7	3.8	4.2	6.0	6.0	6.8	7.1	8.4	10.8	11.7	24	12.6
24	12.4	12.6	13.9	12.5	12.8	12.0	12.1	11.0	9.8	9.1	8.5	9.1	16.7	42.5	31.5	19.8	10.8	11.0	13.8	12.2	9.4	9.7	10.1	9.5	24	42.5
25	9.0	7.7	6.4	6.3	6.2	5.9	5.3	5.1	6.0	4.3	3.2	3.5	4.0	4.4	3.7	3.5	3.2	2.7	2.0	1.5	1.4	1.6	1.5	2.4	24	9.0
26	2.5	2.9	2.7	3.0	3.3	3.6	3.7	3.9	4.4	4.9	5.2	5.0	5.3	4.7	4.5	4.4	4.4	4.8	5.4	6.7	6.8	6.6	6.6	5.9	24	6.8
27	5.4	5.6	6.6	6.9	7.2	7.7	7.5	7.1	AZ	5.3	5.2	5.4	4.9	5.2	5.6	5.6	5.7	6.3	7.0	8.2	8.4	6.7	6.6	6.7	23	8.4
28	7.0	7.4	7.4	7.4	7.8	8.3	8.9	9.2	9.5	9.7	12.0	12.8	13.5	13.2	13.0	12.5	12.8	13.8	15.7	13.0	13.2	15.5	18.0	14.6	24	18.0
29	10.1	10.4	10.1	9.5	10.3	10.5	10.5	9.6	8.8	8.8	8.7	8.2	7.7	6.6	6.8	7.6	6.8	6.1	6.6	6.5	7.1	6.8	6.7	7.0	24	10.5
30	7.7	7.5	7.6	8.0	8.5	9.1	8.1	9.6	8.3	7.1	6.7	6.7	7.0	7.6	7.7	8.3	8.8	10.4	10.5	11.5	12.7	12.1	11.1	11.4	24	12.7
31	12.1	12.2	12.9	13.3	12.4	12.7	12.1	13.6	11.7	10.5	10.2	7.6	8.9	8.6	6.7	5.5	5.1	6.3	11.3	18.0	11.6	8.1	10.2	11.7	24	18.0
NO.:	31	31	31	31	31	31	31	31	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	34.8	30.4	22.9	20.0	19.8	21.1	24.6	19.6	15.7	12.4	14.3	21.8	17.9	42.5	49.0	20.2	22.1	84.2	51.9	30.8	31.5	28.1	29.4	29.6		
AVG:	9.83	9.75	9.28	9.07	9.13	9.16	9.23	8.61	7.81	7.33	7.36	7.65	7.54	8.39	9.04	7.82	8.33	10.50	10.66	9.75	9.61	9.36	9.58	9.63		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 8.94 MONTHLY MAX: 84.2

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: NOVEMBER 2022

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

DAY	HOUR 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	11.7	12.2	12.6	14.4	14.9	15.4	17.8	16.5	16.4	16.3	14.1	15.5	15.8	14.8	16.1	17.2	17.1	17.0	21.2	26.9	19.9	18.6	19.2	20.9	24	26.9
2	28.3	20.2	15.5	17.0	18.6	19.2	18.7	19.7	19.6	16.0	10.5	6.1	6.3	5.9	4.6	4.0	4.1	6.6	8.8	10.2	8.2	7.6	9.8	13.1	24	28.3
3	8.9	9.0	9.4	9.8	11.5	13.5	13.8	12.6	AZ	12.4	11.4	12.5	12.1	11.6	11.1	10.1	10.4	11.6	13.8	13.5	13.0	13.8	15.2	16.1	23	16.1
4	15.9	16.4	15.7	15.1	15.9	16.4	17.9	20.0	21.3	19.6	22.3	19.1	12.3	10.3	12.2	13.2	10.2	11.8	14.5	16.3	16.1	17.3	18.4	18.4	24	22.3
5	19.7	16.6	9.6	7.7	6.0	7.2	5.2	4.7	4.8	4.8	4.0	3.3	3.8	4.2	4.3	3.9	3.7	4.2	5.0	5.0	5.6	6.3	5.9	6.6	24	19.7
6	6.3	5.9	5.5	5.4	6.4	6.3	6.1	5.4	3.7	4.4	4.7	6.5	7.0	5.1	4.6	4.9	5.3	5.4	6.1	6.7	7.8	8.7	9.4	8.6	24	9.4
7	8.5	8.6	8.4	8.6	8.4	6.7	6.4	7.4	7.2	6.5	5.3	5.2	5.0	5.7	5.5	4.9	5.3	5.1	6.1	6.6	8.1	8.0	10.9	13.3	24	13.3
8	11.6	10.1	9.5	9.9	10.2	11.1	11.4	11.3	9.1	9.0	9.2	8.3	8.7	9.3	10.1	9.3	9.4	9.1	9.3	9.5	10.0	10.8	10.9	10.0	24	11.6
9	10.0	10.7	10.2	11.3	12.3	12.6	12.6	13.0	13.0	9.7	9.8	9.9	9.6	9.7	9.1	8.2	8.7	9.5	10.1	8.3	8.4	9.5	9.7	9.5	24	13.0
10	8.9	9.0	10.1	10.9	11.5	10.4	9.3	9.0	8.3	7.3	7.3	6.4	5.5	4.8	4.8	5.1	5.5	5.6	6.7	6.5	8.4	8.3	8.3	13.9	24	13.9
11	12.1	10.8	9.6	9.7	9.4	9.0	8.6	8.6	7.6	7.3	7.7	8.8	9.2	9.0	9.8	9.6	8.3	8.4	7.3	6.0	5.2	5.0	4.9	5.3	24	12.1
12	5.0	5.4	5.7	5.7	5.4	4.3	5.0	4.8	4.8	5.8	7.3	7.6	6.2	5.6	6.3	5.6	5.5	5.9	6.1	6.4	6.8	6.4	6.6	7.5	24	7.6
13	8.4	7.1	6.4	5.4	5.4	5.0	7.3	9.8	10.3	10.8	8.1	7.8	7.6	7.3	6.8	7.2	6.7	6.8	9.4	11.3	11.6	11.2	11.3	9.9	24	11.6
14	7.9	7.9	7.6	7.6	7.6	7.2	7.2	7.1	7.3	7.2	7.5	9.0	7.7	7.0	6.3	5.4	5.0	5.4	6.2	6.3	7.8	7.2	7.4	7.9	24	9.0
15	8.4	8.1	8.2	8.2	10.1	11.2	12.0	13.1	14.9	14.9	10.6	8.5	6.1	4.7	4.6	5.1	4.6	4.8	5.8	6.2	6.6	5.8	5.4	5.4	24	14.9
16	5.4	5.9	7.9	9.0	10.2	10.7	10.6	12.3	12.7	11.6	9.0	7.2	6.5	5.4	4.6	4.4	4.5	4.6	5.1	6.6	5.8	6.2	7.2	7.9	24	12.7
17	8.7	9.2	8.9	9.4	8.5	8.0	8.1	7.8	7.3	7.4	7.4	6.3	5.9	5.3	5.4	5.3	5.4	13.0	7.0	7.2	8.6	8.4	7.3	6.9	24	13.0
18	6.3	6.3	6.5	6.1	8.2	6.8	7.2	7.3	9.8	AZ	7.1	6.0	6.0	5.5	4.7	4.7	4.5	4.7	4.9	6.4	12.1	12.6	10.8	20.5	23	20.5
19	7.5	6.6	6.2	7.2	6.3	6.3	6.6	7.6	5.5	4.8	5.2	4.8	4.8	4.4	3.7	3.8	4.1	4.9	5.9	7.2	6.4	6.7	6.5	6.3	24	7.6
20	6.5	6.2	5.6	5.6	5.6	6.1	6.5	6.7	6.0	6.1	6.5	6.0	6.3	6.3	6.3	6.3	6.0	8.1	13.3	15.0	13.9	13.8	13.4	13.5	24	15.0
21	13.2	12.1	12.1	11.6	14.5	18.8	20.6	18.1	13.4	12.1	20.8	7.5	7.2	6.5	6.3	16.4	11.1	11.7	17.5	16.9	18.6	20.4	20.1	20.2	24	20.8
22	19.9	17.7	18.2	18.9	19.9	29.7	21.2	17.1	27.5	29.4	8.4	6.6	5.5	6.2	6.0	4.1	4.1	8.0	9.9	11.4	12.6	15.2	18.6	16.7	24	29.7
23	15.1	13.5	12.6	13.5	14.7	18.1	16.9	16.4	14.8	9.7	6.3	4.7	5.4	5.2	7.2	7.2	6.3	7.7	11.8	9.8	8.1	9.2	10.7	11.0	24	18.1
24	11.2	11.7	11.0	11.3	12.1	11.9	13.4	12.7	12.9	14.3	14.7	16.3	16.0	16.7	20.6	21.2	21.1	20.1	19.1	20.2	20.7	19.5	17.1	16.3	24	21.2
25	16.1	19.9	15.9	15.1	18.0	15.7	16.0	17.3	16.9	15.5	11.8	10.3	11.1	10.7	11.7	10.4	7.8	9.2	13.7	19.1	20.7	18.4	15.1	14.6	24	20.7
26	14.5	14.5	15.0	15.2	15.9	15.5	15.7	15.2	14.1	13.6	12.0	9.7	10.2	10.3	10.9	9.9	9.1	8.3	8.3	6.6	4.6	2.8	2.7	3.8	24	15.9
27	4.6	4.7	3.6	3.7	3.1	3.4	3.9	3.9	3.8	3.7	3.6	3.9	3.8	3.7	3.7	3.5	4.0	3.6	3.3	4.2	3.6	5.1	5.2	9.9	24	9.9
28	4.1	9.8	5.6	5.4	6.4	7.2	6.3	5.4	5.9	7.4	7.6	7.0	6.7	5.5	5.6	5.6	5.6	6.3	8.1	7.4	7.7	7.4	7.2	7.2	24	9.8
29	7.1	7.1	7.1	6.7	6.7	7.2	7.2	7.7	6.3	5.6	5.8	4.6	4.1	4.9	5.4	5.4	5.4	5.6	5.8	4.6	4.5	4.6	4.6	4.5	24	7.7
30	5.7	5.4	6.3	5.6	5.0	4.3	4.1	3.7	3.7	3.4	3.0	3.0	3.5	3.5	3.2	3.1	3.3	3.3	3.9	5.3	6.6	7.9	7.0	7.4	24	7.9
31																									0	
NO.:	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	28.3	20.2	18.2	18.9	19.9	29.7	21.2	20.0	27.5	29.4	22.3	19.1	16.0	16.7	20.6	21.2	21.1	20.1	21.2	26.9	20.7	20.4	20.1	20.9		
AVG:	10.58	10.29	9.55	9.70	10.29	10.84	10.79	10.74	10.65	10.23	8.97	7.95	7.53	7.17	7.38	7.50	7.07	7.88	9.13	9.79	9.93	10.09	10.23	11.10		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 9.39 MONTHLY MAX: 29.7

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: DECEMBER 2022

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

DAY	HOUR 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	6.0	6.7	7.2	6.2	5.0	4.2	4.7	4.3	4.1	3.6	3.2	3.1	3.0	3.0	3.1	3.2	3.6	5.8	7.6	4.0	4.3	5.3	3.9	24	7.6
2	4.1	4.6	4.4	5.0	7.3	5.2	5.5	5.4	4.7	AZ	4.5	4.8	5.1	5.7	5.3	4.7	5.2	5.3	5.9	6.9	6.3	6.7	7.4	7.5	23	7.5
3	6.5	6.6	7.0	7.1	7.2	6.3	7.3	7.6	6.3	5.9	5.7	5.7	5.9	4.8	5.5	5.0	5.1	5.8	5.9	6.1	6.2	6.3	6.3	5.9	24	7.6
4	5.4	5.3	5.4	5.7	5.5	5.4	5.5	5.4	5.7	5.4	5.6	6.0	5.6	4.6	4.6	4.6	5.1	5.4	6.5	11.1	9.4	7.0	6.2	6.6	24	11.1
5	6.3	5.9	5.7	4.7	4.5	3.7	4.5	3.8	3.0	3.6	3.3	2.6	2.4	2.8	4.7	3.7	3.3	4.4	4.5	5.0	6.8	8.0	8.1	7.7	24	8.1
6	7.6	7.5	6.8	6.7	6.6	6.0	5.5	5.7	6.5	6.8	6.6	5.9	6.2	6.4	6.4	6.6	6.5	6.7	6.5	6.0	5.9	6.0	6.1	6.3	24	7.6
7	5.9	5.9	5.9	6.0	6.0	6.0	5.3	3.8	4.6	4.8	3.8	2.8	3.4	4.0	3.1	3.2	4.2	4.1	3.8	3.9	3.9	1.8	2.2	2.4	24	6.0
8	3.3	2.9	4.0	5.8	6.0	5.5	5.2	4.3	5.0	8.1	5.7	4.6	5.1	4.5	3.4	3.1	3.8	4.0	5.8	7.1	6.3	6.4	5.1	4.9	24	8.1
9	5.4	5.4	5.0	5.0	5.3	6.5	7.5	7.0	6.9	6.5	5.3	4.6	4.8	5.6	6.7	6.3	5.4	6.4	7.6	8.8	9.3	8.9	9.6	6.9	24	9.6
10	4.9	5.3	7.2	4.7	4.2	5.9	6.6	4.9	5.6	6.4	6.4	4.6	2.0	2.6	3.3	2.8	2.0	1.4	2.8	4.6	6.3	6.8	5.8	5.6	24	7.2
11	5.6	5.9	6.4	6.7	6.9	7.4	6.8	6.7	6.7	6.5	8.6	10.8	12.1	10.2	8.3	8.7	10.8	13.7	14.3	15.4	14.9	12.1	11.7	15.5	24	15.5
12	18.4	20.0	21.4	16.7	14.5	13.5	12.5	10.2	9.1	6.7	5.2	4.8	4.4	4.1	3.9	3.8	3.8	4.2	4.6	4.6	4.7	5.3	5.6	5.8	24	21.4
13	5.4	5.9	6.1	6.1	6.8	6.4	5.4	5.3	5.5	5.7	6.0	6.3	6.7	6.3	6.1	6.2	5.4	4.7	4.2	4.2	4.9	4.5	4.1	3.9	24	6.8
14	3.5	3.4	1.9	2.7	3.0	2.8	1.6	1.7	1.6	1.7	1.8	2.3	2.1	2.4	2.4	2.4	2.4	2.8	3.4	3.3	3.3	3.1	2.7	2.8	24	3.5
15	3.2	3.6	3.5	3.4	3.4	3.5	3.4	3.5	3.5	3.3	3.3	3.0	3.0	2.8	2.6	2.6	2.8	3.0	3.1	3.6	3.4	3.4	3.1	2.8	24	3.6
16	2.8	2.9	3.0	3.2	3.3	3.3	3.5	3.7	3.7	3.9	4.1	4.3	AZ	4.0	3.9	3.9	3.7	4.0	4.0	3.7	3.7	3.9	4.1	4.4	23	4.4
17	4.6	4.5	4.5	4.4	4.3	4.5	4.3	4.4	4.4	4.4	4.4	4.3	3.8	3.7	3.8	4.1	4.1	4.1	5.4	4.8	4.1	4.2	4.1	4.4	24	5.4
18	4.5	4.5	4.8	4.8	4.5	4.5	5.0	4.8	3.7	3.2	2.8	2.8	2.8	2.8	2.9	3.1	3.0	3.4	5.5	6.0	6.6	6.9	5.7	4.7	24	6.9
19	5.3	4.8	4.6	4.3	3.8	3.6	3.7	3.7	3.8	3.5	3.5	3.7	3.5	3.2	3.2	3.7	4.5	4.6	4.1	4.9	8.0	5.9	5.8	5.9	24	8.0
20	6.2	6.3	6.2	6.2	6.6	7.4	7.4	7.8	8.0	6.8	6.3	5.7	5.7	5.6	5.3	5.0	4.9	6.3	8.1	9.6	10.3	10.7	9.9	9.7	24	10.7
21	9.6	10.1	9.8	10.1	10.3	10.8	11.3	12.4	16.1	13.2	14.3	13.3	11.8	9.5	7.6	6.8	5.0	4.6	4.8	5.9	7.2	7.4	6.0	4.7	24	16.1
22	3.9	2.5	2.1	1.6	1.8	2.3	2.7	2.6	2.5	1.8	3.1	3.9	4.4	3.3	3.2	2.8	4.0	7.8	8.1	5.9	5.2	5.3	4.9	5.0	24	8.1
23	4.4	4.1	4.6	4.2	4.6	4.6	4.5	4.7	4.3	4.0	4.1	3.9	3.8	3.8	3.7	3.3	3.3	3.2	3.1	3.3	3.5	3.8	3.3	3.1	24	4.7
24	3.0	2.9	2.8	2.7	2.8	2.8	2.9	2.8	2.8	2.4	2.5	2.7	2.4	2.2	2.2	2.2	1.9	2.0	2.7	4.1	3.4	3.1	2.9	2.9	24	4.1
25	3.0	2.8	2.3	2.1	2.1	2.2	2.4	3.4	2.6	2.7	2.8	2.9	2.8	2.9	2.8	2.8	3.1	10.5	6.5	22.4	18.4	6.6	4.1	3.3	24	22.4
26	3.0	2.9	2.8	2.8	2.8	2.9	3.1	3.5	3.4	3.5	3.6	3.7	4.4	4.6	4.6	5.2	4.8	5.0	6.3	6.3	9.8	6.9	6.9	7.7	24	9.8
27	13.2	12.9	12.9	13.1	13.1	12.7	11.3	13.0	13.8	14.5	14.4	14.0	13.6	13.6	11.8	11.7	12.2	14.8	16.1	16.3	12.9	14.2	16.0	14.0	24	16.3
28	12.2	11.5	11.2	10.7	10.5	11.1	13.6	18.6	18.6	15.9	14.7	11.1	7.5	4.6	3.4	3.5	3.7	4.5	5.9	5.0	7.0	7.4	9.7	8.5	24	18.6
29	8.9	8.6	8.2	7.3	6.9	6.7	7.1	6.7	6.1	5.9	7.3	6.7	5.5	6.0	5.7	5.0	3.7	3.8	3.5	3.3	3.6	4.1	4.6	4.6	24	8.9
30	4.9	5.0	4.9	5.3	5.4	7.0	7.6	6.1	5.5	AZ	4.5	4.2	4.6	4.5	5.3	5.5	6.2	6.7	6.7	6.2	7.0	6.2	6.0	5.9	23	7.6
31	6.7	4.8	3.4	3.5	3.6	4.5	4.3	4.4	3.3	3.0	3.5	4.1	4.2	4.6	4.6	4.7	4.3	4.9	5.1	9.3	14.6	25.6	19.1	8.9	24	25.6
NO.:	31	31	31	31	31	31	31	31	31	29	31	31	30	31	31	31	31	31	31	31	31	31	31	31		
MAX:	18.4	20.0	21.4	16.7	14.5	13.5	13.6	18.6	18.6	15.9	14.7	14.0	13.6	13.6	11.8	11.7	12.2	14.8	16.1	22.4	18.4	25.6	19.1	15.5		
AVG:	6.05	5.98	5.98	5.80	5.80	5.81	5.85	5.89	5.86	5.66	5.53	5.27	5.09	4.80	4.62	4.52	4.56	5.35	5.83	6.94	7.13	6.86	6.53	6.01		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 5.74 MONTHLY MAX: 25.6

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JANUARY 2023

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

DAY	HOUR 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	12.0	9.0	8.2	7.0	6.1	6.9	8.3	8.8	7.7	6.4	5.6	4.8	5.1	4.8	4.9	4.9	6.5	6.9	7.8	8.9	10.4	10.8	10.9	9.6	24	12.0
2	9.2	9.9	10.5	11.1	11.3	11.5	11.5	11.8	12.1	9.3	8.4	5.8	5.0	3.0	3.3	3.5	5.1	6.4	5.4	5.4	5.3	6.1	6.1	6.6	24	12.1
3	7.1	8.2	4.8	5.8	7.7	7.1	3.9	3.4	2.6	3.3	3.0	3.6	3.7	3.7	4.3	4.8	5.2	5.3	6.7	6.6	7.1	7.2	6.7	5.9	24	8.2
4	5.0	4.6	4.3	4.0	2.9	2.7	2.8	2.8	2.6	2.4	2.0	1.8	1.7	1.7	1.4	1.1	1.5	1.9	2.5	3.2	3.2	3.3	3.3	3.3	24	5.0
5	3.3	3.9	3.4	3.3	3.2	3.2	3.0	3.0	3.0	2.8	2.4	1.7	1.5	1.5	1.6	2.0	2.1	2.4	2.0	2.5	2.8	2.5	2.7	2.8	24	3.9
6	2.8	2.8	2.9	3.2	3.2	3.6	6.1	5.1	9.0	10.4	3.5	3.4	2.7	2.6	2.2	1.7	2.2	5.1	5.0	3.6	3.7	5.0	4.2	3.0	24	10.4
7	3.2	3.3	3.9	4.2	4.8	5.5	6.2	6.1	5.8	5.6	5.5	5.8	5.6	6.1	6.5	7.0	7.5	8.5	8.1	8.3	9.7	11.4	23.5	24.4	24	24.4
8	18.1	17.7	14.2	19.3	11.5	8.5	8.9	6.7	5.6	7.8	9.3	8.9	11.4	11.3	9.1	9.6	9.0	12.2	11.6	9.9	11.6	11.2	11.7	27.0	24	27.0
9	33.2	18.2	19.2	17.7	18.7	18.9	19.1	16.5	14.8	12.0	12.0	12.1	13.5	10.5	6.3	5.7	5.0	6.3	6.8	9.4	9.7	11.9	10.5	10.6	24	33.2
10	10.4	9.4	10.5	10.9	9.4	7.7	7.7	7.5	6.4	5.9	6.2	6.8	8.6	9.6	9.2	11.2	10.5	9.7	11.4	9.9	8.7	7.6	8.0	8.2	24	11.4
11	8.5	8.3	8.7	9.5	10.8	11.6	11.7	11.2	11.6	11.7	12.0	11.9	12.1	12.6	12.2	12.2	11.8	10.7	10.7	11.0	11.4	10.0	7.7	6.1	24	12.6
12	5.7	5.3	5.1	5.5	5.9	6.2	6.5	7.1	8.1	AZ	16.9	17.3	14.9	23.0	12.0	6.3	5.0	9.6	8.3	11.4	14.7	13.3	12.5	11.9	23	23.0
13	9.3	7.7	5.7	5.0	5.2	5.4	5.4	7.2	8.1	6.1	6.3	6.5	6.2	5.0	5.8	4.6	4.2	4.7	5.7	5.2	5.4	4.9	5.0	4.9	24	9.3
14	4.9	5.4	6.1	6.3	6.3	7.7	8.0	9.5	12.1	12.4	11.2	11.3	12.6	11.0	10.0	9.0	8.6	10.7	14.6	18.5	20.7	22.3	18.9	18.7	24	22.3
15	20.6	45.8	15.0	11.4	12.7	11.9	10.9	9.5	8.1	7.0	6.3	5.4	5.0	4.5	4.5	4.1	5.0	32.7	47.6	16.1	6.3	5.2	4.6	4.7	24	47.6
16	5.0	6.3	7.2	7.2	7.0	5.4	4.6	4.6	4.3	4.3	4.3	4.1	4.1	4.0	3.7	3.9	3.7	3.7	4.0	3.7	3.7	3.8	4.1	4.6	24	7.2
17	5.3	5.0	6.3	7.6	8.2	8.3	8.7	8.9	9.6	10.5	11.0	11.6	12.9	13.5	13.3	13.2	13.1	12.6	16.8	15.7	14.6	13.7	12.0	12.3	24	16.8
18	21.7	18.5	20.8	19.2	16.3	15.3	13.6	14.0	12.6	9.8	8.1	7.5	7.3	6.0	6.3	6.7	6.9	5.3	4.3	4.1	3.6	3.7	3.7	4.1	24	21.7
19	4.5	5.0	5.3	5.4	5.0	5.2	5.6	5.4	6.0	6.2	5.5	3.9	2.8	2.4	2.4	2.6	2.5	2.3	2.4	2.5	2.8	2.8	2.8	2.9	24	6.2
20	3.2	3.5	3.5	3.4	3.8	3.7	4.0	4.2	4.9	8.8	5.1	5.1	5.0	4.3	4.1	4.9	5.8	5.2	5.8	6.4	6.8	8.0	8.9	11.7	24	11.7
21	11.0	9.5	8.3	8.9	9.8	10.5	9.3	9.7	8.3	7.5	6.5	5.4	5.1	4.6	4.5	4.3	4.1	4.9	6.2	5.1	5.2	5.9	8.4	6.9	24	11.0
22	6.8	6.2	6.0	5.4	7.2	7.5	7.1	6.0	6.3	7.9	7.7	7.0	5.9	5.7	5.9	6.4	7.7	7.6	10.1	14.0	11.6	10.0	10.7	12.4	24	14.0
23	12.8	13.1	12.7	11.6	10.2	9.6	8.8	9.2	9.1	8.7	6.9	5.7	5.3	5.3	4.9	5.1	5.1	6.0	5.9	6.5	7.9	7.2	8.3	10.3	24	13.1
24	10.9	10.3	10.5	9.1	9.0	8.9	9.4	8.1	7.2	7.2	6.7	6.4	6.4	6.8	6.4	6.7	6.6	7.4	7.5	6.9	6.3	5.9	5.6	5.0	24	10.9
25	4.7	4.6	3.3	1.1	1.1	.8	.2	.4	1.1	1.7	1.6	1.7	1.5	2.8	4.4	5.4	5.6	5.9	5.8	6.5	10.3	10.3	6.9	5.5	24	10.3
26	6.7	8.7	14.6	17.3	16.6	14.8	14.6	10.8	5.9	7.1	6.3	5.7	5.5	4.9	3.7	3.4	3.1	3.3	3.3	3.3	6.3	5.6	4.2	4.6	24	17.3
27	4.4	3.9	4.1	3.9	3.7	3.5	3.8	4.1	4.1	AZ	3.4	3.3	2.9	2.6	1.9	1.7	2.0	2.3	2.4	2.4	2.5	2.8	2.8	3.0	23	4.4
28	2.8	2.8	3.0	3.1	3.2	3.5	3.9	4.1	4.6	5.3	5.3	3.6	2.9	2.3	2.3	2.7	7.2	46.8	6.0	4.4	3.6	3.7	4.9	5.6	24	46.8
29	6.3	7.2	7.2	7.4	6.7	5.6	4.6	4.5	3.5	3.7	5.0	4.7	4.4	4.3	4.8	5.0	4.8	4.7	5.0	6.7	7.2	6.1	4.4	9.4	24	9.4
30	11.6	9.3	5.5	5.1	5.9	8.1	12.3	14.2	11.8	11.5	9.1	7.7	6.4	5.9	7.3	11.6	13.1	13.5	13.1	10.5	11.9	11.3	8.4	4.8	24	14.2
31	2.5	1.2	1.8	2.1	2.7	3.6	2.4	2.7	3.3	4.5	5.5	6.2	6.5	7.5	6.0	6.2	6.0	7.5	8.0	7.5	8.5	8.5	7.5	6.9	24	8.5
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:	33.2	45.8	20.8	19.3	18.7	18.9	19.1	16.5	14.8	12.4	16.9	17.3	14.9	23.0	13.3	13.2	13.1	46.8	47.6	18.5	20.7	22.3	23.5	27.0		
AVG:	8.82	8.86	7.83	7.81	7.62	7.51	7.51	7.33	7.10	7.17	6.73	6.35	6.27	6.25	5.65	5.73	6.02	8.78	8.41	7.62	7.85	7.81	7.74	8.31		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 7.38 MONTHLY MAX: 47.6

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: FEBRUARY 2023

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

DAY	HOUR 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	6.4	5.9	6.8	7.6	7.6	7.4	7.6	7.7	7.6	8.5	9.0	9.3	10.7	11.0	10.6	11.1	12.2	14.5	17.1	17.2	15.6	14.7	14.3	12.9	24	17.2
2	12.6	14.7	14.6	12.7	11.8	11.2	11.1	11.5	13.9	16.0	16.3	17.7	19.9	20.7	21.1	22.6	28.5	28.2	26.0	26.2	25.9	28.3	25.7	22.1	24	28.5
3	21.0	20.2	16.0	12.9	12.5	12.8	12.2	11.4	11.3	10.8	9.8	11.1	10.5	12.0	AZ	12.9	13.4	13.1	19.3	21.5	24.0	24.2	23.3	20.5	23	24.2
4	20.2	21.3	19.2	18.6	17.5	16.8	14.0	12.6	12.4	10.9	9.1	7.2	6.4	5.3	4.7	4.1	3.7	4.0	5.3	5.9	4.2	3.8	4.1	4.3	24	21.3
5	4.1	4.2	4.5	4.4	3.9	3.6	3.9	4.0	4.0	5.4	5.5	6.3	6.7	7.0	6.7	6.7	6.6	6.7	7.6	10.5	14.9	17.8	18.4	14.9	24	18.4
6	13.9	12.3	12.9	14.6	14.7	10.8	10.4	11.0	8.5	6.7	7.1	8.1	7.5	7.2	6.7	6.5	6.4	6.3	7.2	7.9	7.9	7.6	8.4	8.8	24	14.7
7	9.1	9.7	10.6	11.2	11.0	11.2	12.0	11.6	9.3	7.9	6.5	5.5	5.0	5.0	5.1	4.9	5.2	5.3	7.0	11.6	11.8	12.1	13.1	9.6	24	13.1
8	10.6	10.7	11.2	10.9	10.5	9.2	9.6	10.2	11.7	11.1	9.2	8.6	7.3	5.9	6.7	7.1	7.5	7.9	8.6	7.5	5.3	3.7	3.5	2.2	24	11.7
9	1.4	2.7	3.0	3.7	4.0	3.4	3.2	3.2	2.7	2.0	1.7	1.5	1.8	2.0	1.5	1.6	1.8	2.1	2.6	3.0	4.0	4.8	5.5	3.7	24	5.5
10	4.0	4.5	3.5	3.2	3.3	3.0	3.7	3.3	3.2	3.3	3.3	3.3	3.4	3.8	3.9	4.9	10.9	14.9	15.3	16.1	14.9	16.7	15.3	15.3	24	16.7
11	18.3	18.4	16.7	16.6	14.8	14.6	14.6	15.2	15.8	18.0	20.1	19.1	19.2	18.5	14.1	12.2	9.7	7.6	7.4	6.2	5.6	4.1	3.7	3.7	24	20.1
12	3.5	3.7	3.7	3.6	3.7	4.1	4.8	5.0	5.0	4.7	4.6	3.8	3.3	3.5	3.1	2.8	2.7	5.5	11.5	24.8	142.6	81.6	7.3	6.3	24	142.6
13	5.3	4.0	3.8	3.7	3.5	3.5	3.8	4.2	4.7	5.0	5.2	8.9	37.6	19.9	30.2	20.2	10.6	10.9	15.5	22.0	16.8	9.6	7.8	7.7	24	37.6
14	7.6	6.3	6.2	6.5	6.4	5.5	5.3	5.7	5.6	5.4	5.5	6.3	5.0	5.4	5.0	4.9	5.8	5.2	6.3	5.0	3.2	2.4	2.3	3.4	24	7.6
15	4.1	5.1	5.9	6.8	7.1	8.3	9.6	10.3	10.2	10.5	11.0	11.3	11.0	11.7	11.5	11.9	12.1	12.4	12.3	10.6	8.8	6.2	4.3	6.2	24	12.4
16	7.2	8.4	8.8	8.4	7.7	9.8	9.9	9.9	9.9	9.9	AZ	8.8	4.6	4.6	5.5	6.8	7.2	6.1	4.5	3.3	3.2	3.9	4.6	4.6	23	9.9
17	5.3	4.7	4.3	4.1	3.9	3.9	4.2	4.2	4.1	4.1	4.1	3.0	3.1	3.7	3.5	2.8	2.0	1.9	2.5	19.6	6.6	7.1	7.6	7.4	24	19.6
18	6.7	5.8	4.0	3.7	4.0	4.1	4.3	4.1	3.7	3.3	2.8	2.7	2.9	2.6	2.4	2.8	3.3	3.5	3.5	3.9	4.1	3.7	3.0	2.7	24	6.7
19	2.7	2.4	2.4	2.4	2.4	2.5	2.8	2.7	2.8	3.5	4.2	4.3	4.1	3.9	4.1	4.1	4.6	7.8	5.8	5.1	4.7	4.8	6.3	10.8	24	10.8
20	14.4	20.7	12.5	9.8	10.1	9.3	8.6	8.1	7.9	7.5	6.9	6.7	6.7	6.9	6.8	6.5	6.9	8.8	7.6	6.5	6.7	6.3	6.4	7.0	24	20.7
21	8.1	7.7	7.2	8.1	7.9	8.5	8.9	12.7	16.0	10.0	9.7	9.2	8.3	8.4	7.8	7.9	10.3	9.6	9.4	9.7	11.3	11.2	9.0	8.8	24	16.0
22	9.0	9.7	10.0	9.4	7.8	7.7	7.9	7.7	9.2	9.9	10.6	10.4	10.1	9.9	10.5	10.4	3.4	2.9	2.8	2.9	3.3	3.6	4.1	4.8	24	10.6
23	5.9	6.5	6.5	5.9	7.2	8.7	10.2	12.0	13.6	14.4	15.2	15.5	15.0	14.7	13.4	10.8	5.8	5.0	5.4	5.8	6.0	5.8	4.5	3.9	24	15.5
24	4.3	4.0	3.9	3.7	4.6	5.6	6.1	5.0	4.0	3.4	3.4	3.6	3.8	4.1	3.7	3.7	3.8	4.1	4.4	4.3	4.2	4.3	4.2	4.9	24	6.1
25	6.0	6.5	6.7	7.8	6.6	7.2	7.5	5.5	5.3	6.7	7.5	7.3	10.8	7.6	5.2	4.2	4.2	3.7	4.3	6.7	8.6	10.8	8.3	8.1	24	10.8
26	8.6	10.3	9.1	8.6	9.6	11.2	12.3	10.2	9.1	8.5	5.4	3.8	3.3	3.9	4.0	4.4	5.0	5.4	6.1	27.8	23.3	8.1	8.7	10.0	24	27.8
27	11.0	13.3	15.3	13.5	10.1	9.2	9.3	8.8	8.4	14.6	25.8	37.9	47.8	47.7	44.3	40.9	36.5	33.6	32.0	26.7	22.9	21.9	21.0	20.7	24	47.8
28	20.3	20.4	20.3	19.9	20.4	20.4	21.8	23.7	21.2	12.6	8.0	8.4	8.8	6.8	7.0	9.3	11.3	12.8	14.8	17.3	18.5	24.0	23.5	23.2	24	24.0
29																									0	
30																									0	
31																									0	
NO.:	28	28	28	28	28	28	28	28	28	28	27	28	28	28	27	28	28	28	28	28	28	28	28	28		
MAX:	21.0	21.3	20.3	19.9	20.4	20.4	21.8	23.7	21.2	18.0	25.8	37.9	47.8	47.7	44.3	40.9	36.5	33.6	32.0	27.8	142.6	81.6	25.7	23.2		
AVG:	8.99	9.43	8.91	8.65	8.38	8.34	8.56	8.63	8.61	8.38	8.43	8.91	10.16	9.42	9.23	8.89	8.62	8.92	9.72	11.99	15.32	12.61	9.58	9.23		

MONTHLY OBSERVATIONS: 670 MONTHLY MEAN: 9.50 MONTHLY MAX: 142.6

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MARCH 2023

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

DAY	HOUR 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	22.2	19.8	17.1	16.1	15.8	16.4	17.1	16.5	16.2	16.4	15.1	14.2	14.6	14.2	14.4	14.1	14.3	14.5	8.0	10.0	9.1	6.3	6.2	5.8	24	22.2
2	4.5	4.6	4.6	3.9	3.6	2.8	2.6	2.6	2.7	2.0	1.7	2.4	2.7	3.2	3.7	3.3	3.3	3.8	4.5	4.8	4.5	5.0	5.0	5.3	24	5.3
3	6.9	8.1	8.8	9.4	9.9	9.9	9.9	6.9	4.4	2.9	AZ	.3	.8	.6	.5	.5	.7	1.3	1.9	2.0	1.7	1.9	2.0	1.4	23	9.9
4	1.4	1.1	.7	.7	.7	.7	1.1	1.1	1.1	1.1	1.2	1.4	1.9	2.5	2.8	3.5	4.1	3.4	5.9	6.7	6.2	9.1	8.3	8.0	24	9.1
5	8.9	8.5	7.6	6.5	6.1	5.9	6.0	5.0	4.4	3.5	3.1	3.1	3.2	3.1	3.1	3.3	3.6	3.5	4.7	106.0	79.9	133.7	9.5	6.7	24	133.7
6	7.2	7.5	9.2	15.2	21.1	22.1	23.0	20.5	19.2	19.2	18.9	14.4	12.9	13.3	13.1	14.4	14.1	12.7	12.4	13.3	14.7	15.2	15.5	16.5	24	23.0
7	17.2	17.7	17.6	17.0	16.7	15.0	12.7	12.1	11.3	11.7	11.7	11.0	10.6	10.1	9.5	9.0	8.9	8.2	8.0	7.9	7.9	8.3	9.1	9.9	24	17.7
8	9.8	9.7	9.8	9.2	9.1	8.3	8.5	8.7	9.7	8.6	6.2	6.0	7.1	7.7	9.2	9.4	10.6	10.9	9.2	8.1	7.4	6.7	6.8	6.3	24	10.9
9	6.3	6.9	7.5	9.3	10.2	10.9	8.7	9.1	9.6	11.3	13.9	15.4	16.0	15.5	14.5	15.2	15.5	16.9	18.4	16.3	14.5	7.5	3.5	2.5	24	18.4
10	3.9	4.5	4.5	5.1	5.4	5.0	4.9	4.7	5.0	5.3	5.5	6.2	5.7	6.3	6.3	5.9	6.1	6.1	5.9	5.9	6.8	7.1	6.6	7.2	24	7.2
11	6.7	7.2	7.0	7.6	7.9	7.4	6.9	6.6	6.5	6.1	5.7	5.8	5.4	5.5	5.4	5.4	6.4	7.9	7.5	8.4	8.4	8.9	8.9	10.4	24	10.4
12	10.4	11.5	12.3	10.9	9.6	5.4	4.3	4.1	3.4	3.3	4.0	3.9	3.8	5.0	5.5	5.3	4.1	4.1	4.7	4.8	6.4	6.4	6.0	5.2	24	12.3
13	4.4	4.2	4.0	4.4	4.3	4.9	4.5	4.2	4.3	4.6	4.9	5.2	6.3	5.8	5.4	5.2	4.9	5.1	4.6	4.8	4.8	5.2	5.4	5.4	24	6.3
14	6.3	7.4	8.0	8.4	7.8	8.6	9.0	8.7	9.1	8.0	7.6	7.6	7.8	8.4	8.3	8.5	8.3	8.4	9.1	10.1	12.2	12.6	12.1	12.9	24	12.9
15	15.0	15.0	15.0	13.1	13.0	12.6	11.7	10.8	7.2	6.0	6.6	5.7	5.0	5.3	6.4	6.6	7.4	9.1	6.2	5.6	7.5	7.7	9.7	12.0	24	15.0
16	8.9	9.8	8.9	7.5	7.4	7.7	8.7	9.4	9.9	9.4	7.8	7.3	6.1	6.4	9.9	8.7	14.7	31.8	17.8	14.0	11.7	8.8	8.6	7.0	24	31.8
17	6.3	5.4	4.7	1.0	.7	1.1	2.4	3.0	AZ	3.1	3.5	3.8	4.2	3.9	3.8	3.5	3.3	3.2	3.3	3.7	4.1	4.2	3.6	3.0	23	6.3
18	3.0	3.3	3.3	3.3	3.7	3.7	3.7	3.8	3.5	3.7	4.2	3.9	4.1	4.0	4.0	3.5	3.3	3.3	3.5	3.3	4.0	3.4	3.4	3.7	24	4.2
19	3.8	4.2	4.6	5.4	5.7	4.9	4.2	4.4	4.2	4.2	4.2	4.2	4.2	4.1	4.2	4.3	4.6	5.1	5.0	5.3	5.0	5.0	5.5	5.4	24	5.7
20	4.7	4.5	4.6	5.0	5.4	5.7	6.2	5.8	4.9	5.0	5.5	5.4	5.6	4.9	5.4	6.8	5.3	5.9	5.6	5.8	6.7	6.1	5.0	5.4	24	6.8
21	5.9	7.0	7.5	6.9	8.0	11.0	8.0	7.5	7.7	13.3	14.6	11.1	9.4	9.6	7.7	7.0	7.3	8.1	9.5	10.3	11.8	25.9	35.0	32.6	24	35.0
22	26.7	24.4	21.3	20.0	16.6	13.1	10.9	11.2	12.8	12.5	12.0	10.0	8.9	8.5	8.5	7.8	7.7	7.9	8.3	8.5	7.7	6.6	6.1	5.9	24	26.7
23	5.8	5.4	5.2	5.3	5.2	5.2	5.9	7.4	8.3	8.8	8.1	7.1	7.1	7.7	7.5	7.4	6.2	6.4	6.5	6.9	6.8	7.2	9.7	10.5	24	10.5
24	11.2	11.6	11.4	10.7	10.2	9.8	9.9	9.1	5.5	3.1	3.4	5.5	7.2	7.5	6.6	6.1	7.5	8.2	9.6	2.0	1.2	1.3	2.1	2.0	24	11.6
25	2.3	2.9	3.5	4.1	4.1	4.1	4.5	5.5	6.4	5.4	5.2	4.6	5.1	5.2	5.2	4.8	4.8	5.1	5.4	6.9	7.6	7.3	5.9	5.5	24	7.6
26	5.4	5.4	5.6	6.1	5.6	6.2	6.0	5.8	5.7	5.4	5.3	5.4	5.8	6.2	5.7	6.0	6.1	6.9	8.5	9.8	9.6	8.6	7.9	7.5	24	9.8
27	7.1	6.7	5.5	4.6	4.2	4.2	4.6	4.6	5.0	5.2	5.5	5.6	6.3	6.6	6.6	6.2	5.3	6.3	6.7	8.9	7.4	7.2	8.1	8.3	24	8.9
28	8.8	10.1	11.2	11.9	11.7	11.3	11.7	10.5	10.0	11.4	10.2	7.6	6.7	6.5	6.4	6.3	5.8	5.4	9.3	7.2	7.5	6.6	7.2	7.2	24	11.9
29	6.9	7.2	7.9	8.7	9.9	11.6	12.7	11.5	7.0	6.0	6.0	5.8	5.6	5.5	5.3	5.3	5.4	5.1	5.4	8.4	9.0	10.2	9.4	12.3	24	12.7
30	13.7	19.9	12.9	10.9	11.9	13.4	13.6	9.8	AZ	5.9	6.3	7.2	8.1	6.9	10.3	11.9	10.4	8.7	8.1	12.7	14.8	16.3	16.5	15.3	23	19.9
31	12.0	13.2	11.7	11.3	11.1	9.6	10.5	10.0	9.8	10.9	10.1	10.5	10.0	10.4	10.2	10.6	10.3	9.8	8.9	9.8	9.7	11.6	10.5	11.1	24	13.2
NO.:	31	31	31	31	31	31	31	31	29	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	26.7	24.4	21.3	20.0	21.1	22.1	23.0	20.5	19.2	19.2	18.9	15.4	16.0	15.5	14.5	15.2	15.5	31.8	18.4	106.0	79.9	133.7	35.0	32.6		
AVG:	8.50	8.86	8.50	8.37	8.47	8.34	8.21	7.77	7.41	7.20	7.27	6.70	6.72	6.79	6.95	6.96	7.11	7.84	7.50	10.91	10.21	12.19	8.36	8.33		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 8.15 MONTHLY MAX: 133.7

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: APRIL 2023

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

DAY	HOUR 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	10.5	8.3	8.5	9.1	10.5	11.9	12.3	12.6	12.4	10.8	5.6	3.2	2.8	2.6	2.4	2.3	2.4	2.8	3.4	4.3	5.3	5.0	7.2	5.5	24	12.6
2	6.7	11.4	11.1	8.7	10.1	12.9	7.7	4.6	4.0	3.4	3.4	3.6	3.3	3.5	4.0	4.2	3.3	4.4	4.9	5.4	5.2	5.2	6.3	6.4	24	12.9
3	6.4	6.8	8.7	9.7	9.0	7.9	7.5	7.2	7.4	7.5	7.0	7.9	7.8	8.6	9.7	10.3	10.7	10.9	12.1	13.4	13.6	14.0	14.6	15.5	24	15.5
4	16.9	16.5	16.1	16.0	15.9	16.3	15.9	15.7	16.7	17.1	16.6	14.1	11.3	9.5	8.9	8.8	9.6	9.9	8.4	9.0	10.1	10.8	11.4	11.8	24	17.1
5	11.5	11.0	10.7	10.2	9.6	9.7	9.8	9.5	10.5	11.9	12.4	13.4	9.3	4.6	5.2	5.1	5.9	5.7	5.7	6.1	5.9	5.8	5.6	6.6	24	13.4
6	5.9	4.5	4.6	4.6	3.7	3.2	3.8	3.8	4.0	4.0	3.6	3.3	3.3	2.8	2.9	3.4	3.4	3.8	4.4	4.6	4.4	4.3	4.3	4.5	24	5.9
7	4.3	4.3	4.2	4.2	4.0	4.1	4.3	4.6	4.4	4.5	4.7	4.6	4.6	4.7	5.0	4.6	4.5	4.7	5.0	5.0	4.3	4.3	4.1	4.2	24	5.0
8	4.3	4.3	4.2	4.3	4.3	4.3	4.1	4.1	4.6	4.6	4.1	4.1	4.1	4.6	4.6	4.4	4.3	4.3	4.6	4.2	3.7	3.3	4.6	4.5	24	4.6
9	3.9	3.8	4.1	3.8	3.3	3.6	3.4	3.0	3.3	3.2	2.4	2.5	2.7	2.8	2.7	2.8	2.9	3.3	3.4	4.1	4.8	5.1	5.2	5.4	24	5.4
10	5.4	5.3	5.0	4.1	4.5	4.7	4.9	5.1	5.4	5.4	5.9	5.5	5.0	5.3	5.4	5.6	6.5	6.8	5.8	9.2	7.5	8.3	11.0	9.0	24	11.0
11	7.9	8.1	8.5	9.8	9.3	9.7	10.5	10.0	7.2	8.0	8.3	6.8	6.0	5.1	5.0	5.1	5.1	7.0	5.9	7.6	8.1	8.1	8.7	8.6	24	10.5
12	8.5	10.1	9.3	9.8	11.7	13.5	19.8	14.8	10.0	7.7	5.7	5.6	5.9	5.8	6.0	6.7	6.8	7.1	10.0	10.1	12.3	13.7	13.2	12.6	24	19.8
13	12.4	15.4	21.1	21.3	21.5	21.9	20.7	15.6	13.7	14.9	13.3	10.8	9.2	7.2	8.5	8.9	6.3	5.6	6.2	6.3	5.5	5.4	5.6	4.2	24	21.9
14	4.0	3.7	4.1	4.7	5.3	5.3	5.6	6.3	5.8	5.4	5.3	5.3	5.0	8.6	8.5	6.7	4.3	4.6	4.8	5.9	6.5	7.2	5.6	5.3	24	8.6
15	5.6	7.3	8.0	7.3	7.6	8.3	8.5	8.8	8.6	7.7	5.7	4.9	5.3	5.6	4.8	4.8	5.5	5.9	6.2	6.0	5.3	4.5	4.0	4.1	24	8.8
16	5.1	7.2	5.6	3.3	2.7	2.4	2.1	2.4	2.8	3.2	3.2	3.2	3.2	3.3	3.4	3.2	3.1	3.3	3.5	3.7	4.0	4.1	4.0	4.2	24	7.2
17	4.3	4.6	4.8	4.6	4.6	4.6	4.7	4.3	4.4	4.3	3.7	3.4	3.4	3.8	4.4	5.2	5.9	6.6	6.3	6.9	7.6	7.7	8.4	8.7	24	8.7
18	8.3	7.7	7.2	7.3	7.6	8.0	7.8	7.8	8.4	10.2	9.6	9.6	10.1	10.1	10.3	9.7	10.0	10.3	11.3	10.4	11.6	12.5	12.5	12.3	24	12.5
19	12.0	12.8	12.8	12.2	11.7	12.3	12.9	13.8	14.8	15.5	17.6	BL	12.2	12.0	11.3	10.0	9.6	9.9	14.6	12.7	13.7	12.6	14.7	18.9	23	18.9
20	18.9	15.2	12.0	13.2	14.0	14.1	19.6	12.9	12.2	11.9	10.9	10.0	9.0	8.7	9.6	9.7	8.9	8.8	9.8	11.7	13.2	12.0	5.3	3.8	24	19.6
21	3.6	4.3	4.6	4.1	3.7	3.7	3.7	AZ	1.9	1.6	2.4	3.3	7.0	3.2	1.1	3.6	4.1	3.9	3.7	5.6	5.4	5.9	7.4	7.2	23	7.4
22	5.8	5.8	5.1	5.2	6.0	6.3	5.4	4.3	4.7	5.2	4.6	4.8	5.1	4.9	4.8	4.5	4.3	4.7	5.1	6.1	6.3	6.4	6.0	4.9	24	6.4
23	4.2	3.3	3.3	3.4	3.7	3.8	3.9	4.1	4.3	4.8	5.6	6.7	6.7	7.0	7.4	6.9	9.3	7.2	6.6	7.2	7.6	8.2	8.1	8.2	24	9.3
24	8.9	9.7	13.4	9.9	10.4	10.8	11.2	10.5	10.0	9.3	8.8	9.1	9.1	9.0	8.3	8.9	8.9	9.5	9.6	10.3	11.4	10.6	10.3	9.7	24	13.4
25	10.3	10.0	10.6	11.6	12.6	12.4	12.8	12.3	11.4	12.2	11.7	9.6	9.7	9.5	9.3	10.3	9.7	9.9	10.6	10.5	11.3	11.1	11.1	11.0	24	12.8
26	10.5	10.6	10.5	9.5	9.8	9.8	9.7	9.6	8.5	8.3	8.4	8.1	7.5	8.4	9.4	8.9	7.4	7.0	7.8	8.5	8.2	9.0	10.5	10.4	24	10.6
27	10.5	10.7	11.5	12.6	13.5	13.3	13.9	13.6	13.1	12.2	10.9	10.0	11.3	9.3	8.9	8.7	7.7	8.7	7.4	6.8	10.8	7.8	9.2	9.6	24	13.9
28	4.9	6.0	10.5	10.9	8.8	8.0	8.1	6.4	6.1	6.4	5.7	5.2	6.0	6.3	6.0	5.7	5.4	5.0	5.5	15.0	10.5	7.9	7.1	6.7	24	15.0
29	7.3	7.6	8.0	10.7	15.0	14.3	11.7	10.1	10.4	9.6	9.1	10.4	11.5	9.1	11.1	14.5	10.1	9.4	11.7	13.7	14.1	14.1	15.3	12.7	24	15.3
30	10.4	10.2	9.7	6.8	6.9	7.2	6.5	5.5	4.6	4.1	3.7	3.9	4.7	5.3	5.8	5.6	4.9	4.3	3.9	4.2	3.9	3.7	3.7	3.7	24	10.4
31																									0	
NO.:	30	30	30	30	30	30	30	29	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	18.9	16.5	21.1	21.3	21.5	21.9	20.7	15.7	16.7	17.1	17.6	14.1	12.2	12.0	11.3	14.5	10.7	10.9	14.6	15.0	14.1	14.1	15.3	18.9		
AVG:	7.97	8.22	8.59	8.43	8.71	8.94	9.09	8.39	7.85	7.83	7.33	6.65	6.74	6.37	6.49	6.64	6.36	6.51	6.94	7.82	8.07	7.95	8.17	8.01		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 7.67 MONTHLY MAX: 21.9

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MAY 2023

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

DAY	HOUR 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	3.5	3.7	3.7	3.7	3.7	3.8	3.9	4.2	4.4	4.3	4.3	4.1	4.2	4.4	4.2	4.3	4.3	4.1	4.3	4.7	5.7	6.2	5.9	5.8	24	6.2
2	6.1	5.6	5.5	5.4	5.4	5.4	5.5	5.0	4.8	5.0	4.5	4.6	4.4	3.9	3.9	3.9	3.5	3.6	4.7	5.8	5.5	10.4	11.2	4.6	24	11.2
3	4.5	4.6	4.6	4.9	5.2	5.9	6.3	5.9	5.6	5.6	5.5	5.7	6.6	6.4	6.2	6.6	6.3	6.4	6.1	7.4	8.0	8.9	9.7	11.0	24	11.0
4	17.4	21.5	13.4	10.0	11.0	10.2	12.6	8.6	7.3	5.9	6.1	6.6	6.6	7.0	6.9	7.0	7.0	7.0	9.1	10.5	8.8	19.6	19.2	12.9	24	21.5
5	9.0	8.4	8.8	10.0	8.5	8.4	8.1	7.5	7.4	7.2	7.2	8.9	9.8	10.3	10.8	11.1	11.7	11.7	12.4	11.4	11.7	12.2	11.8	11.6	24	12.4
6	11.5	13.7	13.7	13.9	14.1	14.3	13.2	13.3	14.8	15.9	13.6	14.1	13.8	12.8	12.3	12.5	12.8	13.0	13.6	14.0	14.9	14.8	16.1	18.4	24	18.4
7	15.0	12.5	11.5	10.3	9.6	8.2	7.0	6.1	6.4	6.7	6.8	7.3	7.2	8.2	8.2	8.9	9.0	9.5	10.2	10.5	10.1	9.8	8.4	8.9	24	15.0
8	9.9	9.0	9.3	9.7	10.5	11.5	12.3	12.8	13.2	14.4	16.1	14.9	14.7	13.5	12.2	11.8	12.5	13.8	16.5	17.6	16.9	16.9	17.8	17.3	24	17.8
9	18.0	18.6	8.7	6.5	7.2	8.0	12.6	15.3	14.5	13.9	12.1	12.7	13.6	12.5	11.3	10.7	10.7	11.1	13.0	15.7	17.0	17.3	17.4	17.0	24	18.6
10	17.1	17.3	18.1	17.7	16.9	16.8	16.9	13.9	13.1	12.2	11.6	12.0	11.6	11.6	11.6	20.5	13.5	10.6	9.5	10.5	13.8	8.6	7.4	7.6	24	20.5
11	7.8	8.2	9.0	9.3	10.0	10.5	11.9	11.9	AZ	11.1	9.8	9.6	10.1	10.6	11.3	7.2	6.8	5.8	5.6	6.3	7.0	6.7	5.8	5.7	23	11.9
12	6.6	6.7	7.3	8.4	8.6	9.4	9.0	9.0	8.6	9.0	8.7	10.1	8.4	7.9	8.3	7.8	7.8	7.8	9.4	8.2	7.3	7.3	6.8	7.2	24	10.1
13	7.4	7.7	8.1	8.0	8.1	7.6	8.0	7.2	8.7	10.4	11.0	12.4	13.3	13.5	12.6	11.8	11.1	11.0	11.1	11.8	12.8	12.8	12.0	12.2	24	13.5
14	12.7	13.6	14.0	15.5	15.1	13.9	13.0	11.1	10.1	10.9	11.3	11.5	11.7	11.6	11.7	11.5	11.0	11.3	11.1	10.5	11.0	11.3	12.4	12.9	24	15.5
15	13.1	12.8	13.2	13.3	13.9	13.8	13.2	12.1	11.6	11.1	10.8	11.6	11.5	11.5	12.0	12.3	12.2	13.1	13.4	14.6	15.8	18.3	16.6	15.4	24	18.3
16	14.8	16.6	25.4	16.9	13.7	11.8	9.4	7.3	6.3	5.6	5.7	5.9	6.3	5.8	7.0	6.3	5.0	4.5	5.6	5.0	5.1	3.9	4.3	7.0	24	25.4
17	9.9	11.1	9.7	8.7	8.4	9.5	10.5	10.6	9.4	8.0	7.5	8.8	9.2	10.4	10.3	11.1	10.0	10.0	8.4	8.3	7.9	8.2	8.6	8.0	24	11.1
18	8.4	8.9	9.8	9.8	9.5	9.6	11.4	12.2	12.2	11.5	9.4	8.1	6.9	6.6	6.7	6.9	7.4	7.0	7.1	8.0	9.6	9.2	8.1	8.4	24	12.2
19	8.1	8.7	8.8	9.9	9.8	9.4	10.7	10.1	10.7	10.9	10.3	10.3	11.5	10.9	10.8	10.5	10.5	9.0	9.8	10.6	11.8	11.7	12.4	14.1	24	14.1
20	15.1	14.4	14.5	14.9	14.6	10.4	5.6	14.3	19.9	35.9	46.5	45.1	39.6	35.0	37.6	31.1	32.3	37.9	32.6	28.8	29.5	31.5	31.0	30.3	24	46.5
21	27.6IF	25.2IF	23.6IF	22.7IF	21.8IF	19.6IF	18.5IF	18.7IF	18.9IF	19.6IF	20.8IF	22.7IF	24.4IF	26.6IF	26.5IF	29.1IF	28.3IF	28.3IF	28.5IF	31.9IF	33.7IF	35.0IF	35.6IF	33.9IF	24	35.6
22	33.2	31.9	31.2	30.6	29.7	29.7	27.5	26.9	27.8	29.8	31.5	30.7	30.8	30.2	29.2	28.4	26.2	26.2	28.4	28.8	29.4	28.5	30.1	30.3	24	33.2
23	28.2	24.4	19.0	15.6	15.5	16.3	16.7	16.7	15.7	15.1	12.8	13.7	15.3	13.4	11.3	9.4	7.6	9.8	11.4	12.9	14.5	15.0	16.7	17.0	24	28.2
24	19.1IF	24.2IF	27.1IF	26.1IF	22.8IF	23.3IF	23.3IF	25.2IF	25.6IF	24.5IF	24.0IF	23.5IF	22.5IF	22.0IF	21.6IF	21.6IF	20.6IF	20.8IF	20.9IF	21.4IF	21.7IF	22.8IF	23.4IF	24.2IF	24	27.1
25	22.8IF	22.7IF	22.0IF	22.8IF	23.3IF	21.1IF	22.4IF	23.4IF	23.3IF	23.3IF	24.0IF	24.4IF	24.5IF	26.0IF	26.9IF	27.3IF	27.2IF	25.4IF	25.7IF	26.3IF	26.8IF	29.0IF	28.3IF	26.8IF	24	29.0
26	24.6IF	24.7IF	23.9IF	22.0IF	20.8IF	19.3IF	16.8IF	16.1IF	15.4IF	15.6IF	16.4IF	16.2IF	15.3IF	15.1IF	13.3IF	12.1IF	11.7IF	11.6IF	11.9IF	12.1IF	11.7IF	10.8IF	9.1IF	7.6IF	24	24.7
27	7.6	7.6	8.1	8.2	8.3	8.1	AV	16.8	16.5	18.7	15.5	10.8	15.2	15.0	16.5	16.2	15.2	16.9	22.0	21.2	18.1	17.0	17.4	18.2	23	22.0
28	18.7IF	19.9IF	20.5IF	20.3IF	20.6IF	20.0IF	20.2IF	20.4IF	18.1IF	17.4IF	17.6IF	17.1IF	17.2IF	17.5IF	16.8IF	17.7IF	17.4IF	17.3IF	18.1IF	21.2IF	21.7IF	21.2IF	18.3IF	11.4IF	24	21.7
29	9.5	9.9	10.3	10.5	10.1	9.9	10.1	8.1	8.2	8.6	8.1	8.7	8.9	9.6	10.1	9.7	9.7	8.9	11.6	12.5	14.0	14.9	13.2	15.6	24	15.6
30	15.3	13.5	14.9	16.0	16.0	16.4	20.1	14.4	12.3	13.2	13.4	14.3	12.5	11.3	10.2	9.7	10.4	10.3	10.8	11.6	12.9	14.7	15.7	15.5	24	20.1
31	14.8	14.7	14.1	14.8	14.9	15.8	13.1	AZ	10.0	9.2	8.9	10.0	10.7	11.1	11.3	11.7	11.6	11.2	10.9	15.0	13.6	19.2	20.4	15.4	23	20.4
NO.:	31	31	31	31	31	31	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	33.2	31.9	31.2	30.6	29.7	29.7	27.5	26.9	27.8	35.9	46.5	45.1	39.6	35.0	37.6	31.1	32.3	37.9	32.6	31.9	33.7	35.0	35.6	33.9		
AVG:	14.11	14.27	13.93	13.43	13.15	12.84	12.99	12.84	12.69	13.24	13.28	13.43	13.49	13.30	13.21	13.12	12.62	12.74	13.35	14.04	14.46	15.28	15.20	14.59		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 13.57 MONTHLY MAX: 46.5

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JUNE 2023

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

DAY	HOUR 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	16.0	17.1	18.8	19.9	22.6	24.7	24.7	23.2	22.7	21.2	21.7	20.8	21.4	19.6	20.4	19.6	18.6	18.4	18.3	18.7	19.9	20.8	21.2	20.9	24	24.7
2	21.2IF	21.5IF	22.5IF	24.6IF	25.0IF	24.1IF	20.2IF	17.3IF	15.5IF	13.7IF	11.9IF	13.2IF	12.5IF	12.7IF	12.7IF	12.0IF	11.5IF	11.8IF	11.9IF	14.6IF	13.8IF	13.8IF	14.5IF	15.4IF	24	25.0
3	16.5IF	17.1IF	17.5IF	17.9IF	17.9IF	18.6IF	15.9IF	12.8IF	15.7IF	13.1IF	14.7IF	15.5IF	16.2IF	15.7IF	15.3IF	15.8IF	15.9IF	14.8IF	14.7IF	15.2IF	16.1IF	19.2IF	21.1IF	20.0IF	24	21.1
4	19.3	19.9	20.1	19.9	20.8	20.3	20.6	20.8	21.4	20.8	20.4	21.0	21.1	21.4	21.5	21.3	20.8	20.9	20.4	20.0	21.8	22.0	23.0	23.2	24	23.2
5	24.4IF	24.7IF	26.5IF	26.0IF	26.1IF	25.6IF	26.1IF	26.2IF	29.0IF	29.2IF	25.9IF	24.2IF	22.9IF	23.6IF	14.4IF	13.7IF	14.3IF	10.5IF	11.4IF	15.3IF	16.3IF	17.4IF	18.5IF	19.8IF	24	29.2
6	19.9IF	20.3IF	19.5IF	20.3IF	20.6IF	20.0IF	23.1IF	19.6IF	20.7IF	22.6IF	22.3IF	21.6IF	21.2IF	22.3IF	23.1IF	30.0IF	22.9IF	27.7IF	34.7IF	36.3IF	34.5IF	33.0IF	32.9IF	33.2IF	24	36.3
7	33.4IF	35.5IF	47.1IF	50.4IF	43.5IF	36.1IF	33.5IF	30.0IF	27.3IF	26.8IF	27.1IF	27.2IF	27.4IF	27.9IF	29.7IF	30.6IF	29.6IF	29.8IF	29.7IF	30.4IF	31.2IF	33.1IF	35.1IF	36.7IF	24	50.4
8	35.2	31.4	29.8	27.3	26.0	24.6	25.9	AZ	26.5	24.0	23.8	24.7	27.4	26.8	21.4	21.4	20.8	23.0	25.5	26.2	26.2	27.2	29.5	27.3	23	35.2
9	26.0IF	27.0IF	27.3IF	28.7IF	30.6IF	33.8IF	34.2IF	34.4IF	33.3IF	32.1IF	31.3IF	32.0IF	32.5IF	31.6IF	32.0IF	32.7IF	31.5IF	32.2IF	32.7IF	32.9IF	33.5IF	33.9IF	34.5IF	35.7IF	24	35.7
10	36.5	35.1	35.1	32.4	31.2	29.9	29.2	29.4	28.4	21.2	16.7	17.4	16.3	14.4	13.0	10.4	7.2	6.6	7.2	7.3	8.6	8.1	8.3	9.6	24	36.5
11	10.3	10.9	10.4	9.5	9.2	9.8	8.7	7.4	7.1	7.1	6.9	7.0	8.1	10.2	10.3	11.8	11.7	7.4	7.1	6.8	5.6	6.0	6.8	7.4	24	11.8
12	13.1	19.8	23.5	26.2	29.4	30.1	28.7	24.9	23.5	23.4	21.7	21.1	18.6	17.7	17.6	17.8	18.2	18.2	19.4	19.2	18.4	19.5	20.0	19.9	24	30.1
13	19.6	19.9	20.0	19.9	20.0	19.5	19.9	18.9	15.8	14.6	15.2	12.7	13.5	14.8	15.8	16.7	17.0	15.9	14.3	14.8	16.0	16.4	16.3	15.5	24	20.0
14	15.2	14.2	10.7	7.4	7.8	7.5	7.6	5.8	7.3	6.0	5.6	4.9	4.2	3.7	3.2	2.9	2.9	2.9	2.9	3.3	3.6	4.4	4.7	5.3	24	15.2
15	5.7	7.2	9.8	11.8	12.3	11.0	9.2	8.5	9.7	10.3	10.3	11.7	10.9	8.4	7.2	6.8	7.7	7.9	8.6	9.0	9.7	10.5	10.1	9.6	24	12.3
16	10.3	10.2	12.0	12.8	11.1	10.5	10.4	11.3	10.4	9.8	9.4	10.4	11.4	10.2	9.7	6.3	5.1	5.0	5.1	6.5	7.8	7.5	9.4	9.7	24	12.8
17	9.4	9.7	9.5	9.2	9.6	9.0	8.3	7.7	6.7	6.2	5.7	5.5	5.5	5.3	5.7	6.5	6.6	6.8	7.2	8.7	8.4	9.8	9.3	9.3	24	9.8
18	10.0	10.6	10.5	10.4	5.7	3.7	4.3	4.4	4.3	5.2	6.8	7.6	8.2	7.4	7.2	7.5	7.6	7.3	7.6	7.9	7.9	7.8	8.4	8.7	24	10.6
19	8.7	9.1	10.4	9.9	8.9	8.0	5.6	4.7	4.4	4.2	4.4	4.4	4.1	5.5	5.1	5.3	5.7	5.9	5.3	5.7	8.2	9.7	10.6	13.1	24	13.1
20	14.1IF	14.9IF	16.2IF	16.6IF	14.1IF	13.3IF	16.6IF	20.0IF	17.1IF	17.7IF	16.1IF	14.3IF	11.8IF	13.9IF	16.8IF	22.8IF	23.1IF	21.8IF	23.8IF	25.0IF	14.5IF	10.2IF	12.4IF	12.9IF	24	25.0
21	12.6	13.2	13.9	12.5	11.2	8.9	7.4	7.1	8.6	9.1	7.7	6.9	7.0	6.6	7.1	7.1	7.3	7.0	7.9	8.6	4.0	3.2	3.3	4.1	24	13.9
22	4.1	4.2	4.7	5.4	6.5	7.9	9.3	9.1	8.1	7.8	9.2	10.9	13.5	14.7	16.6	13.8	11.2	11.2	13.4	13.7	12.2	12.3	13.2	14.7	24	16.6
23	15.8IF	14.1IF	13.8IF	13.4IF	14.6IF	16.3IF	17.8IF	11.4IF	9.5IF	10.9IF	14.1IF	16.7IF	17.6IF	18.9IF	19.0IF	18.4IF	18.4IF	19.2IF	19.4IF	23.9IF	27.6IF	32.1IF	25.3IF	24.5IF	24	32.1
24	28.7IF	24.2IF	21.9IF	21.3IF	21.3IF	23.0IF	21.4IF	24.0IF	18.1IF	16.3IF	16.7IF	17.0IF	17.4IF	19.1IF	17.7IF	18.0IF	17.4IF	17.1IF	16.9IF	17.2IF	16.7IF	17.7IF	19.5IF	19.5IF	24	28.7
25	19.9	19.9	20.4	20.3	18.6	18.4	17.0	15.8	15.5	15.4	13.6	13.3	12.9	12.9	13.0	13.1	13.4	12.6	13.4	12.0	8.3	7.2	6.6	7.1	24	20.4
26	6.2IF	6.2IF	6.8IF	6.8IF	6.9IF	6.9IF	7.1IF	8.1IF	9.2IF	16.9IF	37.7IF	43.2IF	42.3IF	38.6IF	36.7IF	31.9IF	33.1IF	32.4IF	29.4IF	28.9IF	29.8IF	27.9IF	27.3IF	26.5IF	24	43.2
27	25.0	23.5	25.7	29.1	29.6	30.8	34.1	36.2	35.3	35.4	33.7	32.7	30.6	31.9	27.7	23.9	23.5	24.6	26.5	24.3	24.3	24.8	24.7	25.9	24	36.2
28	26.6IF	26.9IF	28.0IF	28.9IF	29.1IF	28.4IF	28.3IF	26.6IF	27.6IF	23.5IF	22.5IF	21.7IF	21.6IF	22.1IF	21.9IF	21.9IF	21.7IF	20.9IF	20.8IF	20.3IF	20.9IF	21.6IF	21.3IF	21.7IF	24	29.1
29	21.3	20.4	19.6	18.6	18.2	18.1	16.0	14.6	12.7	11.2	11.5	BC	BC	BC	10.8	10.3	10.2	10.1	9.8	11.0	11.1	12.0	12.2	12.3	21	21.3
30	11.6	12.0	12.3	11.9	11.8	10.8	10.7	AZ	11.4	11.2	11.1	11.6	12.0	12.7	13.1	12.7	12.8	13.2	13.1	12.7	12.5	13.1	14.0	14.2	23	14.2
31																									0	
NO.:	30	30	30	30	30	30	30	28	30	30	30	29	29	29	30	30	30	30	30	30	30	30	30	30		
MAX:	36.5	35.5	47.1	50.4	43.5	36.1	34.2	36.2	35.3	35.4	37.7	43.2	42.3	38.6	36.7	32.7	33.1	32.4	34.7	36.3	34.5	33.9	35.1	36.7		
AVG:	17.89	18.02	18.81	18.98	18.67	18.32	18.06	17.15	16.76	16.23	16.52	16.94	16.90	16.92	16.19	16.10	15.59	15.44	15.95	16.55	16.31	16.74	17.13	17.46		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 17.07 MONTHLY MAX: 50.4

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JULY 2023

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

DAY	HOUR 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	14.3	14.4	14.1	14.3	14.8	14.5	13.9	14.2	12.8	11.3	12.8	13.5	13.8	14.0	12.8	12.8	12.7	14.7	14.2	14.4	14.8	14.9	14.8	14.4	24	14.9
2	14.2	13.3	12.8	12.7	12.4	11.5	10.4	9.9	9.6	9.6	11.7	10.4	9.9	10.4	7.2	6.9	7.1	6.6	7.6	6.7	6.7	7.5	11.8	7.5	24	14.2
3	7.7	7.8	8.2	8.3	9.0	8.6	8.1	7.6	7.4	7.6	7.7	7.8	7.8	7.0	5.4	5.8	6.5	7.3	5.2	2.9	3.8	4.2	4.3	4.9	24	9.0
4	5.3	5.5	5.6	5.6	5.7	6.0	6.8	6.7	7.4	8.3	9.0	9.8	10.7	10.7	11.0	11.4	9.2	8.6	3.4	4.2	23.7	10.7	8.3	7.9	24	23.7
5	8.3	8.4	8.7	8.9	9.1	8.8	7.5	7.1	7.4	7.4	7.1	7.5	7.6	8.4	8.9	9.4	9.8	11.0	8.0	5.1	5.5	8.0	7.5	7.8	24	11.0
6	7.4	6.3	4.9	5.1	5.3	5.2	5.5	6.5	7.2	7.6	7.6	6.8	6.0	7.7	6.5	5.7	4.6	5.1	5.3	6.2	6.2	7.9	7.1	4.8	24	7.9
7	3.3	3.3	3.5	3.5	3.8	4.1	4.4	5.2	6.7	7.3	7.2	8.1	7.1	6.3	5.0	5.3	5.5	5.1	4.6	4.9	6.8	7.8	6.6	6.6	24	8.1
8	7.0	6.7	6.6	6.3	6.2	5.9	5.5	5.6	6.2	7.4	7.8	7.2	5.0	4.5	4.9	4.3	3.7	3.9	4.2	4.4	5.0	5.4	5.8	5.8	24	7.8
9	5.7	5.4	5.1	5.7	5.3	5.3	5.3	5.0	4.5	4.0	3.9	4.2	3.7	3.6	4.7	2.8	1.9	1.6	1.3	1.5	1.6	2.0	2.8	3.0	24	5.7
10	3.5	3.8	4.1	4.3	4.7	5.1	7.2	7.4	7.7	7.6	7.7	8.9	8.7	9.5	10.0	9.1	8.1	7.4	6.9	8.4	9.4	11.6	12.3	11.5	24	12.3
11	11.4	11.3	10.8	10.4	8.6	9.3	8.8	8.4	8.1	7.2	6.5	6.7	6.8	6.6	6.2	6.8	7.2	7.3	7.3	8.2	8.7	9.2	9.3	9.7	24	11.4
12	9.6	9.1	9.7	10.3	9.9	7.9	5.5	4.6	5.3	5.9	4.2	3.6	3.9	4.9	4.6	4.1	4.7	4.4	4.1	4.3	4.1	4.1	4.1	4.0	24	10.3
13	4.2	4.4	4.6	5.1	5.3	5.8	6.3	8.1	AZ	5.8	4.7	3.7	3.6	5.5	4.6	4.8	4.5	5.0	3.5	3.1	3.4	3.7	5.1	6.8	23	8.1
14	7.2	8.1	8.1	8.4	8.6	8.0	8.2	8.4	7.8	7.8	5.6	5.0	4.4	4.3	4.0	4.0	3.7	3.5	4.5	4.3	4.1	4.4	5.5	5.6	24	8.6
15	5.7	6.0	6.9	2.4	2.6	2.8	2.8	2.5	2.4	2.4	2.5	3.1	3.5	3.6	4.1	4.8	6.1	6.9	7.8	7.5	9.2	10.0	10.5	11.2	24	11.2
16	11.4	12.8	11.7	10.1	9.6	8.5	8.4	7.6	7.0	7.3	7.9	11.7	12.6	12.5	11.0	10.3	10.7	11.1	11.8	11.8	12.3	11.8	11.4	11.0	24	12.8
17	11.7	12.1	12.2	11.3	10.8	10.6	9.6	10.5	8.4	8.5	7.3	7.6	9.1	8.6	8.3	7.8	5.5	5.3	5.4	6.5	6.5	6.1	6.4	6.4	24	12.2
18	6.1	6.1	6.3	6.2	6.6	8.0	11.4	11.2	12.3	15.0	17.1	18.2	19.2	18.9	18.5	18.8	18.5	13.0	5.1	5.4	4.9	5.1	6.9	9.1	24	19.2
19	12.9	15.9	17.8	18.0	17.8	17.7	16.5	14.8	14.2	13.6	13.8	13.8	13.0	12.4	11.7	10.1	9.0	9.3	9.7	8.9	11.5	9.7	9.5	9.2	24	18.0
20	9.0	9.2	9.2	9.6	9.9	10.1	10.3	10.8	11.7	10.3	26.9	19.3	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	12	26.9
21	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	0	
22	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	0	
23	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	0	
24	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	BC	BC	13.2	13.6	14.0	14.6	14.6	13.6	13.6	14.2	14.4	14.6	14.9	11	14.9
25	15.3	15.1	15.1	15.2	15.4	15.1	15.4	15.2	13.7	13.2	12.2	12.7	13.0	12.9	13.5	13.3	13.8	13.7	14.0	14.3	14.6	14.7	14.8	15.3	24	15.4
26	15.6IF	15.5IF	16.1IF	15.8IF	16.2IF	16.5IF	17.1IF	18.0IF	17.4IF	16.9IF	17.1IF	16.7IF	16.5IF	16.0IF	15.6IF	15.1IF	15.2IF	15.3IF	16.2IF	17.4IF	17.2IF	17.8IF	18.5IF	19.0IF	24	19.0
27	19.5IF	19.0IF	18.7IF	19.5IF	19.6IF	20.6IF	20.3IF	19.4IF	18.2IF	18.6IF	18.7IF	18.9IF	18.8IF	19.1IF	18.1IF	18.1IF	18.2IF	17.4IF	17.4IF	17.5IF	18.0IF	18.6IF	17.9IF	18.3IF	24	20.6
28	18.4IF	19.2IF	19.1IF	19.8IF	19.5IF	19.8IF	19.4IF	19.6IF	18.7IF	18.6IF	18.6IF	19.3IF	18.4IF	18.0IF	18.2IF	18.7IF	18.3IF	17.7IF	17.3IF	17.1IF	17.0IF	17.9IF	17.2IF	18.1IF	24	19.8
29	18.7IF	18.9IF	19.4IF	19.9IF	19.9IF	20.4IF	18.8IF	18.3IF	16.9IF	16.9IF	17.2IF	18.2IF	18.8IF	20.1IF	20.0IF	19.5IF	19.5IF	18.5IF	18.1IF	18.3IF	17.5IF	18.3IF	18.9IF	19.5IF	24	20.4
30	15.8	13.1	13.7	13.7	13.0	12.4	12.3	11.7	10.8	10.3	8.6	7.0	6.3	5.9	5.7	5.6	5.4	4.8	4.8	4.4	4.5	4.4	4.7	6.2	24	15.8
31	7.7	8.2	8.3	7.9	8.6	9.5	9.3	8.1	8.0	7.7	7.6	8.2	8.0	14.8	10.6	9.0	9.2	7.9	7.5	9.3	9.4	8.1	9.1	9.2	24	14.8
NO.:	27	27	27	27	27	27	27	27	26	27	27	27	26	27	27	27	27	27	27	27	27	27	27	27		
MAX:	19.5	19.2	19.4	19.9	19.9	20.6	20.3	19.6	18.7	18.6	26.9	19.3	19.2	20.1	20.0	19.5	19.5	18.5	18.1	18.3	23.7	18.6	18.9	19.5		
AVG:	10.26	10.33	10.42	10.31	10.30	10.30	10.19	10.09	9.92	9.78	10.33	10.29	9.85	10.35	9.80	9.57	9.38	9.15	8.47	8.54	9.65	9.57	9.84	9.91		

MONTHLY OBSERVATIONS: 646 MONTHLY MEAN: 9.86 MONTHLY MAX: 26.9

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: AUGUST 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	10.0	10.2	11.0	10.4	10.6	10.5	9.6	10.8	10.3	9.2	9.2	10.1	9.6	8.4	8.3	10.2	9.5	9.2	9.5	8.9	8.7	9.3	8.9	9.2	24	11.0
2	9.9	10.5	10.6	11.4	11.8	12.4	12.3	11.6	10.7	10.5	10.2	10.9	11.1	11.2	AZ	11.6	12.1	12.0	12.0	12.1	12.3	12.7	13.3	13.9	23	13.9
3	14.0IF	14.1IF	14.0IF	14.4IF	15.1IF	15.0IF	14.7IF	14.7IF	16.7IF	20.6IF	21.0IF	21.8IF	20.1IF	15.1IF	15.5IF	17.6IF	17.5IF	16.8IF	16.6IF	16.6IF	17.2IF	17.4IF	18.1IF	17.7IF	24	21.8
4	19.1	18.4	18.2	18.5	18.7	18.8	17.3	12.6	6.1	3.3	2.8	2.8	2.8	2.7	2.8	2.8	3.1	3.8	3.5	3.7	3.5	4.5	4.3	4.0	24	19.1
5	3.9	3.9	4.1	4.1	4.4	4.8	5.9	7.2	8.5	9.6	9.8	9.6	9.7	9.6	9.4	10.3	7.1	5.6	6.1	6.3	7.2	8.2	9.1	9.0	24	10.3
6	9.0	9.4	9.9	10.4	10.2	10.3	10.0	9.8	9.1	9.6	9.2	6.9	6.2	6.0	5.5	4.9	4.5	4.4	4.7	5.0	5.9	6.5	7.0	7.1	24	10.4
7	7.9	8.5	9.3	9.9	9.9	9.9	10.0	10.4	8.6	7.3	6.9	5.9	4.7	4.4	3.7	3.3	3.0	3.3	4.3	4.6	4.5	5.1	4.7	4.6	24	10.4
8	4.7	4.7	4.7	5.1	5.2	5.1	6.0	5.3	4.9	5.2	5.7	5.6	5.7	6.9	7.3	6.6	6.8	7.5	7.3	7.6	7.6	6.7	6.0	5.5	24	7.6
9	5.2	5.2	5.8	6.0	6.7	5.4	5.1	4.6	4.7	5.1	6.4	6.8	5.1	4.0	4.0	4.2	3.9	3.8	4.6	6.6	7.1	7.1	7.2	6.5	24	7.2
10	6.2	6.0	7.4	6.8	6.0	6.6	6.2	6.3	6.3	6.9	7.2	7.2	6.9	6.5	6.7	6.8	6.7	6.4	4.5	4.3	4.6	4.9	5.1	6.5	24	7.4
11	6.3	5.7	5.4	4.8	4.4	4.9	4.3	4.8	6.5	8.3	9.0	9.8	10.3	AZ	10.2	9.6	8.5	8.2	8.5	8.7	8.7	9.9	11.1	10.7	23	11.1
12	11.4	10.6	10.6	10.2	10.3	11.3	11.4	11.4	11.1	10.8	11.1	10.8	10.9	9.0	7.2	7.1	8.5	9.9	9.6	8.4	7.8	8.0	8.8	9.1	24	11.4
13	9.8	9.9	10.9	11.7	11.3	11.2	10.6	9.9	10.0	10.2	12.8	13.9	9.6	5.7	6.0	6.5	7.0	7.2	7.3	7.9	7.6	7.3	7.0	7.1	24	13.9
14	7.7	8.6	8.6	8.5	8.9	9.7	8.4	4.5	4.4	4.9	5.2	5.6	7.3	8.0	8.8	9.1	8.4	4.5	4.5	3.8	3.3	3.4	4.3	4.1	24	9.7
15	4.2	4.1	4.1	4.4	4.5	4.6	4.8	4.7	4.9	4.7	4.1	3.7	3.9	4.2	4.5	4.9	4.3	4.3	4.8	5.6	5.0	5.6	6.1	6.6	24	6.6
16	6.2	6.1	6.3	6.4	6.8	7.2	7.1	5.7	6.5	6.1	6.1	5.2	5.7	6.0	6.8	6.9	7.4	8.4	10.5	12.2	13.2	14.0	13.9	15.8	24	15.8
17	15.2	14.5	14.6	13.8	13.0	11.7	12.7	11.4	11.1	8.2	6.8	6.9	6.6	6.4	6.3	6.2	6.8	7.3	7.9	8.2	8.1	8.2	8.7	9.6	24	15.2
18	10.0	10.7	10.4	10.5	11.3	16.3	18.6	11.8	13.8	13.4	14.4	13.9	14.0	14.3	14.7	13.6	13.6	13.2	12.9	12.6	12.1	12.1	11.8	12.6	24	18.6
19	13.3	14.3	14.7	14.8	15.5	15.2	14.7	14.9	13.5	14.0	14.6	15.4	16.5	17.3	16.1	16.0	15.1	12.5	11.7	11.6	11.6	13.4	13.4	14.2	24	17.3
20	14.0	13.9	13.4	13.8	13.6	13.8	13.6	13.8	14.3	14.0	14.8	14.2	13.3	13.3	12.5	12.5	12.4	12.3	13.0	13.3	14.8	14.8	14.9	15.1	24	15.1
21	15.5IF	15.9IF	16.2IF	16.4IF	16.4IF	17.2IF	17.4IF	17.0IF	16.5IF	17.2IF	16.7IF	16.1IF	16.4IF	17.2IF	17.8IF	17.2IF	16.8IF	17.0IF	16.6IF	16.9IF	15.8IF	16.1IF	16.1IF	16.8IF	24	17.8
22	16.9IT	17.2IT	17.9IT	17.9IT	18.7IT	18.7IT	19.6IT	17.9IT	17.4IT	18.0IT	18.1IT	18.0IT	18.8IT	19.4IT	19.2IT	18.9IT	18.7IT	18.8IT	18.0IT	17.1IT	17.7IT	18.3IT	18.6IT	18.8IT	24	19.6
23	18.9IT	19.3IT	19.6IT	19.4IT	20.5IT	19.7IT	19.5IT	21.7IT	23.3IT	21.9IT	21.7IT	21.6IT	21.6IT	21.2IT	22.1IT	24.7IT	24.9IT	19.9IT	20.2IT	20.3IT	21.1IT	21.7IT	21.7IT	21.3IT	24	24.9
24	22.0IT	21.8IT	21.5IT	22.0IT	21.7IT	21.2IT	20.7IT	20.4IT	20.9IT	20.9IT	21.5IT	21.1IT	20.7IT	20.5IT	19.9IT	20.1IT	19.6IT	19.6IT	19.9IT	19.6IT	21.4IT	20.7IT	20.7IT	20.8IT	24	22.0
25	21.9	21.9	22.5	23.1	23.2	23.5	24.0	23.7	21.3	21.2	21.1	21.3	21.5	21.0	20.5	19.6	19.2	19.2	19.9	19.9	20.2	21.7	21.2	21.5	24	24.0
26	21.8IT	22.2IT	23.2IT	22.2IT	22.5IT	22.4IT	22.1IT	23.2IT	24.1IT	27.4IT	25.3IT	23.2IT	21.4IT	21.4IT	21.4IT	20.3IT	20.7IT	20.3IT	21.1IT	15.9IT	15.3IT	14.6IT	14.4IT	11.8IT	24	27.4
27	9.8	8.8	10.2	8.0	7.2	7.8	7.7	7.6	6.9	6.1	6.3	7.6	8.7	8.9	9.6	7.8	7.0	4.7	7.2	9.1	12.4	14.2	16.6	16.4	24	16.6
28	16.6	12.4	5.9	5.6	7.2	10.0	13.6	15.0	16.4	15.3	14.4	12.6	12.4	11.6	11.4	11.5	11.9	10.5	10.3	10.5	11.0	11.4	11.2	11.2	24	16.6
29	11.5	11.4	12.1	12.6	13.1	13.1	13.3	13.0	12.8	13.3	13.2	13.0	13.2	13.3	14.0	14.1	13.5	13.4	13.4	14.6	16.0	16.2	17.8	18.3	24	18.3
30	18.8IF	19.2IF	18.8IF	18.0IF	18.1IF	18.4IF	19.4IF	19.3IF	19.1IF	18.8IF	19.5IF	18.4IF	19.2IF	18.1IF	17.9IF	17.8IF	16.9IF	17.7IF	18.3IF	18.4IF	16.9IF	13.8IF	11.1IF	9.7IF	24	19.5
31	8.8	8.0	7.4	7.6	7.3	7.3	7.4	AZ	9.4	9.0	8.8	8.9	8.9	8.5	8.1	7.6	7.5	7.4	7.9	8.8	8.9	9.5	9.9	9.2	23	9.9
NO.:	31	31	31	31	31	31	31	30	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31		
MAX:	22.0	22.2	23.2	23.1	23.2	23.5	24.0	23.7	24.1	27.4	25.3	23.2	21.6	21.4	22.1	24.7	24.9	20.3	21.1	20.3	21.4	21.7	21.7	21.5		
AVG:	11.95	11.85	11.91	11.89	12.07	12.39	12.52	12.17	11.94	11.97	12.06	11.90	11.70	11.34	11.27	11.30	11.06	10.62	10.86	10.94	11.21	11.53	11.71	11.76		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 11.66 MONTHLY MAX: 27.4

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: SEPTEMBER 2023

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	7.7	7.7	7.5	8.2	8.3	8.8	9.1	9.7	11.4	12.2	11.9	12.3	11.9	12.0	13.3	12.3	12.2	12.0	12.7	13.0	11.4	11.4	10.7	8.9	24	13.3
2	6.8	5.6	5.5	5.5	6.3	7.7	9.1	10.5	12.3	12.9	10.8	9.0	8.2	8.3	9.2	10.4	11.0	10.6	9.6	8.7	8.8	9.1	9.4	10.5	24	12.9
3	10.5	10.6	10.8	10.7	10.9	11.0	10.7	10.3	9.8	9.3	8.9	9.1	8.9	9.2	9.3	9.3	9.1	7.7	6.7	7.2	7.8	7.7	7.7	8.0	24	11.0
4	8.1	8.2	8.6	8.8	9.0	9.4	9.5	8.8	8.0	7.1	7.0	6.7	7.3	8.0	8.5	9.0	8.8	8.3	7.4	8.0	8.0	7.8	8.4	8.6	24	9.5
5	8.5	8.9	9.4	9.8	9.8	9.4	8.6	7.2	6.9	6.6	5.7	5.6	5.7	5.8	6.4	7.2	5.9	4.5	4.3	5.5	5.6	6.0	6.5	6.8	24	9.8
6	8.4	9.3	9.9	10.2	9.7	8.8	7.6	6.8	6.1	6.1	7.0	7.6	8.0	9.1	7.9	9.3	8.6	5.5	6.0	7.9	9.0	10.1	10.2	9.3	24	10.2
7	10.4IF	12.2IF	14.2IF	16.4IF	19.1IF	19.7IF	22.1IF	24.5IF	27.3IF	20.7IF	34.0IF	32.9IF	32.5IF	31.9IF	30.3IF	31.3IF	29.9IF	28.8IF	30.5IF	31.8IF	34.0IF	34.6IF	36.5IF	37.3IF	24	37.3
8	40.0IF	38.6IF	38.7IF	40.0IF	40.7IF	40.6IF	40.3IF	42.2IF	29.1IF	26.9IF	26.2IF	27.9IF	29.0IF	27.4IF	25.0IF	22.6IF	19.4IF	17.3IF	18.8IF	18.7IF	22.5IF	23.2IF	23.8IF	21.0IF	24	42.2
9	17.5	14.1	13.1	11.9	11.1	11.6	12.1	10.9	9.0	8.7	8.2	7.1	7.2	7.6	7.5	7.3	7.2	7.7	7.6	5.6	5.1	4.9	5.9	6.4	24	17.5
10	7.0	7.4	7.6	7.6	8.4	8.2	9.5	10.1	9.0	8.3	7.2	7.2	7.8	8.5	8.5	8.3	8.3	8.2	8.9	8.5	8.6	8.5	7.9	8.1	24	10.1
11	8.2	8.2	8.4	8.5	7.9	7.8	9.2	8.3	8.6	9.3	9.8	10.1	9.9	10.0	10.4	11.1	11.6	11.4	11.2	10.3	10.3	10.3	9.8	10.4	24	11.6
12	9.7	9.6	9.5	9.6	9.3	9.3	9.4	9.7	9.3	9.2	9.5	10.1	10.3	10.1	10.6	9.6	10.0	10.7	11.5	12.1	12.4	12.0	11.9	11.7	24	12.4
13	11.6	11.5	11.5	11.1	10.4	10.1	8.7	7.3	7.1	7.2	8.2	8.4	7.9	7.2	8.9	7.1	6.8	7.2	7.9	7.0	7.0	7.1	7.2	7.5	24	11.6
14	7.5	7.7	7.9	7.1	7.2	7.2	7.1	7.7	7.1	6.6	6.3	6.6	7.2	8.9	9.6	9.6	9.8	10.2	11.0	11.8	11.3	13.6	10.9	11.0	24	13.6
15	11.1	10.9	10.5	9.6	8.9	8.7	9.0	9.8	9.6	AZ	8.3	7.6	7.0	6.9	7.1	7.0	6.9	7.9	8.0	8.5	9.4	11.3	11.0	9.9	23	11.3
16	10.1	11.2	8.9	8.9	9.2	9.7	11.3	10.5	10.5	10.8	9.9	9.5	10.2	10.9	11.2	17.9	43.0	36.2	35.7	40.9	44.5	44.9	36.3	34.2	24	44.9
17	33.0IM	34.3IM	34.3IM	30.3IM	30.5IM	31.0IM	24.2IM	21.1IM	19.0IM	13.2IM	11.2IM	10.8IM	9.2IM	7.3IM	8.5IM	14.0IM	29.3IM	34.1IM	36.5IM	35.4IM	28.4IM	28.4IM	26.7IM	21.3IM	24	36.5
18	21.0IM	21.4IM	23.8IM	23.2IM	22.6IM	24.4IM	23.4IM	19.4IM	11.4IM	10.3IM	13.4IM	14.3IM	14.9IM	15.5IM	15.1IM	15.7IM	15.3IM	16.5IM	16.0IM	15.2IM	13.8IM	13.7IM	14.5IM	16.1IM	24	24.4
19	15.8	16.4	15.3	14.7	12.3	11.5	10.7	10.0	8.8	8.5	10.7	12.2	13.9	15.7	15.9	16.8	16.3	16.9	17.8	17.6	17.1	16.7	16.6	14.6	24	17.8
20	13.8	12.6	11.8	11.2	12.1	12.7	13.5	16.4	17.7	18.9	19.9	18.4	18.2	17.2	16.0	15.8	15.4	16.5	14.2	9.2	7.8	7.8	8.7	10.3	24	19.9
21	12.7IM	14.1IM	16.0IM	17.7IM	18.8IM	19.5IM	21.6IM	21.3IM	20.1IM	18.0IM	16.4IM	15.4IM	14.3IM	14.8IM	14.6IM	14.7IM	14.6IM	15.4IM	17.7IM	17.6IM	18.3IM	18.5IM	18.1IM	17.9IM	24	21.6
22	17.0	17.0	16.5	15.2	15.5	15.7	16.5	15.8	15.5	14.5	13.9	12.9	13.1	12.9	12.5	12.8	12.7	12.7	14.0	15.0	15.2	16.6	18.6	21.1	24	21.1
23	20.9	21.8	22.1	18.3	17.7	18.0	18.5	17.9	14.8	13.3	12.7	13.7	13.2	13.4	13.3	13.3	13.5	15.2	16.5	24.2	18.1	15.7	15.9	15.7	24	24.2
24	14.8	15.5	17.2	22.6	16.2	15.0	15.4	15.1	14.2	14.0	14.3	14.3	14.6	14.6	15.2	12.5	10.9	9.8	10.4	11.3	12.9	12.8	12.4	14.8	24	22.6
25	17.0	17.3	16.8	16.7	15.5	14.5	14.3	13.6	12.8	12.5	12.1	11.4	13.1	14.6	13.8	13.7	16.3	18.2	18.3	15.1	15.0	15.5	15.1	13.7	24	18.3
26	12.2	13.3	12.4	12.8	11.4	10.7	10.7	10.4	10.8	9.4	8.4	10.3	10.3	10.4	10.7	10.4	10.9	11.6	14.2	15.8	14.3	14.1	14.5	14.2	24	15.8
27	14.8IM	15.5IM	15.5IM	15.2IM	16.2IM	16.8IM	18.7IM	18.8IM	17.8IM	18.7IM	17.6IM	16.4IM	15.4IM	15.4IM	14.9IM	14.5IM	15.2IM	15.8IM	15.6IM	15.3IM	15.9IM	16.0IM	16.0IM	15.9IM	24	18.8
28	15.1	13.5	13.3	12.7	12.4	12.6	13.4	13.0	12.2	10.6	9.8	9.2	9.6	10.7	11.6	12.1	12.2	12.3	12.8	12.5	12.2	11.9	11.5	11.4	24	15.1
29	12.2	12.4	11.2	11.0	10.1	9.6	9.3	9.9	8.9	8.2	7.3	6.5	6.5	AZ	11.6	12.0	12.1	14.3	15.2	17.7	18.7	17.3	17.5	18.6	23	18.7
30	17.8IM	17.4IM	17.4IM	17.7IM	18.7IM	18.3IM	20.0IM	18.5IM	18.9IM	13.8IM	13.4IM	14.8IM	16.3IM	18.2IM	19.9IM	20.2IM	19.2IM	19.1IM	19.1IM	19.6IM	18.9IM	19.1IM	20.0IM	18.9IM	24	20.2
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	30	30	30	29	30	30	30	30	30	30	30	30	30	30		
MAX:	40.0	38.6	38.7	40.0	40.7	40.6	40.3	42.2	29.1	26.9	34.0	32.9	32.5	31.9	30.3	31.3	43.0	36.2	36.5	40.9	44.5	44.9	36.5	37.3		
AVG:	14.04	14.14	14.19	14.11	13.87	13.94	14.12	13.85	12.80	11.92	12.00	11.94	12.05	12.50	12.58	12.93	14.08	14.09	14.54	14.90	14.74	14.89	14.67	14.47		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 13.64 MONTHLY MAX: 44.9

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: OCTOBER 2023

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

DAY	HOUR 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	19.3	17.6	17.4	17.6	16.6	16.5	16.5	16.3	15.5	15.2	13.1	12.1	11.4	10.9	10.7	11.0	11.5	12.1	14.8	13.6	13.9	15.4	16.8	17.5	24	19.3
2	17.6	16.8	16.7	17.1	17.7	18.2	17.6	17.2	14.3	13.3	12.5	11.3	11.7	11.7	11.4	12.1	11.2	11.9	12.4	13.2	13.9	14.5	15.6	15.6	24	18.2
3	15.5IM	15.0IM	15.8IM	16.1IM	16.3IM	15.5IM	15.7IM	14.6IM	12.1IM	10.1IM	9.2IM	9.7IM	12.6IM	15.5IM	13.3IM	14.9IM	18.3IM	20.2IM	22.6IM	23.5IM	25.5IM	26.1IM	24.6IM	25.1IM	24	26.1
4	30.2	36.3	39.3	41.3	43.9	44.2	45.0	40.9	39.6	37.4	34.6	34.2	33.1	33.2	33.6	34.3	36.0	38.1	38.1	38.2	40.5	46.8	49.1	47.6	24	49.1
5	45.6	45.6	45.3	45.5	44.3	46.5	46.3	42.9	43.3	41.3	38.8	40.1	38.8	38.2	38.0	34.7	27.4	26.8	27.5	27.6	27.3	28.0	28.8	29.4	24	46.5
6	28.1	27.5	22.7	17.6	17.3	19.7	15.2	13.2	12.3	11.1	10.6	10.6	9.7	8.0	6.2	5.6	4.4	4.3	5.1	5.0	5.0	4.7	4.1	4.5	24	28.1
7	4.6	4.1	4.1	4.2	4.5	4.4	4.7	4.7	4.6	4.3	4.3	4.6	3.9	3.6	3.4	3.5	3.4	3.6	4.4	5.9	7.6	10.3	14.2	9.0	24	14.2
8	8.8	7.5	7.2	7.3	7.5	8.4	8.0	8.7	8.9	6.2	3.3	3.3	3.0	3.0	3.2	3.9	3.6	3.8	8.6	7.3	8.7	9.0	15.0	17.0	24	17.0
9	15.2	10.8	7.6	6.2	5.7	5.4	5.4	5.3	5.9	6.1	6.7	6.4	6.4	6.8	9.6	7.8	15.0	11.1	8.5	7.7	8.1	8.8	9.1	9.0	24	15.2
10	10.8IM	14.8IM	15.4IM	15.7IM	16.9IM	17.1IM	13.1IM	13.6IM	9.0IM	9.3IM	9.8IM	8.8IM	7.0IM	7.1IM	8.1IM	15.7IM	23.8IM	20.7IM	21.8IM	45.2IM	45.4IM	54.8IM	40.2IM	32.9IM	24	54.8
11	28.4	24.9	21.4	18.4	16.1	15.8	16.0	AZ	20.8	21.2	24.2	26.0	30.6	24.9	23.2	23.7	21.5	19.0	15.3	11.6	9.8	9.5	9.8	10.5	23	30.6
12	11.0	11.0	11.7	11.3	11.3	13.7	14.7	14.5	14.0	11.1	8.5	8.4	9.9	9.8	9.2	9.1	8.9	7.0	6.3	6.4	7.2	6.7	6.3	6.1	24	14.7
13	6.1	7.1	7.3	8.1	8.6	10.0	10.6	9.7	7.3	6.2	5.8	6.2	6.7	8.3	7.9	8.4	7.2	7.3	8.6	10.3	10.9	12.9	13.2	12.5	24	13.2
14	11.6	11.5	11.2	9.2	6.6	5.0	4.7	4.4	3.6	3.3	3.2	3.3	3.7	5.9	8.3	45.8	61.4	33.2	28.7	37.9	18.8	4.7	4.6	3.7	24	61.4
15	3.1	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.6	4.1	5.3	6.3	5.7	5.0	4.1	3.8	4.6	4.1	3.7	3.3	3.5	3.6	4.0	3.8	24	6.3
16	3.4	3.1	3.2	2.9	2.9	3.2	3.2	3.0	3.3	3.4	3.7	3.9	4.1	11.4	22.8	10.8	5.0	14.4	17.3	16.7	16.5	22.6	34.4	45.9	24	45.9
17	45.5	46.8	51.9	50.6	50.7	53.0	48.8	48.5	45.9	AZ	AZ	AZ	AZ	AZ	AZ	AZ	BA	BA	BA	BA	BA	BA	BA	BA	9	53.0
18	BA	BA	BA	BA	BA	BA	BA	BA	19.7	17.9	17.0	12.4	10.9	9.1	8.5	15.8	16.7	10.9	9.5	8.9	7.7	8.3	9.2	9.2	16	19.7
19	9.3	9.2	9.6	10.7	12.0	12.0	11.8	10.7	9.0	8.2	9.5	8.3	7.3	6.8	7.0	7.5	7.1	7.9	7.9	7.6	8.2	11.0	14.1	14.6	24	14.6
20	17.1IM	16.6IM	18.4IM	15.2IM	13.2IM	11.4IM	10.4IM	8.3IM	7.8IM	7.8IM	6.4IM	6.4IM	5.7IM	5.7IM	8.3IM	13.7IM	24.8IM	32.3IM	29.3IM	26.5IM	28.7IM	26.9IM	27.9IM	32.2IM	24	32.3
21	38.6	39.6	39.6	37.5	35.9	34.5	32.7	26.3	19.6	16.2	9.4	11.4	9.8	8.9	11.7	8.1	9.7	10.5	12.6	15.6	11.0	11.6	13.3	17.6	24	39.6
22	18.4	16.1	13.5	8.4	8.9	8.1	7.1	6.0	5.2	5.5	4.9	4.6	10.4	19.0	5.6	4.1	3.6	4.3	5.1	4.8	4.7	4.7	4.6	5.6	24	19.0
23	4.8	4.8	4.8	4.9	5.0	5.3	5.4	5.9	5.9	5.7	6.7	8.5	9.6	10.5	10.8	10.8	10.9	13.2	13.0	12.3	13.5	13.5	13.9	14.3	24	14.3
24	14.4	15.3	14.3	12.4	11.0	12.0	13.5	13.1	11.6	11.1	10.5	11.0	11.2	12.1	11.2	12.0	10.7	10.0	10.2	10.2	9.1	8.7	8.3	8.0	24	15.3
25	7.6	8.5	10.7	10.8	11.0	12.5	13.9	14.6	14.5	9.7	8.2	7.3	7.4	7.6	6.8	6.6	6.9	7.3	8.2	7.7	7.9	8.0	7.4	6.4	24	14.6
26	6.3	6.2	6.4	6.7	7.0	7.2	7.5	11.2	8.9	7.4	6.3	5.7	5.7	8.3	13.8	21.6	12.7	7.5	6.0	5.8	16.5	10.0	6.2	6.3	24	21.6
27	6.7	6.8	6.8	6.7	6.1	5.6	5.3	5.7	6.0	6.7	7.1	7.5	8.0	7.9	8.2	7.3	7.1	7.9	8.6	7.6	7.5	7.8	8.1	8.3	24	8.6
28	8.6	7.9	8.2	8.5	9.1	9.6	10.7	11.2	11.4	11.8	11.3	10.9	11.6	16.2	14.7	17.3	13.8	12.5	11.4	12.5	15.5	16.3	16.0	16.0	24	17.3
29	15.0	14.7	14.0	12.7	9.8	9.0	8.4	8.5	8.6	7.6	7.7	8.5	9.9	10.1	10.1	9.1	9.8	10.6	10.4	4.1	2.0	2.6	1.1	.4	24	15.0
30	.9	.7	.7	1.8	2.0	2.3	4.0	7.5	9.4	14.3	16.7	17.2	19.5	17.6	11.7	9.2	7.5	6.1	5.4	5.5	5.9	6.3	6.1	6.0	24	19.5
31	5.8	5.4	5.7	5.5	5.4	5.7	6.5	7.7	7.7	8.0	7.6	6.2	6.4	6.1	6.4	5.7	4.8	5.1	5.5	4.3	4.3	4.1	4.2	3.9	24	8.0
NO.:	30	30	30	30	30	30	30	29	31	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	45.6	46.8	51.9	50.6	50.7	53.0	48.8	48.5	45.9	41.3	38.8	40.1	38.8	38.2	38.0	45.8	61.4	38.1	38.1	45.2	45.4	54.8	49.1	47.6		
AVG:	15.28	15.17	15.12	14.46	14.20	14.49	14.19	13.70	13.20	11.38	10.76	10.70	11.06	11.64	11.59	13.13	13.64	12.79	12.89	13.56	13.50	13.94	14.34	14.63		

MONTHLY OBSERVATIONS: 720 MONTHLY MEAN: 13.31 MONTHLY MAX: 61.4

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: NOVEMBER 2023

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

DAY	HOUR 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	3.6	3.5	3.5	3.6	3.7	4.2	4.8	5.7	5.9	6.1	6.1	5.9	6.5	6.7	6.7	6.5	6.7	6.4	7.6	8.1	7.8	8.6	9.6	9.3	24	9.6
2	9.5	9.4	9.8	10.4	9.9	10.7	9.6	8.2	7.0	6.4	6.1	5.8	5.1	5.0	4.6	4.6	5.0	5.0	5.7	57.1	125.5	12.9	7.9	9.2	24	125.5
3	10.2	11.3	10.6	9.4	9.8	9.7	9.8	9.0	7.4	7.3	7.0	9.8	17.3	33.3	22.4	11.6	11.6	23.4	34.0	23.4	21.9	14.5	15.7	20.8	24	34.0
4	15.0	13.1	13.0	12.6	12.7	12.8	13.5	12.1	10.6	10.7	9.3	8.3	8.3	7.4	6.9	7.7	13.3	19.2	71.2	33.1	34.8	72.2	54.9	45.6	24	72.2
5	39.7	34.3	34.2	36.3	33.5	32.4	30.6	29.8	18.5	14.3	13.9	12.0	10.5	10.3	10.2	9.7	9.8	9.7	13.7	17.3	16.7	28.4	17.1	16.7	24	39.7
6	17.0	14.3	14.0	13.6	13.5	13.3	14.3	15.1	14.6	AZ	10.9	10.3	10.4	7.7	7.6	7.0	8.2	34.7	9.1	8.1	9.7	9.9	10.0	9.5	23	34.7
7	9.4	10.4	9.5	8.7	8.9	8.7	8.6	8.2	8.0	7.6	6.6	9.0	12.8	10.3	8.3	5.5	5.3	5.3	5.3	5.3	5.9	7.2	7.1	6.0	24	12.8
8	5.9	6.1	6.2	5.6	5.4	5.5	5.4	5.0	4.7	5.0	5.0	17.8	6.8	3.4	3.3	3.7	3.4	3.7	4.3	3.7	4.7	6.2	6.2	5.2	24	17.8
9	7.2	8.2	8.6	8.5	8.5	8.7	8.0	9.6	11.1	13.1	12.8	12.3	11.7	12.2	10.6	8.5	8.3	8.8	8.5	8.5	8.4	7.6	5.9	5.4	24	13.1
10	5.2	5.4	5.3	5.2	5.5	5.7	5.4	5.7	6.3	6.3	5.8	4.7	4.5	4.6	4.6	4.6	5.0	5.0	4.9	5.2	5.0	4.8	5.0	4.7	24	6.3
11	5.0	5.2	5.4	5.1	5.3	5.2	5.4	5.7	5.8	5.6	5.3	5.2	4.8	4.6	4.8	4.7	5.0	5.7	6.7	7.3	7.7	7.7	7.7	6.9	24	7.7
12	6.7	6.9	6.7	6.5	6.7	7.0	6.6	6.9	6.8	6.9	6.6	6.2	5.7	5.8	5.5	5.8	6.0	8.0	10.4	15.3	10.8	10.4	9.9	9.3	24	15.3
13	9.6	9.2	8.4	8.1	7.8	8.1	8.1	8.5	9.5	9.4	8.1	7.6	7.8	7.4	7.3	6.3	6.4	6.6	8.1	9.3	9.4	10.2	8.4	8.4	24	10.2
14	7.7	7.6	8.2	7.6	7.8	8.2	8.6	8.6	9.6	8.8	8.0	8.8	8.8	9.1	10.1	10.6	11.0	14.0	11.5	13.4	12.4	11.9	12.2	21.0	24	21.0
15	25.4	25.7	16.8	14.8	12.9	12.2	11.9	10.1	7.6	5.3	4.6	4.9	4.9	5.1	5.2	5.4	6.0	7.0	6.2	6.3	6.4	6.8	6.6	6.7	24	25.7
16	7.1	7.6	7.8	8.0	9.0	9.9	10.4	9.8	8.9	7.5	7.2	5.8	6.4	11.6	33.2	39.6	42.7	32.5	18.5	28.4	18.1	17.0	16.4	13.1	24	42.7
17	12.7	12.5	12.0	11.3	11.4	11.9	12.7	13.6	13.4	12.8	11.7	10.2	9.4	7.7	7.6	7.6	8.7	9.4	13.4	10.5	11.2	11.6	11.9	11.8	24	13.6
18	12.2	11.8	11.9	11.1	9.3	8.2	7.2	7.2	8.1	10.7	12.5	11.1	10.2	8.2	7.6	6.7	5.9	7.0	10.6	11.7	10.7	10.7	11.8	11.3	24	12.5
19	10.0	9.5	8.7	8.5	8.5	8.0	7.9	7.9	7.5	5.9	4.4	4.4	4.4	4.9	6.3	4.1	5.4	7.9	7.7	9.1	9.2	10.3	8.5	7.6	24	10.3
20	7.0	6.7	6.7	6.4	6.9	7.1	8.3	9.0	9.7	10.2	11.3	12.1	12.3	15.9	15.3	13.7	10.8	10.9	9.5	8.9	7.8	7.6	5.4	4.5	24	15.9
21	4.8	6.3	7.2	8.4	9.7	10.5	11.4	9.1	8.1	8.6	8.5	8.0	8.5	7.9	8.5	9.5	10.6	8.6	7.2	7.9	8.7	9.4	8.7	9.5	24	11.4
22	10.3	10.8	11.5	10.8	10.7	12.6	13.0	11.3	10.1	11.0	9.2	8.1	7.5	6.5	6.6	6.7	6.4	7.1	7.7	8.6	9.8	13.3	15.8	14.3	24	15.8
23	15.3	13.9	12.7	12.8	12.6	13.6	13.6	13.8	13.1	10.7	10.7	10.1	8.8	8.5	7.8	8.1	8.0	7.6	9.7	11.8	20.9	19.2	11.5	11.2	24	20.9
24	11.0	12.7	11.3	11.3	11.2	12.1	13.2	12.7	12.4	11.4	12.3	11.3	10.0	8.6	12.8	12.7	13.7	14.3	16.3	16.6	16.1	14.9	14.4	14.4	24	16.6
25	15.3	16.2	15.9	14.4	13.4	13.0	11.7	10.6	12.1	14.9	15.4	15.4	15.1	14.5	13.8	13.4	14.2	15.3	17.8	19.6	20.5	25.5	23.2	16.6	24	25.5
26	16.8	16.9	16.5	15.7	16.1	17.4	18.0	18.5	18.3	17.6	15.6	12.7	8.0	7.5	7.6	4.0	4.6	7.0	8.1	8.4	7.4	7.3	8.0	7.6	24	18.5
27	7.5	7.4	7.5	7.1	6.8	6.7	6.7	7.3	7.2	6.9	6.7	6.4	6.2	5.7	5.4	5.1	4.6	5.1	8.0	22.0	16.3	16.7	22.0	13.0	24	22.0
28	8.2	7.4	9.2	9.4	7.4	6.7	7.1	7.9	7.5	8.3	8.1	6.8	4.6	3.1	3.4	3.3	3.4	4.2	4.7	5.9	8.4	8.8	8.0	6.9	24	9.4
29	6.1	6.1	5.5	6.1	6.7	6.9	8.1	8.9	10.1	8.8	7.4	5.9	6.5	7.3	AZ	5.9	6.0	6.9	8.1	8.0	8.1	8.4	8.2	8.1	23	10.1
30	7.5	6.7	7.3	8.5	10.1	10.8	11.0	9.7	8.4	8.2	9.8	9.0	8.1	9.1	8.0	11.3	11.5	9.0	13.2	13.2	13.8	13.4	14.1	11.8	24	14.1
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	30	30	30	30	29	30	30	30	30	30	30	30	30	30		
MAX:	39.7	34.3	34.2	36.3	33.5	32.4	30.6	29.8	18.5	17.6	15.6	17.8	17.3	33.3	33.2	39.6	42.7	34.7	71.2	57.1	125.5	72.2	54.9	45.6		
AVG:	10.96	10.77	10.40	10.19	10.06	10.26	10.36	10.18	9.61	9.18	8.90	8.86	8.40	8.66	9.03	8.46	8.92	10.51	12.26	13.73	15.80	13.78	12.40	11.55		

MONTHLY OBSERVATIONS: 718 MONTHLY MEAN: 10.56 MONTHLY MAX: 125.5

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: 28-033-0002 POC: 23
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
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
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: DECEMBER 2023

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

DAY	HOUR 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	11.0	13.1	16.0	17.3	17.6	17.0	16.9	18.4	16.9	14.1	13.5	12.9	12.0	9.6	8.5	8.2	8.7	8.7	9.0	9.5	8.8	8.3	6.5	7.8	24	18.4
2	10.0	8.1	8.1	7.8	7.3	7.1	6.7	6.7	6.4	7.0	7.3	7.5	7.8	8.2	8.4	8.2	7.8	7.5	8.6	10.7	17.8	17.9	15.9	14.8	24	17.9
3	13.4	11.0	8.3	7.0	6.7	6.0	5.4	5.5	6.8	8.7	9.5	8.3	6.9	6.3	5.2	5.3	6.1	7.8	11.6	11.8	12.7	11.7	12.0	10.5	24	13.4
4	9.7	9.3	8.1	7.6	7.6	7.6	7.2	5.4	3.8	3.6	3.7	4.3	5.2	4.7	5.9	3.7	3.2	3.5	4.4	5.1	5.3	12.5	6.9	6.1	24	12.5
5	5.8	5.9	5.4	5.4	5.6	6.0	6.1	6.7	6.3	4.8	4.1	3.3	2.8	2.8	2.6	2.6	2.1	1.9	1.6	2.4	2.9	3.2	3.3	4.3	24	6.7
6	4.1	5.9	7.2	7.8	9.9	9.5	9.5	10.1	10.8	11.7	9.0	8.1	8.5	AZ	7.4	7.6	7.3	7.3	7.5	8.1	8.3	8.0	7.6	8.2	23	11.7
7	8.1	7.8	8.0	9.0	9.6	9.1	8.8	8.4	7.4	6.7	5.4	5.2	5.9	5.4	3.9	3.2	3.3	4.0	4.1	10.4	15.0	11.0	9.7	10.9	24	15.0
8	11.0	10.6	9.3	9.1	9.6	11.3	11.2	11.6	10.6	8.9	8.1	6.7	5.5	4.7	3.9	3.2	5.0	5.9	6.6	8.6	8.6	7.3	7.6	6.9	24	11.6
9	5.9	5.4	4.6	3.8	4.1	4.2	4.3	4.7	5.0	4.6	4.5	5.0	5.6	6.0	6.1	7.2	7.2	7.2	7.0	5.7	5.6	6.4	4.2	2.4	24	7.2
10	2.1	2.1	1.9	2.0	2.4	2.3	2.6	2.7	3.2	3.7	3.7	3.7	3.2	2.4	2.0	1.5	1.5	2.4	2.8	3.3	4.1	6.1	4.9	4.9	24	6.1
11	3.6	3.1	3.1	3.3	3.5	3.7	4.3	4.9	4.8	5.1	3.4	2.6	2.2	1.9	2.4	1.6	1.6	2.5	3.4	4.0	3.6	2.9	3.1	3.3	24	5.1
12	3.6	4.2	4.1	4.3	4.0	4.1	4.1	4.3	4.2	4.3	4.8	5.0	3.7	3.3	2.9	2.9	3.6	14.6	6.3	7.5	7.4	5.3	5.4	6.3	24	14.6
13	6.3	6.4	7.5	8.5	8.7	7.5	7.8	7.6	7.4	7.0	5.9	5.4	4.6	4.2	3.7	3.9	3.8	3.9	4.6	5.5	5.7	5.6	5.3	5.8	24	8.7
14	5.8	6.2	6.6	6.8	6.9	7.0	7.2	7.3	6.3	5.9	BL	BL	3.4	3.6	3.4	3.3	3.3	4.6	16.8	6.1	5.8	6.9	6.7	6.4	22	16.8
15	6.7	6.9	7.1	7.0	6.9	6.6	6.9	6.5	5.9	5.3	4.7	4.2	4.1	4.2	4.5	4.6	4.6	4.6	6.3	6.0	6.1	5.7	6.5	6.3	24	7.1
16	7.0	6.8	6.6	6.5	6.7	7.4	7.3	7.1	7.1	6.9	6.7	6.4	6.6	6.7	6.9	7.5	8.0	8.3	10.8	8.6	8.3	7.6	5.0	3.7	24	10.8
17	3.8	4.0	4.2	4.4	5.2	6.3	5.9	5.9	5.2	4.9	4.5	4.3	4.0	3.7	3.7	3.8	3.8	3.8	5.4	5.4	5.2	5.4	6.0	5.5	24	6.3
18	5.4	5.4	5.4	5.8	5.4	5.3	5.4	5.4	5.2	4.9	3.5	3.5	4.0	4.4	3.8	3.3	3.1	3.7	4.4	3.2	2.5	2.2	2.0	2.4	24	5.8
19	2.6	2.8	2.4	2.4	2.5	2.7	3.0	3.4	3.0	3.1	3.2	3.0	2.8	2.7	2.7	2.9	3.2	3.3	3.8	3.1	3.6	3.7	4.3	4.8	24	4.8
20	5.4	5.4	6.1	6.2	6.7	6.8	7.0	7.1	7.5	6.5	5.5	6.3	5.5	5.9	5.2	5.6	5.9	6.3	6.5	7.2	7.4	7.3	8.1	8.7	24	8.7
21	8.8	9.0	8.1	8.8	9.3	9.4	10.6	9.7	8.7	7.7	7.2	7.2	7.4	7.3	7.3	8.1	7.6	9.9	11.3	12.6	14.0	14.8	12.3	11.3	24	14.8
22	11.5	10.9	10.6	11.5	12.4	11.6	11.6	10.9	9.2	9.2	10.1	10.6	10.0	10.7	7.7	8.3	9.1	11.1	15.8	12.0	11.1	11.3	10.5	15.0	24	15.8
23	12.7	13.3	14.2	13.5	12.3	11.9	11.6	10.7	10.4	9.9	9.8	11.5	12.5	10.6	9.8	9.8	8.0	6.7	6.8	8.2	9.0	8.9	9.6	9.3	24	14.2
24	9.1	8.8	8.6	8.6	8.6	9.1	9.1	8.5	8.1	7.0	6.3	5.5	5.0	4.8	4.6	8.2	17.0	12.8	20.0	3.8	4.3	4.6	4.4	3.8	24	20.0
25	3.2	2.4	1.8	1.7	1.2	1.2	1.2	1.5	1.8	1.9	2.3	2.9	2.8	2.8	2.9	3.2	3.5	3.1	2.8	2.3	1.9	1.7	1.4	1.5	24	3.5
26	1.9	1.9	1.7	1.6	1.7	1.9	2.3	2.8	2.7	2.1	1.6	1.1	1.1	1.3	1.3	1.8	2.0	5.4	8.9	27.6	13.5	19.2	9.3	6.7	24	27.6
27	4.7	5.5	5.4	5.4	5.4	4.1	3.9	3.8	3.8	3.9	4.5	4.2	3.8	4.0	3.3	2.7	2.7	2.7	2.8	2.9	2.8	2.4	2.0	2.0	24	5.5
28	2.5	2.8	3.0	3.3	3.4	3.5	3.6	3.5	3.7	4.1	4.7	4.7	4.6	4.7	4.3	4.1	4.6	4.8	4.6	4.8	4.2	3.8	3.6	3.9	24	4.8
29	4.1	4.6	5.2	6.4	6.4	7.3	8.1	8.5	8.8	7.7	7.4	7.2	6.6	6.8	6.7	6.3	5.9	6.4	6.1	6.1	5.9	6.4	6.6	6.3	24	8.8
30	6.0	6.0	6.2	5.9	6.3	6.6	6.7	6.6	6.8	6.9	6.5	5.6	5.5	5.2	4.5	3.7	3.6	4.1	4.6	4.2	4.0	4.1	3.9	4.0	24	6.9
31	4.1	4.2	4.5	5.4	4.3	4.4	4.5	4.6	5.0	4.9	4.1	4.4	4.3	4.3	4.1	3.9	4.1	4.6	5.5	8.6	10.4				21	10.4
NO.:	31	31	31	31	31	31	31	31	31	31	30	30	31	30	31	31	31	31	31	31	31	30	30	30		
MAX:	13.4	13.3	16.0	17.3	17.6	17.0	16.9	18.4	16.9	14.1	13.5	12.9	12.5	10.7	9.8	9.8	17.0	14.6	20.0	27.6	17.8	19.2	15.9	15.0		
AVG:	6.45	6.45	6.43	6.58	6.72	6.73	6.80	6.80	6.54	6.23	5.85	5.69	5.42	5.11	4.83	4.85	5.20	5.92	7.12	7.27	7.28	7.41	6.49	6.46		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 6.28 MONTHLY MAX: 27.6

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JANUARY 2024

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	5.1	5.6	5.5	5.8	5.6	4.8	4.8	5.0	5.1	5.0	4.7	5.2	5.9	6.8	8.2	8.1	8.1	8.2	8.0	6.6	6.2	6.2	5.8	6.0	24	8.2
2	6.7	6.6	6.1	6.7	6.9	7.5	7.5	8.1	7.5	5.6	4.3	4.2	3.9	3.9	3.8	3.6	4.2	5.6	5.2	6.6	8.2	9.4	9.6	15.2	24	15.2
3	16.3	15.0	13.5	13.5	15.4	14.5	11.4	12.9	11.9	9.4	9.4	7.0	8.6	AZ	AZ	5.8	6.1	6.1	9.8	10.7	11.2	10.4	11.1	11.5	22	16.3
4	9.6	8.9	10.0	12.2	15.7	18.0	18.2	14.8	11.5	11.3	11.0	10.8	10.4	9.8	9.0	9.3	10.5	11.5	12.8	13.5	13.5	13.3	12.6	10.8	24	18.2
5	10.7	10.9	11.1	11.5	11.4	11.5	11.0	11.1	11.3	11.8	11.3	12.2	12.9	12.2	12.7	13.8	13.7	13.5	13.4	11.3	9.8	10.1	10.9	10.1	24	13.8
6	10.2	9.5	9.3	9.0	12.0	10.2	9.2	9.8	9.4	8.8	8.6	6.9	6.6	7.8	7.5	7.1	6.8	6.3	5.3	5.3	5.7	6.3	6.6	6.2	24	12.0
7	5.7	5.9	6.3	6.2	6.2	6.3	6.5	6.9	6.9	6.9	6.4	5.9	4.8	4.3	4.5	3.7	3.9	3.8	5.0	7.2	9.2	7.5	7.3	7.3	24	9.2
8	6.4	5.6	4.9	4.5	4.7	4.3	4.4	4.7	4.8	4.2	4.3	3.8	3.7	3.4	3.5	3.3	3.5	3.4	3.4	3.3	3.1	2.2	1.9	2.0	24	6.4
9	1.9	1.8	1.8	1.7	2.0	2.5	3.5	4.9	4.0	4.3	4.1	3.8	3.3	3.6	4.4	3.6	3.9	4.5	5.2	5.4	5.7	5.8	6.1	5.2	24	6.1
10	4.9	4.6	4.7	4.8	4.8	4.9	5.3	6.2	5.3	5.0	5.4	4.9	4.1	3.8	3.7	2.7	2.3	2.2	2.2	2.6	3.0	3.1	3.0	2.4	24	6.2
11	2.4	2.3	2.3	2.3	2.5	2.6	3.0	4.3	3.7	3.4	3.7	4.1	4.7	5.9	6.6	6.9	6.0	6.2	5.5	5.3	5.6	5.0	4.3	3.9	24	6.9
12	3.9	3.9	3.8	4.3	4.6	4.5	4.3	3.0	1.8	4.5	4.9	6.0	9.2	7.0	9.3	8.3	7.7	7.8	6.8	6.3	5.3	4.0	3.5	3.3	24	9.3
13	3.0	2.7	2.5	2.5	2.5	2.5	2.6	2.7	2.8	2.5	2.6	2.3	2.2	2.3	2.5	2.3	2.5	2.6	3.5	6.1	3.9	3.6	4.7	3.5	24	6.1
14	3.9	3.9	3.6	3.8	4.2	4.0	4.2	3.7	3.5	3.7	4.1	3.9	4.3	4.6	5.1	5.2	5.3	5.2	5.0	5.1	5.1	5.5	5.3	4.9	24	5.5
15	4.5	4.3	4.1	4.2	4.8	4.2	4.1	4.0	4.1	4.3	4.4	4.5	4.4	4.7	4.9	5.6	5.8	6.2	6.1	5.9	5.5	4.7	4.3	4.8	24	6.2
16	4.6	4.3	4.4	4.2	3.9	3.3	3.0	3.9	4.0	3.7	3.5	3.7	3.6	3.8	3.4	3.0	2.8	3.7	4.9	4.7	4.6	5.5	5.0	4.9	24	5.5
17	4.2	3.8	3.9	4.2	4.1	4.1	4.3	4.0	3.4	3.2	3.2	2.9	2.8	2.7	2.4	2.2	3.2	3.2	3.7	3.1	5.0	3.5	3.3	3.1	24	5.0
18	3.1	3.3	3.5	3.7	3.6	3.7	3.7	3.9	3.9	3.7	3.9	3.8	4.2	4.3	3.1	3.5	5.4	6.2	7.7	6.8	6.3	7.4	7.1	9.6	24	9.6
19	9.1	10.6	12.2	11.3	13.8	9.7	9.7	12.0	12.4	11.5	10.4	9.5	8.2	8.1	8.3	6.8	5.7	5.8	6.2	5.9	6.0	6.7	8.5	9.0	24	13.8
20	6.9	5.8	5.2	4.4	4.3	4.9	5.4	5.3	5.5	5.6	6.0	6.2	5.9	5.8	5.8	5.7	5.8	5.5	5.7	6.4	7.3	7.8	7.0	7.1	24	7.8
21	7.1	7.2	7.2	6.9	6.7	6.8	6.8	7.0	7.1	6.7	5.2	4.3	3.6	3.4	3.3	3.1	2.8	2.7	3.4	3.6	4.1	5.4	4.4	4.4	24	7.2
22	4.3	4.3	4.2	4.0	4.2	4.2	4.8	5.2	5.2	5.6	6.7	6.6	6.1	6.1	5.6	5.7	5.5	5.2	5.4	5.4	5.6	5.8	6.7	7.8	24	7.8
23	7.9	7.1	8.0	8.9	9.1	10.7	12.3	10.0	9.8	10.0	9.1	7.6	7.6	7.8	7.8	7.9	9.4	10.1	10.5	10.3	9.8	8.8	7.6	7.0	24	12.3
24	5.8	5.1	3.8	1.9	1.4	.8	.7	.7	1.1	1.0	1.3	1.5	1.3	1.2	1.4	2.4	3.7	2.2	3.1	3.1	3.6	3.0	3.1	4.1	24	5.8
25	4.2	3.4	2.9	2.8	2.8	2.8	3.4	3.4	3.7	2.9	2.0	1.6	1.1	1.0	2.2	2.4	2.1	1.8	2.8	3.0	3.5	3.5	4.3	5.2	24	5.2
26	4.2	2.3	1.2	1.6	3.1	5.2	7.0	8.5	7.3	5.8	5.7	5.8	5.7	5.5	5.4	6.6	8.6	7.7	7.7	7.2	7.1	7.2	7.3	7.1	24	8.6
27	6.5	5.3	5.3	3.2	2.0	1.4	.9	.6	.3	.4	.4	.3	.4	.5	.4	.7	.8	.8	.9	.8	.8	1.0	1.2	1.7	24	6.5
28	2.8	2.5	2.3	2.2	2.0	1.9	1.1	.7	.7	1.2	1.2	1.3	1.4	2.0	4.8	5.9	6.1	6.3	6.8	8.7	9.7	8.2	8.4	8.1	24	9.7
29	8.0	7.9	7.8	7.2	7.4	7.2	7.2	8.8	9.5	10.3	10.0	10.0	8.5	7.2	6.7	6.2	5.7	5.6	6.0	6.4	6.4	6.3	7.6	16.1	24	16.1
30	7.4	5.8	5.6	5.3	5.3	5.1	5.4	5.3	3.9	4.0	4.2	4.2	4.0	AZ	3.5	2.6	2.9	4.7	4.3	4.5	4.8	2.6	2.0	3.3	23	7.4
31	6.8	6.7	6.7	6.9	8.1	8.7	9.0	9.3	9.3	6.0	4.4	4.2	4.9	4.4	4.4	4.6	4.3	4.1	5.8	7.0	6.7	6.0	8.4	6.7	24	9.3
NO.:	31	31	31	31	31	31	31	31	31	31	31	31	31	29	30	31	31	31	31	31	31	31	31	31		
MAX:	16.3	15.0	13.5	13.5	15.7	18.0	18.2	14.8	12.4	11.8	11.3	12.2	12.9	12.2	12.7	13.8	13.7	13.5	13.4	13.5	13.5	13.3	12.6	16.1		
AVG:	6.07	5.71	5.60	5.54	5.97	5.90	5.96	6.15	5.83	5.56	5.37	5.13	5.11	4.96	5.14	5.12	5.33	5.44	5.87	6.07	6.20	5.99	6.09	6.53		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 5.70 MONTHLY MAX: 18.2

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: FEBRUARY 2024

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

DAY	HOUR 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	6.4	6.6	7.5	10.0	9.6	9.6	12.3	14.3	11.7	7.7	5.5	3.9	3.7	3.6	3.3	3.8	4.1	4.7	5.1	5.4	5.0	4.5	4.3	4.3	24	14.3
2	4.2	4.3	4.3	4.6	4.7	4.6	5.3	5.3	6.0	6.5	7.2	6.5	8.6	8.0	7.1	7.7	7.3	5.7	6.6	9.4	13.7	14.5	17.6	15.7	24	17.6
3	16.3	16.7	16.8	17.4	21.0	17.0	18.0	18.4	15.7	14.7	13.7	13.0	10.7	8.3	7.1	6.7	7.7	8.3	17.5	39.2	16.8	12.4	11.9	15.4	24	39.2
4	14.8	15.0	14.7	14.9	16.0	17.5	16.6	14.6	12.6	10.6	8.3	6.9	5.7	4.5	4.3	4.6	4.9	4.3	3.8	3.8	4.1	4.7	5.6	9.0	24	17.5
5	10.6	8.6	7.6	6.5	6.5	6.2	6.4	6.5	7.2	6.9	8.1	7.9	6.6	6.9	7.2	6.5	5.5	4.9	5.1	4.5	4.3	4.1	4.5	5.1	24	10.6
6	5.5	5.9	5.5	5.4	5.4	5.8	5.7	6.3	6.5	7.4	AZ	6.7	6.9	6.8	6.1	4.8	4.8	5.5	4.9	4.4	6.5	8.0	9.8	9.0	23	9.8
7	9.4	8.5	8.6	7.2	6.7	7.7	8.0	8.6	7.4	6.6	5.4	4.3	3.3	2.8	2.8	2.7	3.2	5.2	6.5	4.9	5.1	6.4	7.6	8.4	24	9.4
8	8.1	8.0	7.5	7.2	7.3	7.9	7.9	7.2	6.9	6.6	6.3	6.1	5.2	6.1	14.0	13.0	7.9	9.0	11.5	10.0	11.0	10.1	9.0	8.6	24	14.0
9	8.8	8.6	7.8	7.3	7.1	6.9	6.4	5.8	5.3	5.3	5.8	4.9	5.9	5.6	5.6	5.7	5.7	6.2	6.3	6.7	6.1	6.0	6.0	6.2	24	8.8
10	6.4	6.1	5.2	5.0	5.0	5.2	5.4	5.2	3.0	3.1	3.4	2.7	2.8	3.3	5.3	5.9	5.7	7.0	8.0	5.5	5.9	5.5	4.6	3.6	24	8.0
11	4.2	6.3	8.0	7.8	7.2	5.7	4.3	4.9	6.3	7.0	6.8	6.1	6.6	7.5	7.8	6.2	5.8	5.8	5.7	5.3	5.2	5.0	5.8	5.8	24	8.0
12	6.3	7.5	8.3	8.9	9.4	8.4	8.1	8.5	7.7	7.3	7.8	5.9	3.7	2.3	3.3	3.8	4.9	3.1	2.9	2.3	1.8	2.9	3.1	3.3	24	9.4
13	4.2	5.3	5.5	5.7	6.0	6.0	6.6	7.0	5.8	5.9	5.5	5.1	5.1	4.9	5.1	4.2	3.9	4.3	3.8	4.1	4.2	4.1	4.1	3.7	24	7.0
14	3.5	3.8	4.1	4.3	4.3	4.6	5.0	5.1	4.6	3.7	3.3	3.1	3.1	2.9	2.9	2.9	2.9	3.3	4.8	4.2	3.7	4.0	3.4	3.5	24	5.1
15	3.4	3.3	3.4	3.6	3.8	4.1	4.7	5.1	5.8	6.6	6.7	6.5	6.6	6.4	6.2	6.0	6.7	6.5	6.4	7.1	10.0	11.2	9.7	8.5	24	11.2
16	10.9	11.5	11.1	10.5	9.0	8.3	8.4	8.1	7.4	6.6	6.0	5.0	4.9	5.2	5.1	5.4	6.0	7.1	6.8	6.8	7.6	7.2	4.7	4.7	24	11.5
17	4.9	4.5	4.2	3.8	4.6	5.7	6.2	7.7	8.3	8.3	7.8	7.4	7.7	8.1	8.2	7.7	7.0	6.9	6.8	6.3	5.6	5.0	5.1	5.4	24	8.3
18	5.9	6.3	8.1	7.7	6.5	6.3	6.4	6.4	6.2	6.1	5.4	4.2	3.5	3.1	2.8	2.8	2.8	4.4	3.6	3.5	3.9	4.6	5.4	5.2	24	8.1
19	5.1	5.2	5.8	5.9	6.1	6.4	6.4	6.9	7.1	6.6	6.1	6.9	5.8	5.4	5.9	6.1	6.2	7.0	7.5	8.1	12.4	9.8	7.0	9.0	24	12.4
20	13.0	10.8	7.7	8.2	9.4	7.5	7.5	9.3	10.9	16.4	15.0	13.0	9.4	AZ	8.0	6.4	6.1	6.1	6.8	8.3	8.8	9.4	9.0	10.6	23	16.4
21	9.0	9.2	10.6	10.7	9.6	10.3	10.3	10.9	12.2	15.8	15.4	12.9	9.1	7.9	6.4	5.7	6.1	5.3	4.9	5.9	5.3	4.5	4.2	5.6	24	15.8
22	8.9	11.9	13.6	8.9	7.8	6.4	4.3	4.3	3.8	3.9	3.9	4.1	4.8	5.2	5.7	6.1	6.0	6.4	6.4	7.1	7.2	4.4	5.0	5.4	24	13.6
23	6.4	9.7	10.4	11.7	15.4	17.2	14.2	13.8	12.5	8.6	6.0	5.4	5.0	3.1	2.7	1.9	2.2	1.5	2.2	4.1	3.6	2.8	2.6	2.2	24	17.2
24	2.5	3.2	8.5	15.8	14.1	11.5	9.6	8.5	5.3	4.2	4.4	4.4	5.1	5.1	5.2	5.4	4.9	5.0	5.5	7.6	7.0	6.3	6.6	6.9	24	15.8
25	6.9	6.6	7.1	7.7	8.1	7.5	7.2	7.7	6.5	5.8	6.1	6.0	5.2	4.8	4.7	4.5	5.1	4.8	4.3	5.3	6.0	5.0	4.9	6.8	24	8.1
26	7.8	7.6	8.6	7.7	7.1	6.6	6.5	6.7	7.1	8.3	8.2	9.4	11.5	10.9	11.2	13.4	14.3	12.5	11.9	10.5	9.2	9.9	9.5	8.4	24	14.3
27	8.7	8.4	8.5	8.7	8.7	7.7	7.0	7.0	7.5	8.8	9.5	9.5	9.0	8.5	8.4	8.4	8.3	8.8	8.7	8.7	8.3	7.4	7.6	8.5	24	9.5
28	9.7	11.0	12.1	13.0	13.2	12.6	7.0	7.8	5.0	3.6	3.5	2.8	2.6	2.6	2.9	3.2	3.2	3.2	2.8	3.3	3.4	3.5	3.6	4.0	24	13.2
29	3.5	3.4	3.1	3.0	3.2	3.5	3.5	3.1	3.0	2.8	2.7	2.1	2.0	1.9	2.4	2.1	3.0	5.6	9.0	10.8	6.1	21.3	11.6	6.4	24	21.3
30																									0	
31																									0	
NO.:	29	29	29	29	29	29	29	29	29	29	28	29	29	28	29	29	29	29	29	29	29	29	29	29		
MAX:	16.3	16.7	16.8	17.4	21.0	17.5	18.0	18.4	15.7	16.4	15.4	13.0	11.5	10.9	14.0	13.4	14.3	12.5	17.5	39.2	16.8	21.3	17.6	15.7		
AVG:	7.42	7.72	8.08	8.24	8.37	8.09	7.77	7.97	7.42	7.30	6.92	6.30	5.87	5.42	5.78	5.64	5.59	5.81	6.42	7.35	6.82	7.05	6.68	6.87		

MONTHLY OBSERVATIONS: 694 MONTHLY MEAN: 6.96 MONTHLY MAX: 39.2

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MARCH 2024

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

DAY	HOUR 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	7.2	7.7	8.5	9.1	9.0	7.9	7.7	6.1	5.3	5.7	7.2	9.2	10.2	11.2	12.7	13.2	12.3	11.4	11.8	11.3	11.8	10.7	11.3	10.4	24	13.2
2	11.6	10.9	10.6	11.7	12.1	12.3	12.8	13.2	14.4	15.0	14.6	13.0	11.8	10.8	10.5	17.4	26.2	49.5	23.6	21.1	9.3	8.9	9.5	10.1	24	49.5
3	8.4	7.6	6.9	7.1	6.9	6.8	6.7	6.9	6.9	7.4	7.0	6.6	5.8	6.2	7.4	8.2	8.0	9.8	12.8	9.6	9.7	7.2	7.3	8.0	24	12.8
4	9.4	8.8	8.7	8.1	7.7	10.4	8.6	8.2	7.7	7.2	6.1	6.3	6.7	6.6	6.3	6.0	15.5	8.9	8.3	10.3	6.4	4.6	4.4	4.0	24	15.5
5	3.4	3.5	4.3	4.8	5.5	6.2	7.0	7.5	7.1	6.3	3.9	2.1	2.0	2.5	AZ	2.6	2.5	3.0	3.8	4.0	4.1	3.7	3.8	4.3	23	7.5
6	4.4	4.9	5.6	5.2	8.1	13.4	17.8	15.0	8.2	12.7	12.1	12.3	10.4	10.5	11.6	12.1	12.7	13.4	13.1	12.3	11.0	10.2	11.2	9.3	24	17.8
7	8.0	7.2	6.5	7.1	7.5	7.6	8.4	7.7	6.8	6.1	6.0	6.3	6.5	6.2	6.2	6.6	6.5	6.2	6.2	6.5	7.1	8.2	9.8	11.6	24	11.6
8	10.7	9.2	8.7	8.8	7.2	7.7	7.6	5.5	5.2	6.0	5.8	4.4	4.3	4.4	4.3	4.4	4.6	4.7	4.1	4.0	3.9	4.2	4.6	5.1	24	10.7
9	6.3	6.2	5.1	5.2	4.7	3.6	2.9	3.1	3.6	4.1	4.1	3.1	3.8	4.9	3.9	4.8	4.4	3.7	6.1	9.4	7.7	6.7	6.1	4.2	24	9.4
10	3.8	4.0	4.0	4.0	3.9	3.4	3.6	3.8	4.0	4.1	4.7	5.1	4.9	3.9	4.1	3.6	3.2	2.9	3.0	3.8	5.3	5.7	5.1	4.9	24	5.7
11	4.8	4.7	4.5	4.6	4.8	4.6	5.0	3.7	3.1	2.6	2.7	3.2	3.4	3.4	3.3	3.5	3.4	4.2	4.1	6.4	9.2	8.2	4.0	3.1	24	9.2
12	3.6	4.3	6.3	6.2	4.8	5.5	6.4	8.5	6.8	5.4	4.8	6.4	9.3	10.4	13.0	13.5	14.5	6.0	3.9	4.0	7.9	10.2	8.1	7.9	24	14.5
13	6.1	6.0	5.7	6.0	6.3	6.6	6.9	7.4	7.8	6.7	6.8	6.3	5.6	5.8	6.1	6.2	5.8	7.7	8.5	12.3	11.5	13.2	19.4	17.0	24	19.4
14	15.3	13.5	11.4	10.1	9.2	8.2	7.3	6.2	5.5	5.8	6.6	6.7	6.6	6.9	7.5	7.1	7.9	7.7	8.1	9.4	11.4	13.7	11.2	3.3	24	15.3
15	3.2	3.0	2.6	3.0	2.9	3.2	3.4	3.2	2.9	2.7	2.7	2.6	2.7	2.5	7.4	13.2	11.2	11.2	8.5	8.5	10.8	9.0	7.1	6.7	24	13.2
16	7.5	9.1	10.1	11.3	11.3	11.6	12.9	18.0	20.2	11.2	6.7	6.1	7.1	5.4	4.2	2.9	3.0	3.2	4.0	4.3	4.3	4.4	4.6	4.5	24	20.2
17	3.9	3.9	3.8	3.9	3.9	4.1	4.4	5.0	5.3	4.8	4.3	3.1	2.7	2.9	2.9	2.7	2.6	3.1	3.3	3.9	3.7	4.1	4.0	3.9	24	5.3
18	3.7	3.5	3.2	3.1	3.3	3.6	4.0	3.9	3.8	AZ	3.6	3.6	3.7	3.2	3.3	2.9	3.2	3.6	3.9	4.1	4.6	10.2	6.3	5.2	23	10.2
19	4.9	6.4	7.9	5.5	5.4	5.9	6.3	7.1	8.2	6.5	9.4	6.9	7.6	7.1	5.5	4.1	4.7	7.5	5.0	7.7	4.7	4.6	5.0	6.0	24	9.4
20	6.3	7.0	8.2	8.4	9.1	9.4	10.5	10.0	10.4	9.6	8.7	8.5	8.9	9.8	8.4	7.7	7.3	6.0	5.8	5.9	6.4	6.8	7.2	7.7	24	10.5
21	7.9	9.1	9.8	10.9	11.8	12.8	23.9	26.7	25.0	20.9	17.2	12.5	9.8	10.4	8.9	12.0	16.3	17.0	9.6	10.0	13.0	16.8	29.3	37.5	24	37.5
22	20.0	18.5	20.8	34.6	31.1	26.0	24.9	31.0	31.3	28.4	29.9	21.6	17.4	17.2	13.4	13.9	14.2	14.0	16.8	21.9	25.1	26.5	24.3	24.4	24	34.6
23	27.9	26.3	13.2	13.2	17.6	22.0	22.1	21.1	20.7	21.2	19.4	17.1	15.5	14.1	13.7	12.6	11.1	9.4	9.4	9.8	11.2	11.9	11.5	12.0	24	27.9
24	11.5	11.2	11.0	10.7	9.9	9.5	8.7	8.1	7.4	6.3	5.2	4.6	4.0	4.1	3.9	3.7	3.9	4.5	4.7	8.5	9.1	10.1	8.9	7.6	24	11.5
25	8.8	9.4	8.9	8.2	8.6	9.9	10.3	8.9	8.0	8.2	8.2	8.0	7.7	7.7	7.3	7.3	6.6	6.3	5.8	5.5	5.2	1.6	1.5	2.0	24	10.3
26	2.7	2.2	2.2	2.8	3.4	4.6	4.8	5.1	3.7	2.6	2.8	3.2	3.2	2.7	2.0	1.7	1.8	2.2	2.5	3.2	3.1	3.0	2.9	2.8	24	5.1
27	2.7	2.8	3.1	3.4	4.1	4.5	4.7	4.8	4.8	4.7	4.8	4.9	5.1	4.5	4.1	3.9	3.8	3.7	3.8	4.6	5.1	5.6	6.6	7.5	24	7.5
28	7.3	7.4	7.2	7.3	7.7	8.8	8.8	7.5	6.6	5.5	4.4	4.7	5.3	5.7	6.5	5.3	4.5	4.9	5.0	5.1	6.0	5.8	5.7	4.9	24	8.8
29	4.7	4.7	4.7	4.7	5.0	5.5	6.4	4.9	4.2	5.2	4.9	4.6	4.6	4.7	5.0	4.5	6.3	4.1	4.4	8.8	6.5	5.6	5.3	6.6	24	8.8
30	7.6	8.2	8.8	8.4	7.3	6.1	5.2	4.9	4.6	4.4	4.3	4.4	4.5	4.4	4.1	4.5	4.5	4.2	4.4	4.5	4.7	5.1	5.3	5.6	24	8.8
31	5.7	5.9	5.8	6.1	6.0	6.1	6.2	6.2	6.5	6.5	6.3	6.1	6.1	6.3	6.3	6.5	6.8	8.5	21.0	12.8	8.1	9.1	8.4	8.7	24	21.0
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:	27.9	26.3	20.8	34.6	31.1	26.0	24.9	31.0	31.3	28.4	29.9	21.6	17.4	17.2	13.7	17.4	26.2	49.5	23.6	21.9	25.1	26.5	29.3	37.5		
AVG:	7.72	7.65	7.36	7.85	7.94	8.32	8.91	9.01	8.58	8.13	7.59	6.89	6.68	6.66	6.79	7.05	7.72	8.15	7.59	8.18	8.00	8.25	8.38	8.28		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 7.82 MONTHLY MAX: 49.5

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: APRIL 2024

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	9.6	9.1	9.4	9.5	9.7	9.9	9.4	10.7	10.6	11.1	12.1	13.2	14.3	14.4	14.3	13.4	13.4	13.5	14.5	16.7	16.4	15.0	15.2	14.4	24	16.7
2	14.3	14.3	14.7	15.1	15.5	14.9	14.3	14.9	14.3	12.0	10.6	10.6	10.3	11.0	11.9	10.0	5.8	5.3	4.2	3.8	3.3	2.4	1.5	1.0	24	15.5
3	1.2	1.5	1.8	2.0	2.4	2.7	3.1	3.4	3.6	3.5	2.9	BL	BL	2.9	3.0	2.8	3.0	3.0	3.1	3.1	3.3	3.2	3.2	3.2	22	3.6
4	3.1	3.1	3.1	3.2	3.3	3.4	3.5	3.7	AZ	3.8	3.2	3.2	3.3	3.2	3.2	3.2	3.3	3.3	3.8	4.9	5.5	5.1	3.6	2.2	23	5.5
5	2.5	2.8	2.9	3.0	3.0	3.3	3.8	3.4	3.0	3.3	4.3	3.8	3.0	3.2	3.4	3.4	3.3	3.7	3.0	3.2	3.8	5.0	4.4	3.6	24	5.0
6	3.4	3.7	3.7	3.5	3.3	3.4	3.6	3.8	5.0	3.9	3.9	4.0	3.8	4.0	4.0	4.3	4.4	4.7	6.1	6.5	10.6	14.4	33.4	58.8	24	58.8
7	40.7	37.5	10.0	7.7	9.2	9.9	10.1	9.5	10.5	10.4	9.0	9.1	8.7	8.4	8.5	8.9	9.1	9.1	9.1	9.1	9.1	8.5	9.4	7.6	24	40.7
8	8.9	8.5	8.7	9.6	8.9	6.9	5.9	5.3	6.0	5.8	7.2	9.6	11.2	10.9	11.2	7.5	8.7	8.7	8.8	9.5	10.2	10.3	9.4	8.5	24	11.2
9	6.1	4.9	3.9	3.2	2.8	2.7	3.0	4.1	4.2	4.1	4.2	4.6	5.4	6.0	6.5	5.6	5.5	5.9	6.1	6.0	5.9	3.5	3.2	3.7	24	6.5
10	4.0	4.3	4.8	4.7	3.7	3.0	2.4	2.4	2.4	2.5	2.6	3.0	3.3	3.2	5.3	5.9	4.2	4.2	4.9	5.1	5.6	6.1	6.6	7.3	24	7.3
11	8.0	8.0	7.9	4.1	2.6	1.3	.9	1.8	2.9	3.3	3.6	3.8	4.7	5.3	5.2	3.1	2.3	2.1	2.1	2.2	2.2	2.6	2.8	2.9	24	8.0
12	3.2	3.4	3.4	3.5	3.6	3.8	3.7	3.4	3.1	2.9	2.0	2.0	2.1	2.2	2.2	2.5	2.7	2.9	2.9	3.0	3.5	4.1	3.5	3.6	24	4.1
13	3.7	3.7	4.9	5.0	4.3	4.3	4.1	3.8	4.0	4.5	4.8	5.6	8.0	8.1	7.0	5.7	4.9	5.1	6.0	8.7	11.8	10.9	8.1	7.2	24	11.8
14	5.8	5.4	5.3	5.3	5.6	5.6	5.4	5.0	5.3	5.5	5.6	5.2	5.1	5.2	5.0	5.1	5.3	5.0	5.3	5.3	5.2	5.3	5.1	5.4	24	5.8
15	5.6	6.3	5.7	5.6	6.8	8.4	9.0	9.1	8.7	7.8	6.9	8.2	8.4	8.6	9.0	9.6	8.3	6.6	6.5	7.1	6.3	6.5	7.3	7.0	24	9.6
16	6.5	6.6	6.9	9.1	9.2	8.8	7.9	7.3	7.5	6.5	6.0	6.4	6.7	6.7	6.8	7.4	7.4	8.3	8.5	8.4	8.8	9.3	9.3	8.8	24	9.3
17	8.2	8.1	8.0	7.6	8.0	8.2	8.7	8.9	9.4	10.0	AZ	AZ	13.3	13.1	13.0	12.6	12.5	12.1	12.5	12.5	11.6	11.7	11.2	10.9	22	13.3
18	11.8	11.8	12.5	12.8	12.4	12.5	13.5	13.4	13.8	14.5	15.0	14.2	12.2	11.4	11.9	10.0	8.9	9.1	9.3	9.4	8.9	9.4	8.8	8.7	24	15.0
19	8.7	9.6	10.0	7.5	4.0	4.5	4.3	4.3	4.6	5.1	6.2	6.4	5.3	4.7	5.0	5.4	6.2	7.2	7.0	7.3	7.7	7.5	7.0	6.8	24	10.0
20	5.3	3.3	3.1	3.0	3.1	3.3	3.2	3.2	3.4	3.7	3.6	3.6	3.7	3.7	3.7	3.8	3.9	3.8	3.9	3.3	3.1	3.0	3.0	3.0	24	5.3
21	2.9	3.1	3.1	3.2	3.5	3.4	3.1	3.1	3.0	2.9	3.0	3.4	3.7	3.6	3.4	3.6	3.6	3.8	3.8	4.3	4.5	5.1	6.7	6.5	24	6.7
22	7.8	7.5	6.3	7.4	6.7	5.9	6.4	5.7	4.3	4.1	4.3	4.5	4.3	AZ	4.6	4.4	4.3	5.1	5.6	5.5	4.9	4.9	4.6	4.6	23	7.8
23	4.6	4.4	4.4	4.7	4.7	4.9	4.9	4.8	4.5	4.5	4.5	4.7	5.5	6.9	6.2	5.9	5.9	6.2	6.7	6.4	6.7	6.6	6.1	5.8	24	6.9
24	5.6	5.7	5.7	6.0	6.2	6.8	7.8	7.5	7.4	6.8	6.0	4.8	5.0	5.3	5.4	5.1	5.2	5.8	6.4	6.0	6.4	6.0	5.6	5.7	24	7.8
25	5.0	5.0	5.1	5.5	5.7	6.2	6.3	6.0	5.8	5.5	5.9	6.0	7.2	7.0	7.7	7.2	7.1	6.3	6.4	6.6	7.0	6.3	6.4	6.4	24	7.7
26	7.0	7.4	8.8	9.5	10.2	11.4	11.7	12.1	11.0	8.8	8.1	6.1	5.8	5.4	6.3	11.7	11.4	11.9	12.9	11.7	12.7	14.9	12.6	4.7	24	14.9
27	4.2	6.5	6.8	6.3	9.5	11.3	9.5	9.1	8.5	8.7	9.2	10.3	11.3	11.8	12.3	12.3	12.0	12.6	13.1	13.4	13.8	14.3	13.7	12.9	24	14.3
28	10.7	8.6	8.1	7.3	7.3	7.4	8.2	9.1	9.3	8.7	8.7	8.5	8.6	8.2	7.9	8.7	8.9	9.5	9.5	10.2	10.3	10.4	10.4	10.4	24	10.7
29	10.3	9.4	5.4	4.6	4.5	5.2	9.1	10.4	10.0	8.6	9.1	8.7	7.9	4.7	2.8	2.4	2.1	2.0	2.0	2.4	3.2	3.1	3.0	3.2	24	10.4
30	3.3	3.0	3.0	3.2	3.1	3.5	3.2	3.4	3.2	3.4	3.3	3.2	3.2	3.3	3.2	3.3	3.3	3.3	3.5	4.1	4.5	4.3	4.6	4.6	24	4.6
31																									0	
NO.:	30	30	30	30	30	30	30	30	29	30	29	28	29	29	30	30	30	30	30	30	30	30	30	30		
MAX:	40.7	37.5	14.7	15.1	15.5	14.9	14.3	14.9	14.3	14.5	15.0	14.2	14.3	14.4	14.3	13.4	13.4	13.5	14.5	16.7	16.4	15.0	33.4	58.8		
AVG:	7.40	7.22	6.25	6.09	6.09	6.23	6.33	6.42	6.53	6.21	6.06	6.31	6.73	6.63	6.66	6.49	6.23	6.34	6.58	6.86	7.23	7.32	7.66	7.98		

MONTHLY OBSERVATIONS: 714 MONTHLY MEAN: 6.66 MONTHLY MAX: 58.8

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: MAY 2024

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

DAY	HOUR 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	4.8	4.6	4.9	4.9	4.9	5.2	5.1	5.3	5.8	4.1	4.3	4.5	4.5	4.7	4.7	4.7	4.5	4.6	4.9	5.5	6.2	6.7	7.8	8.9	24	8.9
2	8.3	8.2	8.2	8.1	8.6	9.1	10.3	9.8	9.0	8.3	8.2	7.7	7.9	7.6	8.0	7.7	7.6	6.1	6.0	6.1	6.1	6.1	5.9	5.9	24	10.3
3	6.2	6.2	6.6	6.9	7.2	7.0	7.2	AZ	5.8	6.0	6.2	5.0	5.0	4.2	4.4	4.9	5.7	7.0	8.1	9.0	9.0	8.9	8.4	7.7	23	9.0
4	7.6	7.0	6.4	5.4	4.5	4.1	3.9	3.9	3.7	3.6	3.7	3.7	3.7	3.8	4.2	4.2	4.7	4.4	4.4	4.7	5.7	5.8	5.8	7.6	24	7.6
5	7.1	7.1	7.2	6.9	7.2	7.5	7.7	5.8	4.5	4.6	4.6	4.7	5.2	6.4	4.7	4.4	4.5	5.0	5.6	5.7	6.0	6.2	6.6	4.9	24	7.7
6	4.1	4.1	4.1	4.2	4.2	4.4	4.3	5.9	7.4	8.1	8.4	8.3	8.0	7.2	7.1	6.7	6.4	6.9	7.1	7.0	6.9	7.2	7.9	8.2	24	8.4
7	8.4	8.5	8.9	9.4	10.0	10.2	10.1	9.0	8.6	9.4	10.5	11.6	12.9	13.5	13.8	14.2	13.8	13.5	13.2	13.1	13.0	12.6	12.1	11.2	24	14.2
8	10.5	10.5	10.7	10.7	11.0	10.7	10.7	11.0	11.2	13.7	16.6	18.3	17.9	18.7	18.0	21.8	23.6	18.8	16.3	14.6	14.3	14.5	13.9	11.3	24	23.6
9	9.3	9.5	9.8	9.2	7.3	9.3	8.9	9.3	9.3	9.5	9.3	9.1	8.8	7.8	6.5	5.8	5.1	4.7	4.6	4.4	4.4	4.2	4.2	3.3	24	9.8
10	3.4	3.5	3.1	3.1	3.2	3.2	3.2	3.3	3.0	3.1	2.9	2.9	3.0	3.4	3.1	3.0	3.1	3.1	3.2	3.4	4.4	6.0	5.5	4.8	24	6.0
11	5.7	6.4	7.0	7.8	6.9	5.4	4.8	4.8	4.1	3.8	3.7	3.6	4.0	4.3	4.3	5.0	5.0	5.1	6.0	8.8	8.4	8.4	8.6	9.0	24	9.0
12	8.7	9.9	7.7	7.3	6.9	6.6	6.2	6.4	6.4	6.4	6.4	6.0	6.5	6.7	6.9	6.5	6.7	7.5	8.2	8.7	9.0	8.5	8.1	7.2	24	9.9
13	6.7	6.8	6.9	7.3	7.5	7.8	7.9	8.3	8.0	8.4	8.9	9.4	8.4	8.2	8.1	7.8	7.5	7.5	7.6	7.8	7.8	7.8	7.6	8.1	24	9.4
14	7.0	7.2	8.1	7.5	7.4	8.0	8.8	9.9	8.1	5.7	6.6	6.5	5.0	5.2	4.3	3.9	3.9	4.4	4.6	5.8	5.1	8.6	4.1	3.7	24	9.9
15	4.0	4.2	5.0	5.8	6.3	6.3	5.5	5.4	5.8	5.3	5.9	7.9	6.9	6.4	5.3	5.0	4.6	4.6	4.8	5.5	6.2	6.5	6.0	5.9	24	7.9
16	6.1	6.7	7.8	7.9	9.2	9.4	9.8	9.5	7.8	7.1	6.5	6.1	6.0	6.4	6.7	6.7	7.1	7.2	7.8	8.2	8.5	8.6	10.3	11.0	24	11.0
17	9.8	9.8	7.7	7.5	8.3	7.9	7.6	8.2	7.5	AZ	6.4	6.7	6.6	6.3	6.0	5.9	5.7	5.5	5.7	6.0	7.1	7.7	8.3	8.7	23	9.8
18	9.9	10.1	11.1	10.9	10.0	5.6	3.7	3.2	3.6	3.7	3.7	3.5	3.5	3.0	3.3	2.9	2.4	2.2	2.6	3.1	3.4	3.5	3.4	4.0	24	11.1
19	4.8	5.0	4.5	4.4	4.4	4.4	4.1	4.4	5.2	6.2	6.4	6.1	5.9	6.2	6.1	6.1	5.7	5.1	5.0	5.6	5.6	6.1	6.7	7.2	24	7.2
20	7.5	7.5	7.7	7.1	7.2	7.5	7.8	7.5	7.0	6.6	5.7	5.8	6.0	6.1	6.2	6.4	6.8	6.8	7.1	7.7	9.0	9.9	10.1	10.2	24	10.2
21	10.4	11.2	10.9	11.3	11.1	10.5	9.7	10.0	9.8	9.8	9.8	10.0	9.4	9.6	9.2	9.2	8.4	7.9	8.1	8.6	8.4	8.9	9.0	8.7	24	11.3
22	9.4	12.3	12.4	10.7	10.7	10.4	8.8	8.0	7.2	7.4	8.4	9.7	9.1	9.9	10.7	9.7	8.4	7.1	6.9	7.3	8.9	7.3	6.8	6.9	24	12.4
23	7.3	8.5	8.9	9.1	9.3	9.2	9.1	12.1	6.6	5.1	4.4	4.0	3.4	2.7	2.7	4.1	6.8	7.5	5.8	4.9	5.2	5.4	6.2	6.5	24	12.1
24	6.5	6.2	6.5	6.9	7.5	8.6	9.1	9.5	10.2	10.8	11.5	10.2	8.5	7.9	8.2	9.7	9.4	11.7	6.3	7.5	14.0	16.4	16.6	17.4	24	17.4
25	10.7	4.6	4.5	4.8	5.1	5.5	5.5	5.8	6.1	6.2	6.8	7.6	7.9	8.7	8.7	9.4	10.2	10.9	13.6	15.6	15.9	15.6	16.1	17.6	24	17.6
26	18.9	19.4	20.0	19.9	18.1	15.5	13.9	13.5	13.6	14.0	13.8	13.5	14.5	16.3	15.2	15.1	14.5	14.3	13.6	13.0	12.8	14.0	14.7	15.9	24	20.0
27	12.5	12.5	11.7	13.5	15.5	15.0	14.5	11.9	9.4	7.7	6.6	6.1	5.9	5.7	4.8	5.1	5.1	4.7	4.3	4.5	4.7	5.5	6.6	6.5	24	15.5
28	6.7	6.3	6.0	5.5	5.6	5.7	5.2	4.2	3.6	3.4	2.8	2.9	3.5	3.0	2.8	3.0	3.3	3.0	3.1	3.4	4.1	3.9	3.9	4.0	24	6.7
29	4.3	4.6	5.4	5.3	5.6	6.4	6.4	5.7	3.6	3.2	3.0	3.0	3.1	3.3	3.3	3.5	3.9	5.0	5.0	5.1	5.0	4.8	4.7	4.8	24	6.4
30	4.7	4.7	4.3	4.0	4.0	4.0	3.9	3.9	3.7	4.0	4.2	4.1	4.1	4.3	4.4	4.5	4.6	4.8	5.2	5.1	4.9	5.1	5.5	5.6	24	5.6
31	5.8	6.2	6.9	7.7	7.5	8.3	8.1	7.6	8.8	8.5	8.8	9.0	8.6	9.0	8.4	AZ	7.9	7.2	6.1	6.8	7.5	9.4	9.9	8.1	23	9.9
NO.:	31	31	31	31	31	31	31	30	31	30	31	31	31	31	31	30	31	31	31	31	31	31	31	31		
MAX:	18.9	19.4	20.0	19.9	18.1	15.5	14.5	13.5	13.6	14.0	16.6	18.3	17.9	18.7	18.0	21.8	23.6	18.8	16.3	15.6	15.9	16.4	16.6	17.6		
AVG:	7.65	7.72	7.77	7.77	7.81	7.70	7.48	7.44	6.92	6.79	6.94	7.02	6.89	6.98	6.78	6.90	7.00	6.91	6.80	7.18	7.66	8.07	8.11	8.09		

MONTHLY OBSERVATIONS: 741 MONTHLY MEAN: 7.35 MONTHLY MAX: 23.6

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JUNE 2024

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

DAY	HOUR 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	7.1	7.3	7.6	7.8	9.3	10.0	9.7	8.9	7.6	5.9	5.7	5.3	5.1	5.1	4.3	4.0	4.2	4.8	4.5	5.3	5.4	6.9	6.0	6.0	24	10.0
2	6.2	6.5	6.8	7.5	7.1	6.6	6.4	6.0	5.1	4.7	5.0	5.5	6.3	6.0	5.9	6.0	6.1	5.9	5.9	7.7	8.0	8.3	7.8	8.2	24	8.3
3	8.1	8.8	8.8	8.8	9.2	9.5	9.4	8.7	8.5	8.7	9.3	8.7	6.7	4.7	5.5	5.1	5.5	5.8	5.8	5.8	5.8	6.5	7.2	7.3	24	9.5
4	7.7	7.4	7.7	6.7	3.8	3.9	3.6	3.3	3.6	3.4	3.8	5.1	3.7	5.1	5.4	6.4	5.8	5.1	5.3	5.7	6.4	6.5	6.4	6.5	24	7.7
5	6.1	4.9	4.5	4.7	4.5	3.8	3.6	3.7	5.6	6.8	6.2	6.2	7.1	5.8	4.5	3.4	3.2	3.5	3.8	4.1	4.2	4.7	5.5	6.1	24	7.1
6	6.2	5.8	6.3	6.1	5.7	6.0	5.9	6.6	7.0	7.6	7.3	7.9	7.6	6.5	4.9	3.7	3.0	3.0	3.0	3.5	4.6	3.7	3.3	3.1	24	7.9
7	3.2	3.2	3.4	3.4	3.5	3.7	3.9	3.9	4.2	4.2	4.3	3.7	3.4	3.4	3.5	4.5	4.6	4.1	4.3	5.5	6.2	6.1	6.6	6.3	24	6.6
8	6.1	7.1	6.0	5.6	6.6	7.6	7.9	5.7	5.2	4.8	4.8	4.2	4.4	4.5	4.6	4.9	5.1	5.5	5.1	6.1	7.1	6.4	6.1	5.8	24	7.9
9	5.8	5.8	6.1	6.2	6.6	6.4	5.9	5.9	6.5	7.1	8.3	7.2	7.2	8.2	8.9	10.2	6.4	4.3	3.9	4.3	4.4	4.3	4.4	4.1	24	10.2
10	3.9	3.2	3.0	3.2	3.6	3.9	3.8	3.5	3.3	3.7	4.1	4.2	4.3	4.0	3.8	3.9	3.8	3.7	3.7	3.8	4.1	4.4	4.5	4.8	24	4.8
11	5.1	5.1	4.8	5.0	4.9	4.8	4.8	5.1	5.0	5.4	6.1	5.6	5.8	6.4	5.7	5.8	5.8	5.2	5.2	5.4	5.7	6.4	6.6	6.7	24	6.7
12	7.8	7.7	7.2	6.7	6.5	6.2	6.4	5.6	5.1	4.9	4.8	4.8	4.7	4.8	AZ	5.1	5.1	4.7	4.7	5.2	5.6	6.8	9.6	9.5	23	9.6
13	7.9	8.1	7.7	8.0	9.5	8.9	7.2	6.7	6.9	6.3	5.5	5.7	6.0	6.3	6.2	6.1	6.6	7.1	6.2	6.5	7.4	8.2	8.6	8.6	24	9.5
14	9.0	9.2	9.2	8.6	9.0	11.3	10.9	8.4	9.0	AZ	AZ	BC	10.3	10.1	9.4	8.8	8.8	9.1	8.9	9.0	10.3	10.3	10.9	11.1	21	11.3
15	11.4	12.1	12.6	12.6	12.8	13.5	12.9	11.1	11.6	12.5	13.2	12.4	12.2	12.1	11.7	11.4	10.8	11.4	12.1	11.8	14.3	14.7	14.9	16.3	24	16.3
16	16.6	17.6	18.4	18.7	19.3	19.8	20.0	19.2	19.1	18.0	19.5	18.0	18.3	17.9	16.9	16.3	17.2	15.6	15.8	16.6	15.7	15.4	13.6	13.9	24	20.0
17	12.2	9.0	5.5	5.2	5.0	4.8	4.6	4.3	5.6	6.9	6.4	7.8	7.3	7.4	6.8	3.9	3.5	3.2	3.3	3.9	4.6	4.9	5.0	5.4	24	12.2
18	5.4	5.0	4.6	4.5	4.2	4.6	4.4	4.5	4.8	5.4	7.6	10.0	9.6	10.2	10.6	10.8	11.7	11.8	12.0	13.1	12.9	13.9	14.2	14.1	24	14.2
19	14.3	14.5	14.2	14.9	15.0	15.0	14.5	13.5	12.0	11.8	12.2	11.9	10.0	9.1	8.7	9.2	9.6	10.0	10.8	10.6	10.5	10.7	11.3	11.9	24	15.0
20	12.9	13.5	12.9	12.9	13.1	12.9	11.7	11.1	10.3	10.3	10.1	9.9	9.6	9.1	9.3	9.0	8.9	9.0	9.0	11.3	11.2	10.1	10.7	11.6	24	13.5
21	11.3	12.6	11.9	12.0	11.9	11.9	11.7	11.9	9.6	9.0	9.5	9.5	10.0	9.9	9.5	8.8	9.0	9.6	9.9	11.9	11.9	14.7	12.4	12.4	24	14.7
22	12.3	12.5	12.5	13.0	12.8	13.2	13.3	12.0	12.3	12.4	11.8	11.8	11.7	11.5	11.0	11.1	11.3	10.7	10.4	11.2	11.4	11.8	11.5	12.0	24	13.3
23	11.2	11.0	10.8	10.9	10.9	10.8	10.1	9.8	10.1	9.8	9.6	9.6	9.5	9.9	9.6	9.0	8.5	7.9	7.7	8.1	8.4	8.6	9.2	10.1	24	11.2
24	10.1	10.0	10.0	9.9	10.4	10.3	10.5	10.3	9.8	9.0	7.8	6.9	6.8	6.6	6.3	5.9	5.9	5.9	6.4	6.1	6.3	6.7	8.8	8.5	24	10.5
25	9.0	8.2	8.9	10.2	10.5	10.6	11.6	10.7	10.1	10.3	10.1	AZ	12.1	12.3	12.1	12.7	12.0	12.0	12.4	12.1	12.6	12.9	13.3	13.7	23	13.7
26	13.7	14.0	13.7	13.8	13.5	13.1	9.0	7.6	7.9	9.2	10.0	7.6	5.7	3.7	3.4	3.4	3.2	3.3	3.4	2.7	2.6	2.9	3.5	5.3	24	14.0
27	4.5	3.8	4.4	4.3	4.3	4.4	5.5	6.3	7.2	7.1	6.6	6.3	6.3	5.2	4.5	5.1	5.6	5.9	6.5	7.0	6.7	7.3	8.0	7.3	24	8.0
28	6.7	6.5	6.3	6.5	6.9	7.4	7.8	7.7	7.5	7.3	6.9	7.0	6.9	6.6	6.6	7.2	6.5	6.3	6.0	6.6	6.3	6.7	6.8	7.0	24	7.8
29	6.9	7.0	7.0	6.9	7.2	7.4	7.4	8.5	9.7	10.0	10.6	10.9	11.5	11.7	11.6	11.6	11.2	11.7	11.6	11.7	12.0	12.0	11.8	11.0	24	12.0
30	9.8	9.4	8.9	8.5	8.0	7.9	7.8	7.8	8.0	8.6	9.5	10.0	4.9	4.8	8.9	6.8	8.6	8.2	8.7	9.4	12.0	11.7	7.2	6.2	24	12.0
31																									0	
NO.:	30	30	30	30	30	30	30	30	30	29	29	28	30	30	29	30	30	30	30	30	30	30	30	30		
MAX:	16.6	17.6	18.4	18.7	19.3	19.8	20.0	19.2	19.1	18.0	19.5	18.0	18.3	17.9	16.9	16.3	17.2	15.6	15.8	16.6	15.7	15.4	14.9	16.3		
AVG:	8.62	8.56	8.39	8.44	8.52	8.67	8.41	7.94	7.94	7.97	8.16	7.99	7.83	7.63	7.59	7.34	7.25	7.14	7.21	7.73	8.15	8.48	8.52	8.69		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 8.05 MONTHLY MAX: 20.0

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: JULY 2024

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

DAY	HOUR 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	5.1	4.7	4.8	5.0	5.7	5.6	5.3	5.4	5.0	4.9	4.8	18.5	25.5	3.7	3.6	3.6	3.3	3.5	3.5	3.8	4.5	5.4	4.7	4.0	24	25.5
2	4.0	3.8	3.8	4.2	4.3	4.5	4.9	4.3	4.8	4.4	5.0	5.6	5.9	6.4	6.5	7.3	6.1	6.0	6.1	6.1	7.1	7.3	7.8	9.4	24	9.4
3	9.7	8.8	9.9	11.0	14.5	16.8	17.1	16.5	15.9	13.7	12.1	11.5	11.0	11.0	11.3	10.8	10.7	10.5	10.4	10.1	10.1	10.1	10.6	10.7	24	17.1
4	10.3	10.2	10.2	10.6	10.7	10.6	9.7	9.2	9.2	9.6	10.2	11.0	10.9	11.2	11.3	11.2	11.6	11.9	11.5	11.6	20.8	15.8	14.4	15.1	24	20.8
5	14.0	12.7	12.3	12.4	7.9	2.6	2.7	2.7	2.8	2.9	3.0	2.9	3.5	3.3	3.4	3.2	3.4	3.2	3.2	3.4	3.6	5.1	6.1	6.3	24	14.0
6	6.2	6.6	7.3	7.7	7.4	6.6	5.9	6.8	7.5	7.5	7.7	8.1	8.4	8.0	8.0	8.2	8.5	8.3	8.6	9.3	11.1	13.2	13.3	13.9	24	13.9
7	12.3	11.6	10.7	10.4	10.7	10.9	10.3	9.4	9.5	9.3	9.0	8.3	8.3	7.9	7.4	6.9	7.2	7.5	8.1	8.3	9.1	9.6	9.4	9.2	24	12.3
8	9.6	9.4	9.3	9.1	9.2	9.4	9.7	10.5	9.3	9.9	9.4	9.3	9.5	10.6	10.7	11.3	11.3	11.2	11.2	10.9	10.1	7.8	6.8	7.1	24	11.3
9	7.7	7.8	8.7	9.6	9.4	8.8	7.7	6.0	3.8	3.7	3.7	4.1	5.7	3.3	2.9	2.5	1.7	1.4	2.3	2.1	1.8	2.2	2.7	3.3	24	9.6
10	3.0	3.0	3.7	3.9	3.9	4.2	4.3	4.2	4.0	4.6	5.2	5.1	4.9	5.4	5.0	4.9	5.1	4.5	4.5	4.7	5.7	5.1	5.7	5.6	24	5.7
11	6.2	6.7	6.9	7.5	7.7	8.1	8.7	7.0	AZ	7.6	8.3	9.5	9.2	9.8	10.1	10.3	10.9	10.2	9.8	9.8	10.1	10.7	11.6	12.4	23	12.4
12	12.6	12.9	13.4	14.3	16.2	14.8	14.7	11.2	10.5	10.1	10.1	10.7	10.5	10.5	10.3	10.8	10.6	10.3	10.4	10.8	11.6	12.4	12.5	12.9	24	16.2
13	13.5	13.1	13.6	13.3	13.6	13.7	13.5	13.4	12.8	13.6	13.4	13.5	13.2	12.9	12.7	11.7	11.3	12.2	12.5	12.3	11.9	12.4	13.4	13.3	24	13.7
14	13.9	13.9	13.8	13.9	14.5	14.7	12.9	12.3	12.3	13.0	13.7	13.2	12.1	11.4	10.4	9.7	7.6	8.0	8.2	8.1	8.5	8.4	8.9	9.8	24	14.7
15	9.9	9.8	9.8	9.4	9.5	9.1	8.9	9.3	9.9	13.3	15.8	16.2	15.8	15.9	16.9	17.3	16.6	17.2	17.5	17.0	16.3	17.1	16.7	15.8	24	17.5
16	15.7	15.4	15.0	14.0	14.0	14.8	14.1	13.4	13.4	13.7	13.7	13.8	13.4	12.8	12.3	11.4	11.6	12.0	13.1	14.1	14.3	14.3	14.0	14.6	24	15.7
17	14.8	14.7	12.8	7.2	6.2	6.4	7.5	9.5	15.1	7.4	5.5	5.0	4.2	3.9	4.1	4.2	4.2	4.4	4.6	4.5	4.8	4.6	4.7	5.3	24	15.1
18	5.5	4.7	4.3	3.3	3.4	3.5	4.7	7.0	8.6	11.1	12.5	12.6	11.7	12.8	13.1	13.3	13.9	14.7	14.5	15.3	15.1	14.5	12.3	11.4	24	15.3
19	10.3	9.4	8.5	7.6	6.7	6.3	6.3	5.7	5.8	7.4	8.1	8.0	7.2	7.7	7.5	7.1	7.8	8.5	8.4	8.4	8.5	8.2	7.2	7.6	24	10.3
20	7.6	7.8	8.1	8.2	8.3	8.5	8.4	8.4	9.0	8.0	8.0	9.3	8.9	8.8	9.0	8.9	8.3	8.7	9.1	9.2	9.8	11.1	11.3	11.9	24	11.9
21	13.0	13.9	13.8	13.6	13.8	13.6	13.2	13.1	11.9	11.5	10.9	10.4	10.9	10.5	10.3	10.3	10.2	10.2	10.6	11.4	12.6	12.4	12.9	13.7	24	13.9
22	13.5	15.3	14.1	15.1	14.0	14.0	14.4	11.1	9.7	9.8	10.5	11.1	11.2	11.3	11.5	11.5	11.8	11.7	11.6	12.3	11.7	11.5	10.9	11.0	24	15.3
23	11.1	9.4	8.7	9.6	9.5	8.7	8.6	8.6	9.2	9.0	7.9	7.9	7.5	7.4	7.1	6.6	6.9	7.3	7.3	8.2	6.7	6.3	6.8	6.9	24	11.1
24	7.3	7.9	7.7	8.2	8.6	8.2	7.1	6.1	6.0	5.6	4.6	5.2	5.2	5.3	4.7	4.8	4.7	4.6	4.8	5.4	5.9	5.9	6.0	5.1	24	8.6
25	5.2	5.0	4.4	4.5	4.8	5.3	AZ	4.5	3.9	4.1	3.3	2.6	1.8	2.3	2.3	2.7	3.4	5.3	6.3	6.1	5.8	5.4	4.7	4.8	23	6.3
26	5.1	5.2	4.1	4.4	4.1	4.3	5.5	4.2	4.0	4.8	9.4	13.4	11.8	7.5	6.2	5.3	5.6	7.2	8.2	9.0	9.3	9.4	10.0	10.7	24	13.4
27	11.4	12.9	13.1	13.2	14.2	14.7	14.3	14.9	14.7	14.5	13.7	12.6	12.9	13.5	12.0	11.5	11.7	13.0	13.6	11.7	11.7	10.9	9.3	9.4	24	14.9
28	9.0	8.3	9.1	9.0	9.0	9.4	8.7	7.9	7.6	7.6	8.0	8.7	7.3	6.3	5.7	5.8	5.7	5.6	4.8	5.3	5.8	6.2	6.5	6.8	24	9.4
29	6.1	6.7	7.2	7.6	8.1	8.1	7.7	7.9	8.3	8.8	8.6	8.4	8.3	8.2	8.1	7.6	7.2	7.5	7.0	7.4	7.9	8.6	8.9	8.9	24	8.9
30	9.0	9.3	9.8	9.8	10.3	10.2	10.0	10.1	10.1	8.8	7.7	7.6	7.8	7.3	7.1	7.0	6.7	6.9	6.9	7.1	7.1	6.9	7.2	7.5	24	10.3
31	8.0	8.8	9.3	9.8	10.3	10.1	10.5	10.4	11.5	11.1	10.3	10.7	12.0	13.6	15.2	15.6	16.8	18.1	18.6	18.8	18.6	20.3	20.2	19.3	24	20.3
NO.:	31	31	31	31	31	31	30	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MAX:	15.7	15.4	15.0	15.1	16.2	16.8	17.1	16.5	15.9	14.5	15.8	18.5	25.5	15.9	16.9	17.3	16.8	18.1	18.6	18.8	20.8	20.3	20.2	19.3		
AVG:	9.37	9.35	9.30	9.27	9.37	9.24	9.24	8.74	8.87	8.75	8.84	9.51	9.56	8.73	8.60	8.49	8.46	8.76	8.94	9.11	9.61	9.65	9.60	9.80		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 9.13 MONTHLY MAX: 25.5

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: AUGUST 2024

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

DAY	HOUR 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	19.7IF	21.8IF	24.8IF	26.7IF	27.4IF	27.2IF	30.9IF	35.9IF	39.8IF	40.9IF	41.8IF	43.1IF	43.1IF	43.3IF	43.0IF	45.2IF	46.2IF	43.8IF	40.7IF	40.2IF	40.3IF	41.5IF	41.4IF	41.6IF	24	46.2
2	40.8IF	41.5IF	41.3IF	40.6IF	40.1IF	39.7IF	38.6IF	38.5IF	37.5IF	35.2IF	29.6IF	21.7IF	17.2IF	15.1IF	11.3IF	9.8IF	8.0IF	8.2IF	8.7IF	9.7IF	10.4IF	10.9IF	11.0IF	12.6IF	24	41.5
3	13.4	12.7	12.9	12.7	13.2	13.2	12.2	11.7	10.8	10.0	8.9	9.4	9.8	10.0	9.6	9.1	10.6	11.7	12.5	13.3	13.7	14.8	16.8	16.3	24	16.8
4	16.2IF	16.4IF	17.6IF	18.1IF	18.5IF	18.8IF	17.7IF	14.8IF	14.6IF	14.1IF	14.9IF	15.4IF	17.0IF	16.4IF	15.9IF	15.5IF	15.4IF	15.5IF	15.7IF	15.7IF	15.7IF	17.6IF	18.6IF	18.6IF	24	18.8
5	18.9IF	19.4IF	19.7IF	19.9IF	20.1IF	21.5IF	20.8IF	19.8IF	17.4IF	14.0IF	12.7IF	13.3IF	13.1IF	14.5IF	15.4IF	15.5IF	15.0IF	14.4IF	13.9IF	14.0IF	14.5IF	14.4IF	14.8IF	15.2IF	24	21.5
6	15.1IF	15.8IF	16.1IF	15.6IF	15.7IF	16.1IF	15.9IF	16.5IF	15.9IF	15.8IF	15.2IF	15.4IF	16.5IF	16.7IF	16.8IF	16.0IF	15.8IF	16.2IF	18.8IF	19.6IF	19.5IF	19.1IF	18.6IF	17.8IF	24	19.6
7	18.1	18.3	17.7	17.8	18.2	16.4	15.1	12.3	11.3	9.0	8.6	11.5	9.6	5.5	4.5	4.3	4.0	4.7	6.1	6.2	6.2	7.0	7.3	7.0	24	18.3
8	7.8	6.7	6.4	7.0	8.1	8.8	9.8	10.0	AZ	12.0	13.1	13.2	12.6	11.2	13.6	11.7	10.0	10.3	9.9	9.0	8.5	7.6	7.4	6.9	23	13.6
9	5.8	6.0	5.7	6.1	6.7	6.8	8.0	8.3	7.8	7.8	8.5	8.3	8.4	9.6	10.8	13.3	12.0	10.1	10.7	10.0	10.3	11.1	10.2	9.6	24	13.3
10	8.5	7.6	7.3	7.1	6.5	6.2	5.9	5.7	5.5	5.4	5.4	6.1	6.6	7.1	7.1	8.1	7.9	7.7	8.2	8.0	8.9	9.6	9.9	9.7	24	9.9
11	8.9	9.5	9.4	9.2	8.3	7.5	8.0	7.8	6.7	5.5	5.0	5.0	5.3	5.9	6.4	6.5	6.6	5.9	5.6	5.5	5.5	5.7	6.4	5.6	24	9.5
12	5.7	6.1	6.0	5.9	6.0	6.8	7.4	7.7	8.0	7.6	7.2	7.5	7.8	9.0	9.7	9.7	10.0	11.0	11.7	13.9	13.7	14.6	13.8	12.4	24	14.6
13	12.6	12.6	14.2	15.4	13.6	12.1	12.3	16.4	12.9	13.0	13.6	14.1	14.0	15.2	14.5	13.6	16.4	14.8	15.7	16.0	14.5	14.0	13.5	13.7	24	16.4
14	13.4	13.2	13.7	14.8	14.0	14.6	13.9	14.2	15.8	16.3	16.7	15.8	14.3	14.0	12.7	13.1	13.1	13.4	13.0	13.1	13.4	14.5	15.7	15.0	24	16.7
15	15.1IF	14.5IF	14.1IF	14.5IF	14.9IF	15.1IF	13.7IF	12.7IF	13.0IF	14.8IF	15.7IF	19.6IF	25.6IF	21.3IF	19.8IF	18.5IF	17.7IF	17.9IF	18.1IF	19.0IF	19.5IF	19.5IF	18.8IF	18.0IF	24	25.6
16	18.5	18.1	18.5	18.8	18.3	18.6	18.2	12.6	12.2	10.9	14.0	13.9	10.4	10.1	9.2	7.8	7.6	7.8	7.3	7.9	8.1	11.1	13.1	13.5	24	18.8
17	13.7	14.8	10.3	6.4	6.6	6.6	6.8	7.0	6.0	4.5	3.4	3.2	3.5	3.7	3.8	3.9	3.9	3.9	4.1	4.1	4.5	5.0	5.4	7.9	24	14.8
18	7.7	7.3	7.0	7.4	7.3	8.0	8.7	7.8	8.1	7.8	8.1	9.2	8.9	8.9	9.7	11.2	12.9	17.3	15.6	16.8	13.3	12.1	11.0	9.4	24	17.3
19	8.4	7.7	7.2	6.5	6.5	6.9	6.5	6.3	8.2	11.6	7.1	7.7	9.4	10.9	11.3	10.9	10.8	11.9	12.2	12.5	12.9	13.3	13.6	14.2	24	14.2
20	16.2	18.8IF	22.2IF	28.4IF	29.3IF	27.4IF	25.6IF	23.6IF	22.1IF	20.5IF	21.0IF	22.5IF	23.4IF	19.4IF	16.6IF	16.5IF	15.6IF	13.6IF	13.3IF	12.9IF	12.9IF	12.7IF	12.8IF	12.1IF	24	29.3
21	11.8	11.1	10.8	10.4	11.0	11.1	11.3	13.7	12.7	10.9	10.7	10.6	10.2	9.9	9.7	9.8	9.3	9.2	9.1	9.3	9.2	9.2	9.0	9.0	24	13.7
22	8.3	7.7	7.7	7.8	7.9	8.6	8.5	9.3	11.0	AZ	12.7	12.7	12.3	12.0	12.4	12.4	10.7	11.9	12.3	13.6	14.3	14.6	14.0	14.4	23	14.6
23	14.8IF	17.1IF	18.3IF	19.7IF	20.0IF	19.7IF	18.9IF	16.5IF	15.3IF	13.8IF	14.2IF	14.9IF	16.1IF	18.4IF	17.9IF	15.6IF	15.1IF	15.2IF	15.4IF	16.9IF	15.7IF	15.9IF	16.2IF	16.3IF	24	20.0
24	17.3IF	17.3IF	18.1IF	18.3IF	19.5IF	22.0IF	21.3IF	21.3IF	20.6IF	18.8IF	17.4IF	17.2IF	16.3IF	15.2IF	14.9IF	15.1IF	15.2IF	16.1IF	18.0IF	19.1IF	18.6IF	18.1IF	19.9IF	19.6IF	24	22.0
25	18.9IF	19.7IF	20.6IF	21.1IF	20.5IF	20.4IF	19.7IF	18.0IF	17.6IF	18.0IF	14.2IF	14.1IF	19.7IF	14.0IF	14.7IF	17.0IF	19.1IF	15.9IF	15.6IF	16.6IF	16.9IF	17.0IF	22.2IF	20.9IF	24	22.2
26	21.4IF	21.8IF	21.2IF	21.3IF	21.6IF	21.1IF	20.3IF	18.0IF	16.3IF	14.6IF	13.8IF	13.8IF	14.5IF	14.9IF	14.0IF	13.9IF	14.4IF	14.5IF	14.8IF	14.8IF	15.1IF	16.3IF	16.0IF	17.0IF	24	21.8
27	17.5IF	17.7IF	18.6IF	19.1IF	19.1IF	19.8IF	19.4IF	16.0IF	17.8IF	16.5IF	15.7IF	14.7IF	14.8IF	15.4IF	15.5IF	15.8IF	15.7IF	15.4IF	17.7IF	20.3IF	24.1IF	24.5IF	22.3IF	21.2IF	24	24.5
28	20.3IF	19.7IF	19.4IF	19.4IF	19.4IF	19.6IF	21.1IF	18.4IF	19.0IF	19.3IF	18.6IF	18.1IF	18.1IF	22.3IF	18.1IF	17.9IF	21.7IF	34.2IF	34.2IF	34.1IF	34.4IF	37.9IF	38.9IF	34.6IF	24	38.9
29	29.0	25.4	24.9	24.0	22.1	19.9	15.4	11.0	9.6	9.4	9.6	8.1	8.0	7.6	7.1	7.7	5.6	6.4	6.4	5.7	3.3	2.9	3.3	4.0	24	29.0
30	4.0	4.6	5.5	6.4	7.5	7.1	7.1	6.9	6.9	5.5	4.7	4.5	4.2	4.2	4.3	4.4	4.2	3.4	2.7	3.4	4.2	4.1	4.4	4.6	24	7.5
31	4.9	5.9	6.6	7.4	7.7	8.0	8.0	6.9	6.2	5.2	6.0	6.2	5.8	6.0	6.1	5.4	5.6	5.4	6.2	7.1	7.8	8.2	8.7	8.4	24	8.7
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:	40.8	41.5	41.3	40.6	40.1	39.7	38.6	38.5	39.8	40.9	41.8	43.1	43.1	43.3	43.0	45.2	46.2	43.8	40.7	40.2	40.3	41.5	41.4	41.6		
AVG:	14.60	14.74	14.96	15.28	15.34	15.34	15.06	14.37	14.22	13.62	13.16	13.25	13.44	13.15	12.79	12.75	12.78	13.15	13.36	13.82	13.87	14.35	14.68	14.42		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 14.02 MONTHLY MAX: 46.2

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: SEPTEMBER 2024

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	8.0	7.9	7.5	8.0	8.8	8.5	9.2	9.1	8.5	9.4	9.5	10.2	8.7	6.8	5.1	3.3	3.4	3.8	4.2	4.9	6.0	7.1	8.7	9.3	24	10.2
2	8.6	9.0	9.4	10.4	13.0	10.8	9.7	10.2	9.9	9.5	9.0	9.1	8.2	9.1	9.5	10.0	10.5	11.1	11.3	11.3	20.7	19.8	15.7	14.1	24	20.7
3	12.8	12.5	12.5	12.6	12.7	12.2	11.9	12.0	11.2	10.7	11.2	11.5	11.4	11.1	11.8	11.2	11.2	10.1	9.6	10.1	10.4	10.7	10.5	9.9	24	12.8
4	9.7	10.8	11.8	12.1	12.0	13.0	13.8	14.1	14.9	14.3	14.2	13.4	12.8	15.2	13.8	14.2	14.8	15.1	15.3	15.4	14.4	14.3	14.3	14.0	24	15.4
5	12.9	12.5	12.8	13.5	12.6	12.5	12.4	12.3	AZ	BL	BL	AZ	10.5	11.3	12.2	11.8	11.6	11.7	13.1	13.8	13.2	13.0	13.4	14.2	20	14.2
6	14.1	14.5	14.3	14.6	14.3	13.7	13.6	14.2	15.4	15.2	14.8	13.3	13.2	13.1	13.6	15.8	16.3	15.5	15.5	15.9	14.8	11.9	12.7	13.9	24	16.3
7	20.4	24.1	23.1	21.1	16.9	13.4	12.1	10.2	9.5	9.4	8.0	6.0	5.4	4.9	4.4	4.0	3.7	3.6	3.8	4.2	4.7	4.7	4.6	4.3	24	24.1
8	3.9	3.9	3.8	3.9	4.1	4.3	4.3	4.4	4.0	3.8	4.0	3.7	3.6	3.4	3.2	3.2	3.2	3.3	3.9	3.8	4.7	5.6	5.9	5.2	24	5.9
9	4.3	4.1	4.2	4.3	4.6	4.6	4.7	5.0	4.6	4.6	4.1	3.8	4.3	5.0	5.6	8.3	8.2	6.3	7.2	8.6	7.6	7.3	7.5	7.5	24	8.6
10	7.3	7.3	6.9	7.1	7.6	7.7	8.0	10.8	13.9	11.7	11.7	12.4	14.2	17.6	18.3	17.1	15.9	15.5	15.6	16.6	15.8	16.0	18.2	19.2	24	19.2
11	19.4	20.5	21.1	21.3	20.3	20.8	20.2	17.2	19.1	17.1	16.4	17.0	17.2	15.5	15.6	15.1	15.3	16.4	17.0	16.7	16.9	17.0	15.6	15.3	24	21.3
12	14.1	11.3	8.9	7.2	5.8	6.2	7.4	7.9	7.7	9.4	14.6	16.5	12.5	10.1	10.0	9.0	5.9	3.0	2.2	1.7	2.0	2.7	3.4	3.7	24	16.5
13	3.8	4.5	5.2	5.9	6.4	6.8	7.3	6.8	7.0	6.5	6.5	7.0	7.3	8.2	7.5	7.0	7.2	6.6	6.7	6.2	6.0	5.3	4.9	4.9	24	8.2
14	5.2	5.9	7.1	7.9	8.1	9.4	10.7	11.1	10.1	8.2	6.1	5.5	4.7	4.7	4.4	5.1	5.3	5.7	4.7	3.8	3.1	3.4	4.0	4.6	24	11.1
15	4.6	4.7	5.0	5.0	4.9	5.7	7.0	6.7	4.7	3.4	3.2	3.5	4.1	5.2	6.8	8.1	9.1	9.1	7.8	8.6	8.8	10.1	10.4	11.2	24	11.2
16	12.0	13.1	13.1	13.2	13.4	13.1	13.3	12.7	13.0	13.0	13.2	AZ	13.4	12.7	13.2	13.1	13.2	13.5	13.1	13.5	14.1	13.9	14.7	15.0	23	15.0
17	15.0	15.5	15.0	15.3	15.3	14.5	15.4	13.3	11.2	12.2	12.4	11.1	9.9	9.2	8.9	10.2	8.4	9.1	10.6	11.4	12.7	14.3	13.7	13.7	24	15.5
18	14.1	14.3	15.2	14.7	14.4	15.1	16.8	15.6	13.8	13.3	12.8	14.2	17.9	15.0	14.1	13.5	13.9	13.8	13.9	15.8	16.6	13.2	10.9	10.5	24	17.9
19	11.0	12.5	12.2	11.6	11.0	11.5	12.6	11.8	10.0	7.5	6.4	6.3	6.7	6.5	6.0	5.9	5.4	4.8	5.2	5.5	5.9	6.6	7.2	7.0	24	12.6
20	7.3	7.4	7.7	8.7	8.2	7.9	10.6	9.3	9.7	9.2	8.0	7.8	8.5	9.0	9.2	9.2	10.0	9.7	10.3	10.6	10.6	14.2	10.1	11.2	24	14.2
21	13.5	11.0	14.1	15.0	11.7	10.6	10.9	12.8	12.0	11.0	11.4	11.9	12.0	12.4	12.1	11.9	12.8	15.8	16.3	15.4	15.8	15.9	15.8	16.4	24	16.4
22	16.8	15.3	14.7	14.1	13.9	14.6	14.5	13.7	15.1	17.2	14.7	15.5	15.3	15.2	15.5	15.5	15.7	17.0	16.8	17.3	17.7	17.0	17.2	16.9	24	17.7
23	16.3	17.0	17.2	18.5	19.5	20.6	21.5	19.6	17.7	16.1	14.9	13.6	14.4	14.2	14.9	14.0	14.5	14.8	16.4	17.3	16.2	16.9	17.0	16.4	24	21.5
24	16.2	16.9	17.5	18.9	19.7	19.6	18.4	16.7	14.3	11.6	10.5	11.6	11.7	9.5	9.3	10.4	10.0	8.9	8.7	7.9	7.5	6.9	6.7	6.2	24	19.7
25	5.7	5.7	6.0	6.1	5.9	6.0	6.2	6.9	6.8	7.1	7.3	7.4	7.1	6.3	6.7	7.4	6.7	7.5	8.5	8.6	8.9	8.8	8.2	7.9	24	8.9
26	8.6	7.8	7.7	9.1	10.5	12.0	11.6	11.0	10.3	8.8	9.6	8.1	8.4	8.6	8.8	7.6	6.8	6.6	6.5	8.2	13.9	13.6	11.4	11.3	24	13.9
27	10.2	8.9	7.1	6.9	6.9	6.5	5.7	4.5	3.8	3.5	3.4	3.8	3.5	3.0	2.5	2.2	1.9	2.1	2.2	2.2	2.3	2.8	4.0	5.4	24	10.2
28	6.2	6.5	6.5	6.6	7.1	6.9	6.8	6.8	6.5	6.9	7.2	6.9	6.6	6.3	6.3	6.4	6.3	7.4	7.0	7.2	7.2	7.7	8.5	8.7	24	8.7
29	9.1	9.0	9.1	8.9	8.7	8.6	8.8	9.0	9.7	10.2	11.0	10.5	8.6	7.7	6.8	6.7	5.8	7.1	4.9	6.4	6.0	6.3	6.9	8.1	24	11.0
30	8.1	7.4	8.0	9.6	10.5	10.2	10.0	8.6	10.0	10.4	12.3	12.1	11.2	10.5	12.2	13.2	11.7	11.6	12.1	13.1	14.2	15.9	15.8	15.3	24	15.9
31																									0	
NO.:	30	30	30	30	30	30	30	30	29	29	29	28	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	20.4	24.1	23.1	21.3	20.3	20.8	21.5	19.6	19.1	17.2	16.4	17.0	17.9	17.6	18.3	17.1	16.3	17.0	17.0	17.3	20.7	19.8	18.2	19.2		
AVG:	10.64	10.73	10.82	11.07	10.96	10.91	11.18	10.81	10.50	10.04	9.94	9.78	9.78	9.58	9.61	9.68	9.49	9.55	9.68	10.07	10.62	10.76	10.60	10.71		

MONTHLY OBSERVATIONS: 715 MONTHLY MEAN: 10.31 MONTHLY MAX: 24.1

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: OCTOBER 2024

DURATION: 1 HOUR
UNITS:Micrograms/cubic meter (LC)
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	15.1	15.6	15.7	14.9	13.8	13.9	14.9	16.6	13.0	11.1	9.7	10.2	9.8	8.3	8.0	6.8	6.5	6.9	8.1	10.1	11.6	11.7	11.3	9.7	24	16.6
2	8.1	7.7	7.3	7.2	7.0	6.9	7.2	7.0	7.5	8.1	8.3	9.0	9.2	8.4	7.3	BA	BA	7.3	7.6	8.3	8.2	8.1	8.8	8.6	22	9.2
3	8.7	12.1	15.3	15.8	20.1	13.6	14.9	9.5	9.6	12.1	13.1	12.6	12.0	12.0	12.2	11.8	12.2	14.8	15.5	15.9	18.0	19.7	22.2	21.8	24	22.2
4	22.7IT	21.6IT	19.3IT	19.5IT	18.9IT	19.2IT	19.2IT	22.6IT	16.6IT	15.7IT	14.4IT	14.7IT	13.8IT	13.6IT	AZ	12.8IT	13.1IT	14.5IT	16.1IT	17.2IT	17.2IT	20.8IT	23.9IT	19.5IT	23	23.9
5	19.1	19.1	18.6	19.4	19.4	19.5	20.2	18.5	16.8	15.5	14.5	14.3	15.3	17.3	18.4	15.1	13.7	16.1	16.6	19.3	19.5	19.0	20.7	19.9	24	20.7
6	19.8IT	20.7IT	21.8IT	21.3IT	20.7IT	19.9IT	20.9IT	18.4IT	16.6IT	15.9IT	16.6IT	16.7IT	16.8IT	17.3IT	16.3IT	16.2IT	15.8IT	17.4IT	18.4IT	19.0IT	19.6IT	19.2IT	19.8IT	22.2IT	24	22.2
7	20.1	18.3	20.8	18.8	13.5	11.9	14.3	13.2	13.8	14.6	13.8	12.3	10.8	10.0	8.0	7.1	7.0	6.6	6.5	6.4	7.7	8.4	8.7	8.6	24	20.8
8	8.8	7.7	6.6	6.1	6.2	6.5	6.6	6.6	6.5	9.9	6.4	6.0	5.9	5.3	5.4	5.2	5.6	6.1	6.3	7.2	7.7	9.2	12.9	8.6	24	12.9
9	8.0	7.6	7.4	7.4	7.1	7.1	7.7	7.4	6.3	6.0	5.4	5.2	5.0	4.6	4.3	4.1	3.9	4.5	4.9	5.1	4.9	4.9	5.4	5.8	24	8.0
10	6.4	6.2	6.5	6.7	6.8	7.0	7.5	7.9	8.5	8.8	9.6	10.8	11.4	12.2	12.8	14.7	13.9	14.9	15.6	16.9	18.6	18.4	17.8	17.0	24	18.6
11	16.6IT	17.4IT	17.3IT	16.7IT	16.6IT	17.1IT	19.1IT	17.9IT	14.7IT	13.0IT	12.9IT	12.6IT	13.3IT	13.3IT	13.3IT	13.7IT	13.7IT	13.9IT	16.5IT	22.7IT	16.4IT	16.9IT	16.5IT	14.5IT	24	22.7
12	13.7IF	13.7IF	13.4IF	13.2IF	14.3IF	14.2IF	14.0IF	14.2IF	14.3IF	14.8IF	15.4IF	15.8IF	16.1IF	15.8IF	16.3IF	16.2IF	17.6IF	18.8IF	22.2IF	22.1IF	20.9IF	21.1IF	20.5IF	20.3IF	24	22.2
13	19.3IF	19.5IF	19.9IF	20.4IF	20.3IF	19.8IF	20.0IF	20.9IF	22.7IF	22.4IF	22.7IF	19.8IF	19.0IF	19.2IF	20.4IF	21.0IF	32.2IF	25.2IF	27.4IF	30.8IF	26.7IF	21.4IF	19.4IF	14.8IF	24	32.2
14	11.8	11.2	9.1	7.2	6.7	6.8	7.2	7.6	7.9	6.6	6.1	6.2	5.7	6.5	5.4	5.6	6.5	7.3	7.6	8.5	11.1	13.8	15.3	16.4	24	16.4
15	16.8	18.5	17.5	9.2	6.9	6.6	7.3	6.5	8.1	5.4	8.7	12.0	16.1	18.2	13.3	6.8	5.0	4.5	5.6	5.8	6.4	7.5	5.6	4.4	24	18.5
16	4.0	4.0	4.3	4.9	5.6	5.5	5.5	5.3	3.6	AZ	AZ	2.6	2.9	3.1	2.9	2.6	3.1	3.8	4.7	5.9	7.3	7.6	6.5	6.8	22	7.6
17	6.4	5.8	5.8	5.3	5.6	6.2	6.7	5.5	4.5	3.8	3.7	3.7	4.0	4.0	3.7	3.7	3.8	4.0	5.8	7.7	7.6	8.7	7.7	8.0	24	8.7
18	9.7	8.5	8.1	7.0	6.8	7.6	8.0	8.3	7.9	6.3	5.9	5.8	6.5	6.7	6.8	6.6	6.8	7.3	11.3	13.6	13.2	11.9	11.3	12.5	24	13.6
19	13.2	14.4	18.2	18.1	17.0	16.1	15.9	17.1	15.4	11.9	11.7	10.8	11.1	10.9	11.0	10.9	10.8	12.2	16.1	17.2	19.5	21.1	21.5	23.5	24	23.5
20	23.5IT	23.4IT	23.7IT	23.4IT	25.0IT	28.1IT	34.2IT	32.5IT	18.3IT	13.0IT	12.2IT	10.7IT	11.3IT	10.2IT	9.6IT	10.6IT	12.1IT	12.4IT	15.1IT	14.1IT	14.5IT	17.1IT	16.6IT	16.3IT	24	34.2
21	15.5	16.8	25.3	40.1	30.0	26.0	24.2	18.7	11.6	10.6	9.1	9.5	8.8	8.8	8.4	8.5	7.9	8.5	10.0	11.9	15.5	13.8	12.9	12.6	24	40.1
22	12.4IT	11.6IT	11.6IT	12.2IT	11.4IT	12.0IT	14.8IT	16.8IT	20.1IT	17.4IT	16.8IT	15.7IT	25.7IT	19.5IT	17.7IT	14.4IT	13.6IT	15.2IT	15.9IT	15.1IT	15.2IT	16.1IT	16.5IT	16.2IT	24	25.7
23	16.6IT	16.8IT	17.9IT	17.9IT	18.9IT	19.2IT	19.5IT	20.6IT	22.5IT	20.7IT	18.7IT	17.8IT	17.9IT	17.7IT	26.0IT	32.7IT	29.0IT	23.7IT	25.8IT	32.5IT	37.2IT	40.1IT	40.5IT	39.3IT	24	40.5
24	34.5IT	32.7IT	30.5IT	27.4IT	23.2IT	20.5IT	19.9IT	19.0IT	19.7IT	20.4IT	20.9IT	22.6IT	22.7IT	23.6IT	25.3IT	25.5IT	24.2IT	23.5IT	23.5IT	23.2IT	25.7IT	27.6IT	28.1IT	28.6IT	24	34.5
25	30.1IT	28.7IT	28.0IT	27.9IT	25.9IT	25.9IT	27.1IT	26.9IT	23.8IT	20.7IT	18.2IT	15.7IT	28.9IT	11.4IT	13.4IT	38.9IT	46.2IT	58.4IT	49.7IT	44.2IT	43.3IT	37.9IT	35.8IT	30.6IT	24	58.4
26	23.3	20.7	21.3	20.9	20.2	21.0	22.9	33.0	35.6	35.0	33.7	32.5	33.1	31.3	28.4	29.2	29.5	32.6	32.9	29.0	22.1	20.0	17.9	18.1	24	35.6
27	17.4IT	17.4IT	16.6IT	14.9IT	14.0IT	14.2IT	13.1IT	13.5IT	13.4IT	13.5IT	15.2IT	18.3IT	19.9IT	20.0IT	18.6IT	18.0IT	16.6IT	16.5IT	20.0IT	19.2IT	19.7IT	19.1IT	18.3IT	19.8IT	24	20.0
28	20.9IT	20.3IT	20.8IT	20.6IT	20.5IT	22.0IT	24.7IT	25.5IT	25.9IT	28.8IT	28.6IT	24.8IT	24.3IT	26.2IT	26.2IT	24.3IT	23.6IT	23.4IT	24.5IT	25.1IT	25.5IT	25.3IT	26.9IT	29.1IT	24	29.1
29	33.9IT	35.0IT	35.4IT	35.3IT	36.6IT	36.5IT	35.6IT	34.8IT	35.0IT	32.8IT	31.9IT	29.8IT	29.6IT	30.5IT	32.0IT	28.7IT	26.6IT	26.3IT	26.2IT	26.9IT	29.1IT	29.1IT	30.8IT	30.6IT	24	36.6
30	28.8IT	27.3IT	27.4IT	26.9IT	27.7IT	27.2IT	25.8IT	24.2IT	22.4IT	20.1IT	18.8IT	16.2IT	14.6IT	12.9IT	12.8IT	13.8IT	17.2IT	17.6IT	17.8IT	19.5IT	20.6IT	21.0IT	17.9IT	16.1IT	24	28.8
31	16.2	18.7	17.8	17.4	17.6	18.4	17.4	17.0	16.8	14.0	4.5	4.3	4.2	4.6	6.3	AN	6.9	7.9	10.1	12.2	12.0	12.0	12.8	14.5	23	18.7
NO.:	31	31	31	31	31	31	31	31	31	30	30	31	31	31	30	29	30	31	31	31	31	31	31	31		
MAX:	34.5	35.0	35.4	40.1	36.6	36.5	35.6	34.8	35.6	35.0	33.7	32.5	33.1	31.3	32.0	38.9	46.2	58.4	49.7	44.2	43.3	40.1	40.5	39.3		
AVG:	16.82	16.74	17.07	16.90	16.27	16.01	16.65	16.56	15.46	14.96	14.25	13.52	14.38	13.66	13.68	14.67	14.82	15.23	16.27	17.18	17.50	17.69	17.77	17.25		

MONTHLY OBSERVATIONS: 738 MONTHLY MEAN: 15.90 MONTHLY MAX: 58.4

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: NOVEMBER 2024

DURATION: 1 HOUR
UNITS: Micrograms/cubic meter (LC)
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	13.1	15.8	12.7	12.5	12.2	14.1	13.9	13.0	AZ	17.8	15.8	14.7	13.1	13.7	13.9	15.5	15.6	16.0	18.9	18.7	20.0	20.8	23.8	16.3	23	23.8
2	16.2	17.1	24.4	17.2	17.6	17.3	17.6	16.5	15.4	14.3	14.4	13.4	13.4	13.2	12.4	13.7	14.7	17.6	17.6	20.7	19.2	18.4	17.0	15.6	24	24.4
3	15.6	15.7	16.3	16.8	16.5	17.3	18.0	18.4	19.3	17.4	15.9	12.5	11.8	12.4	10.2	9.1	9.0	8.9	9.4	10.3	10.3	9.5	8.7	8.6	24	19.3
4	8.2	7.5	7.8	8.1	8.1	9.3	10.7	11.2	11.8	11.4	10.7	10.6	10.4	10.0	10.8	13.3	12.0	12.1	11.6	11.0	12.1	12.4	12.9	12.9	24	13.3
5	12.3	10.6	9.1	8.6	8.3	9.2	10.3	10.6	11.0	10.6	10.2	10.0	10.2	12.7	11.8	4.3	6.6	9.3	11.3	15.0	16.8	16.3	15.1	13.1	24	16.8
6	6.8	6.7	6.6	6.9	6.9	7.0	6.7	6.1	5.7	5.9	5.1	5.2	9.6	10.6	10.0	11.1	11.4	14.3	17.0	14.6	12.4	11.2	11.6	12.8	24	17.0
7	13.6	16.6	19.9	22.7	24.9	16.6	5.0	3.5	BA	4.3	5.1	6.3	7.5	7.4	7.5	7.3	6.4	6.7	7.4	6.0	5.7	5.4	6.8	7.2	23	24.9
8	7.8	6.9	6.5	7.7	8.0	7.4	6.9	AZ	AZ	AZ	AZ	5.4	5.6	5.0	5.4	5.8	6.6	6.6	6.3	6.3	5.9	6.6	6.4	6.0	20	8.0
9	5.8	5.9	6.2	6.0	6.0	6.1	6.0	6.1	6.0	6.3	6.5	7.0	7.0	8.1	9.5	9.5	10.3	11.7	11.7	12.5	11.5	11.6	11.7	11.6	24	12.5
10	11.4	10.0	10.6	8.5	10.8	9.7	9.1	8.7	8.1	7.2	6.3	6.2	4.9	4.7	4.4	4.4	5.0	6.1	6.1	6.3	5.7	4.7	4.2	3.7	24	11.4
11	4.4	4.9	5.1	5.1	5.0	5.1	5.1	4.9	4.2	4.1	3.6	3.2	2.6	2.1	2.1	2.2	2.4	2.5	2.7	3.1	3.3	3.9	4.2	3.9	24	5.1
12	3.6	3.8	3.6	4.5	4.1	4.1	4.0	4.0	3.7	3.6	3.4	3.3	3.4	3.6	4.0	3.8	4.2	4.8	5.7	6.8	6.1	5.6	5.0	5.2	24	6.8
13	5.5	5.2	5.2	5.4	5.3	5.7	5.2	5.5	5.5	AZ	7.8	10.2	10.9	11.5	11.2	12.7	11.5	8.8	7.7	4.6	4.1	5.6	7.0	8.6	23	12.7
14	8.7	9.1	9.0	8.7	7.4	7.4	5.2	4.2	3.7	3.5	3.7	3.7	3.1	3.0	2.8	2.9	3.1	3.3	3.9	4.1	5.5	7.6	6.5	5.7	24	9.1
15	5.1	5.0	5.0	5.4	5.9	5.6	6.0	5.9	4.7	4.9	4.3	3.7	4.0	4.4	4.5	4.7	4.6	5.8	7.0	7.9	10.6	11.2	8.2	7.5	24	11.2
16	7.6	7.6	7.6	7.8	8.0	8.4	8.7	8.3	6.5	5.9	5.3	5.0	4.9	4.8	5.0	5.0	4.8	6.0	7.3	6.5	8.6	7.9	7.8	7.2	24	8.7
17	8.1	8.1	7.8	7.7	7.9	8.5	8.1	7.8	8.3	7.7	7.1	6.9	7.2	7.1	6.9	6.7	7.4	11.9	12.8	7.6	7.7	7.5	11.1	8.9	24	12.8
18	8.8	7.5	7.0	6.9	6.3	6.1	6.7	6.9	6.5	5.9	5.7	5.5	5.6	5.2	5.8	7.2	8.5	5.6	5.2	6.0	7.1	6.5	4.6	1.5	24	8.8
19	2.3	2.6	2.9	3.8	4.3	4.3	5.4	5.6	4.4	4.1	4.2	4.2	3.2	3.2	3.5	3.7	4.3	4.9	4.9	4.3	5.4	5.3	5.0	5.3	24	5.6
20	5.4	5.4	5.8	5.5	4.1	3.2	2.5	2.1	1.7	1.4	1.3	1.0	1.0	.9	.9	1.0	1.3	2.4	2.4	2.0	1.8	1.6	1.6	1.7	24	5.8
21	1.6	1.6	1.5	1.5	1.6	1.7	2.0	1.9	2.0	1.8	1.5	1.2	1.4	1.2	1.1	1.2	1.4	2.4	3.2	2.9	2.2	1.5	1.4	1.7	24	3.2
22	1.9	1.7	1.9	2.5	2.5	2.6	2.8	3.0	3.7	4.2	4.7	4.5	4.7	5.1	4.9	4.5	4.6	4.9	6.0	5.7	5.7	5.9	8.0	7.9	24	8.0
23	8.4	8.0	7.8	6.8	6.2	5.7	5.7	6.8	5.6	4.9	4.4	3.9	3.6	3.5	3.2	3.2	3.4	5.3	13.4	11.8	6.4	6.6	5.8	6.6	24	13.4
24	5.0	4.6	4.6	4.6	4.3	4.3	4.8	5.4	5.5	6.2	6.4	8.2	13.0	10.5	6.7	4.6	4.2	4.7	6.3	7.1	6.1	5.3	5.2	5.9	24	13.0
25	6.4	6.1	5.5	5.2	4.6	4.4	4.1	4.0	3.8	3.7	3.8	3.9	4.0	4.9	5.4	6.2	7.1	7.5	9.6	9.3	10.0	11.5	14.2	14.9	24	14.9
26	14.8	14.9	13.3	11.1	9.9	9.0	8.8	8.7	10.3	11.0	9.5	7.9	7.0	6.7	6.4	5.7	5.3	5.9	7.0	8.4	12.4	11.4	9.4	9.6	24	14.9
27	7.4	6.6	6.3	6.7	6.8	7.7	8.3	9.3	AZ	12.5	13.5	13.1	13.3	12.9	13.3	13.0	12.4	12.8	12.9	14.2	12.3	13.0	10.2	5.7	23	14.2
28	4.4	7.1	9.6	11.0	10.2	8.1	7.1	6.5	6.8	7.8	7.3	7.6	10.0	12.2	15.4	15.8	16.1	16.1	16.6	19.8	23.4	20.6	20.3	18.8	24	23.4
29	14.8	15.6	19.9	10.4	6.4	6.7	6.8	7.1	6.0	6.0	5.2	5.0	5.0	4.2	4.8	4.5	4.0	5.2	5.3	5.8	19.2	14.7	11.6	9.1	24	19.9
30	8.3	8.9	6.7	6.1	6.4	5.8	5.6	5.7	5.5	4.4	4.4	3.7	3.5	2.8	2.6	2.6	2.3	3.5	5.2	4.8	3.6	8.5	5.7	3.9	24	8.9
31																									0	
NO.:	30	30	30	30	30	30	30	29	26	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30		
MAX:	16.2	17.1	24.4	22.7	24.9	17.3	18.0	18.4	19.3	17.8	15.9	14.7	13.4	13.7	15.4	15.8	16.1	17.6	18.9	20.7	23.4	20.8	23.8	18.8		
AVG:	8.11	8.24	8.54	8.06	7.88	7.61	7.24	7.16	6.76	7.10	6.80	6.57	6.83	6.92	6.88	6.84	7.02	7.79	8.75	8.80	9.37	9.29	9.03	8.25		

MONTHLY OBSERVATIONS: 712 MONTHLY MEAN: 7.75 MONTHLY MAX: 24.9

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: 28-033-0002 POC: 3
COUNTY: (033) DeSoto
CITY: (31780) Hernando
SITE ADDRESS: 5 EAST SOUTH ST. (HERNANDO)
SITE COMMENTS: SW CRN OF DESOTA CO SCH BUS PARKING & MAINT SHOP AREA
MONITOR COMMENTS:

STATE: (28) Mississippi
AQCR: (018) METROPOLITAN MEMPHIS
URBANIZED AREA: (4920) MEMPHIS, TN-AR-MS
LAND USE: COMMERCIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 34.82056
LONGITUDE: -89.98778
UTM ZONE:
UTM NORTHING:
UTM EASTING:
ELEVATION-MSL: 117
PROBE HEIGHT: 5

SUPPORT AGENCY: (0703) Mississippi DEQ, Office Of Pollution
MONITOR TYPE: SLAMS
COLLECTION AND ANALYSIS METHOD: (636) Teledyne T640 at 5.0 LPM w/Network
PQAO: (0703) Mississippi DEQ, Office Of Pollution

REPORT FOR: DECEMBER 2024

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

DAY	HOUR 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	4.4	4.1	4.0	4.1	4.8	4.4	4.6	4.6	4.8	5.8	5.9	6.6	10.7	15.8	17.6	16.8	15.7	17.1	16.7	18.4	19.3	19.9	16.0	15.7	24	19.9
2	15.3	14.7	13.6	14.1	14.0	13.5	13.8	13.9	10.4	9.1	9.3	9.2	8.3	6.9	7.2	8.3	8.1	9.4	10.8	10.8	13.3	11.8	9.5	9.8	24	15.3
3	14.0	13.7	9.6	9.0	8.9	9.1	9.2	8.6	10.5	12.5	10.6	8.8	7.0	6.2	5.8	5.9	5.2	5.4	8.1	11.8	22.9	20.3	12.3	10.9	24	22.9
4	9.6	8.4	8.2	8.3	10.3	13.0	12.9	13.9	12.5	10.6	8.9	10.5	11.5	15.6	11.0	8.6	7.1	7.1	7.6	8.6	7.2	7.6	8.6	8.7	24	15.6
5	10.0	12.7	13.9	14.7	13.4	8.7	5.1	3.4	3.1	3.6	3.8	4.2	4.7	5.6	5.5	5.6	5.4	5.4	5.6	5.6	5.7	5.5	4.7	4.5	24	14.7
6	4.3	4.0	3.9	4.0	4.2	4.3	4.5	4.5	5.2	5.4	5.3	5.5	5.3	5.5	5.7	5.6	6.1	5.8	6.4	7.3	13.6	12.9	15.0	9.5	24	15.0
7	8.5	6.4	5.9	5.8	5.2	5.6	5.4	5.2	5.3	4.5	4.2	7.5	4.0	3.1	2.8	2.9	3.7	6.4	5.2	4.8	4.4	4.4	5.7	5.2	24	8.5
8	4.3	4.2	3.9	4.1	4.5	4.9	5.0	5.2	5.2	5.4	5.6	5.8	7.2	7.5	7.8	7.5	6.2	5.0	5.0	3.8	3.1	1.8	2.0	2.0	24	7.8
9	2.2	1.7	2.5	3.4	4.5	5.8	7.6	8.3	8.1	7.2	7.3	8.2	8.0	8.2	8.2	9.0	9.2	10.3	11.2	12.2	11.9	11.8	12.1	13.0	24	13.0
10	12.9	12.9	12.7	12.7	13.0	13.5	12.3	11.5	11.2	8.7	7.8	8.8	7.2	8.5	10.6	11.2	14.5	13.5	10.3	7.8	4.5	3.6	3.4	3.0	24	14.5
11	1.5	1.8	2.0	2.5	2.6	2.8	3.2	3.5	3.4	AZ	3.5	3.4	3.0	2.9	2.8	2.4	2.0	2.7	2.9	8.1	12.3	7.2	6.8	4.5	23	12.3
12	4.0	4.4	4.3	4.1	4.0	3.7	3.6	4.1	3.6	3.0	2.7	2.6	2.3	2.3	2.0	2.1	4.3	4.3	13.6	4.1	3.7	5.1	4.4	4.5	24	13.6
13	3.9	4.0	3.8	3.7	3.9	4.1	4.4	5.1	5.1	4.7	4.5	4.8	4.9	4.6	4.3	4.4	4.5	5.0	5.5	5.8	5.8	6.2	6.1	6.6	24	6.6
14	7.1	6.4	6.1	6.0	5.5	5.3	5.8	5.8	5.9	6.3	5.9	5.6	5.5	5.8	5.6	5.8	5.4	5.3	5.4	5.5	5.4	4.9	5.7	5.6	24	7.1
15	5.8	6.5	6.1	5.8	5.2	5.7	5.7	5.7	6.2	6.0	5.4	4.6	6.0	4.4	3.2	4.1	6.6	6.5	3.9	3.2	4.0	6.7	9.4	11.8	24	11.8
16	12.3	12.0	10.0	9.9	9.2	7.8	6.3	5.8	5.7	5.1	4.6	4.3	4.3	4.9	5.4	5.6	5.7	5.7	6.2	6.4	2.9	3.0	3.6	4.2	24	12.3
17	4.7	3.7	5.6	7.4	6.7	5.7	4.5	4.1	4.3	4.3	4.8	4.8	5.2	5.7	6.0	6.1	7.1	8.7	7.7	7.3	7.0	6.5	5.7	5.8	24	8.7
18	6.3	6.7	7.3	7.1	7.3	7.1	4.2	3.0	3.3	3.8	3.8	4.8	6.6	5.9	3.3	3.0	2.7	2.9	3.5	4.4	4.5	4.5	4.3	4.0	24	7.3
19	3.9	4.6	5.1	6.0	6.6	6.8	7.5	8.8	9.0	8.2	6.9	7.3	5.5	3.9	3.1	3.3	2.9	2.7	5.6	15.2	14.9	13.1	5.3	5.9	24	15.2
20	4.6	4.5	4.5	4.8	5.2	6.0	6.5	5.6	4.6	5.2	5.4	5.2	5.5	6.4	6.8	6.9	7.3	7.6	8.1	9.0	8.8	9.0	9.6	10.2	24	10.2
21	10.8	11.0	11.4	11.2	12.0	11.9	12.7	12.8	11.8	10.0	8.2	7.1	6.3	6.0	6.0	5.4	4.8	4.7	4.9	6.7	7.0	10.6	11.2	12.1	24	12.8
22	9.0	9.1	7.8	8.2	8.1	7.2	7.5	7.7	6.5	5.9	4.9	4.7	4.0	3.6	3.3	3.1	3.1	3.4	3.2	3.5	3.4	3.3	3.5	3.8	24	9.1
23	3.8	3.9	3.9	3.8	4.2	4.4	4.4	4.5	AZ	5.2	5.2	6.7	6.3	6.1	6.4	8.0	7.0	6.9	9.1	6.3	6.4	6.5	6.7	6.5	23	9.1
24	6.9	7.4	7.4	7.3	7.3	7.2	7.2	7.0	7.3	8.1	8.2	7.8	8.3	8.9	9.0	8.1	8.2	8.5	9.6	12.4	10.6	10.9	10.5	11.0	24	12.4
25	11.9	13.3	12.8	11.1	10.7	11.0	10.5	10.1	10.2	10.1	11.3	10.8	9.8	9.5	9.0	9.4	8.6	9.2	9.9	8.6	7.7	6.9	6.9	7.1	24	13.3
26	7.0	6.8	7.2	7.3	7.6	7.4	6.9	6.7	6.3	5.9	6.4	7.0	7.2	6.6	6.8	7.1	8.8	8.9	8.6	7.2	6.7	6.9	5.9	4.5	24	8.9
27	3.5	3.3	2.4	2.7	2.9	2.5	2.6	3.4	4.6	5.4	5.0	4.1	4.5	4.7	4.6	4.9	6.3	6.8	6.1	6.3	6.5	6.2	6.7	6.9	24	6.9
28	7.2	9.3	10.7	11.0	10.9	10.7	10.4	10.9	10.7	10.6	11.0	11.8	10.4	6.9	4.5	2.3	2.1	1.6	1.6	1.6	1.8	1.6	2.1	1.4	24	11.8
29	1.0	.4	.2	.4	2.2	2.8	3.2	4.3	5.6	6.4	6.6	6.7	6.5	6.4	6.0	5.5	5.0	5.2	5.2	4.7	5.1	5.3	5.5	6.1	24	6.7
30	6.3	6.6	7.8	9.0	9.5	9.7	9.3	9.3	8.6	7.6	6.5	5.0	5.0	5.2	5.2	4.8	4.5	4.6	4.7	5.8	6.0	5.1	4.8	4.9	24	9.7
31	4.9	4.7	4.5	4.2	3.5	3.3	2.9	2.6	1.7	1.6	1.0	.8	.5	1.0	1.2	.7	.4	.7	.9	1.3	2.0	2.9	2.9	4.2	24	4.9
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:	15.3	14.7	13.9	14.7	14.0	13.5	13.8	13.9	12.5	12.5	11.3	11.8	11.5	15.8	17.6	16.8	15.7	17.1	16.7	18.4	22.9	20.3	16.0	15.7		
AVG:	6.84	6.88	6.75	6.89	7.03	6.96	6.76	6.77	6.69	6.54	6.15	6.29	6.18	6.28	6.02	5.95	6.08	6.36	6.87	7.24	7.69	7.48	7.00	6.90		

MONTHLY OBSERVATIONS: 742 MONTHLY MEAN: 6.69 MONTHLY MAX: 22.9

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.

QUALIFIER CODES:

Qualifier Code	Qualifier Description	Qualifier Type
AN	Machine Malfunction.	NULL
AV	Power Failure.	NULL
AZ	Q C Audit.	NULL
BA	Maintenance/Routine Repairs.	NULL
BC	Multi-point Calibration.	NULL
BL	QA Audit.	NULL
IF	Fire - Canadian.	INFORM
IM	Prescribed Fire.	INFORM
IT	Wildfire-U. S.	INFORM

Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional concurrence are shown in lower case.