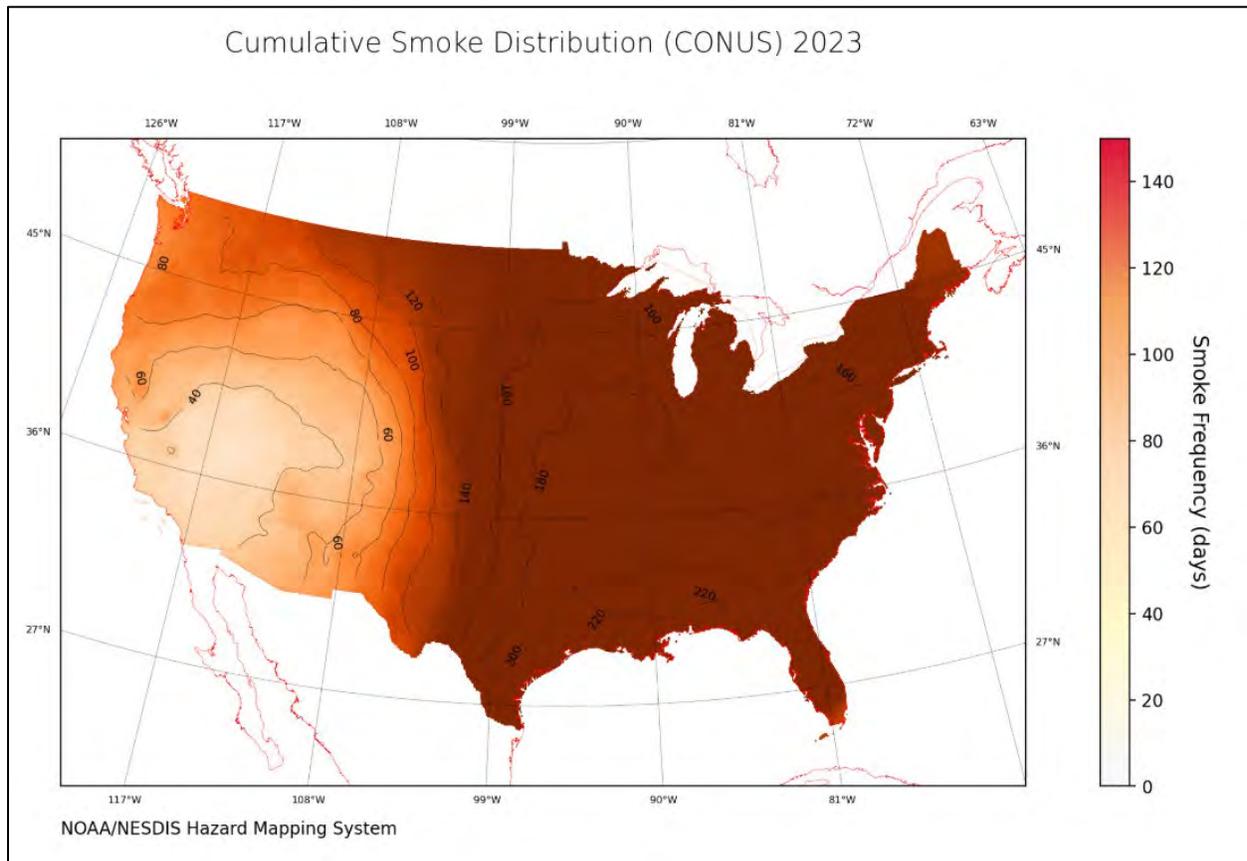


2023



Major 2023 Wildfires/Incidents:

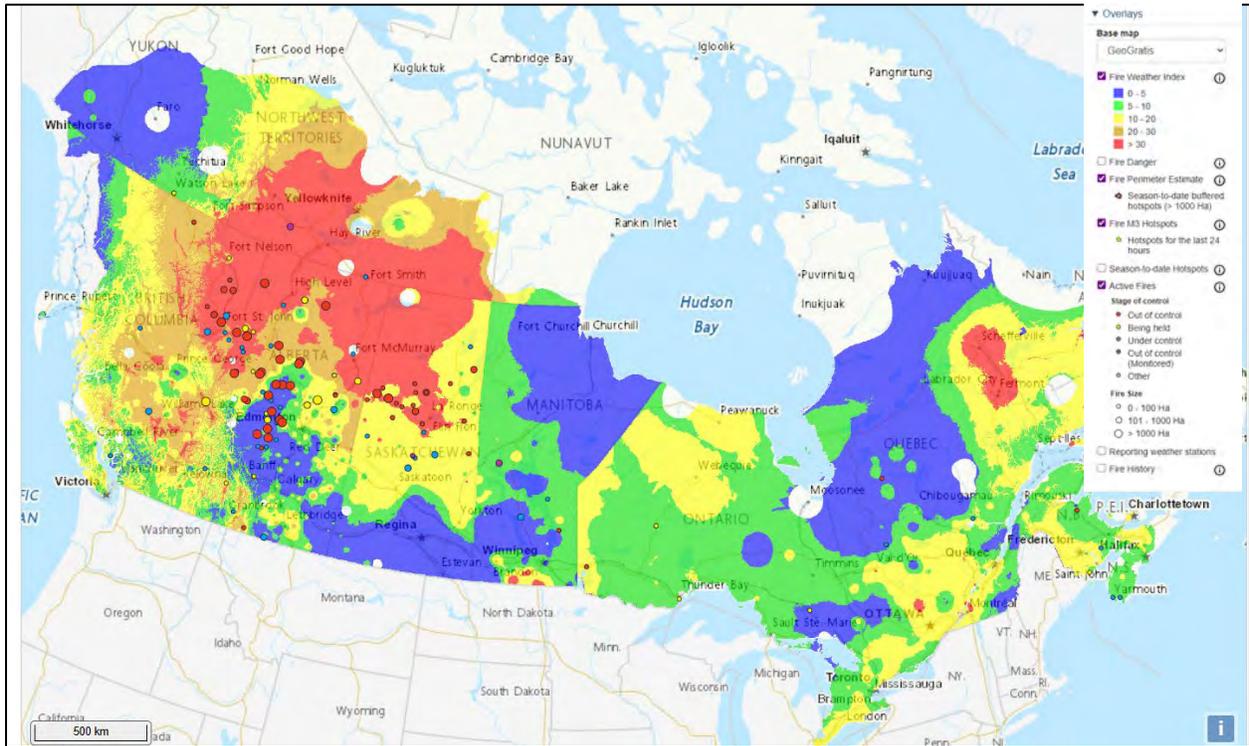
Canadian Wildfires¹⁴

U.S. agricultural burns (seasonal fires)

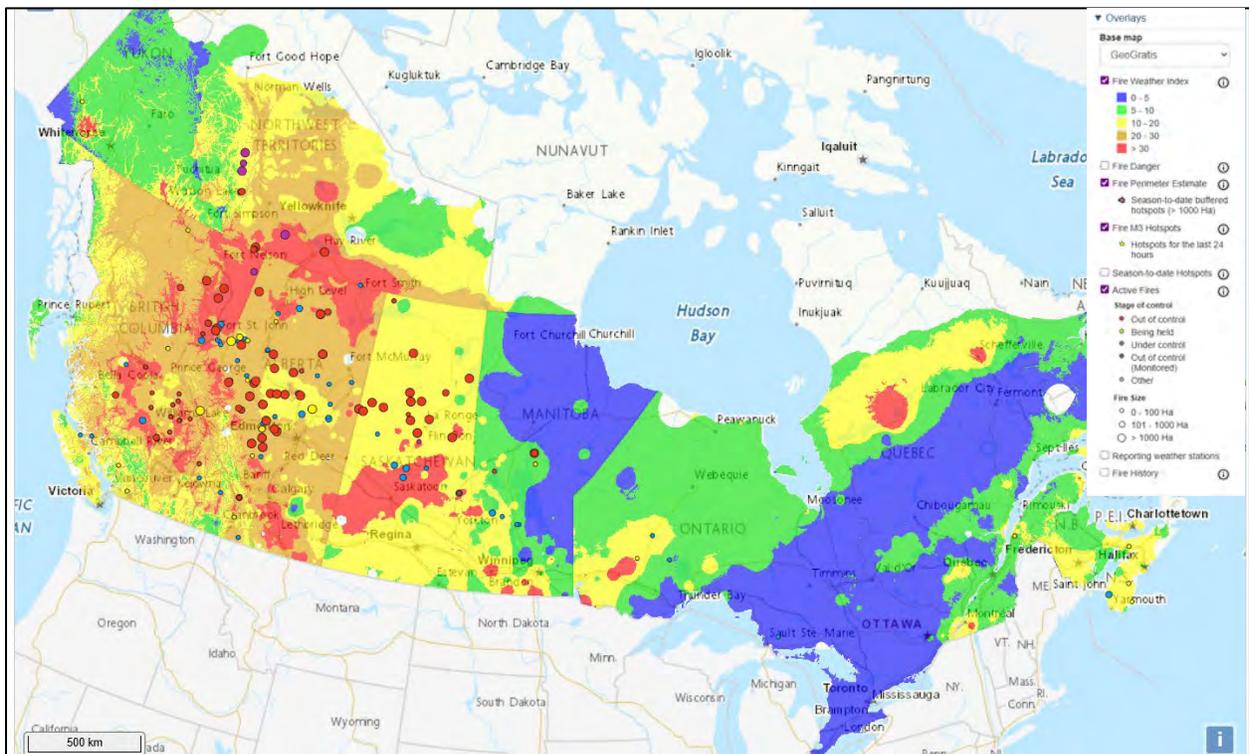
The Canadian Wildland Fire Information System (CWFIS) shows the fire weather and fire hotspots observed each day. Below are various dates through 2023 that shows the growth and extent of the wildfires in Canada from May to September. Smoke associated from these fires impacted the United States at various times. It is shown that wildfires were more prevalent in southeast Canada during the May – July period. Southwest and western wildfires, while burning during the entire spring and summer, ramped up more in the July – September period.

¹⁴ <https://cwfis.cfs.nrcan.gc.ca/interactive-map?zoom=1¢er=232891.20933093745%2C1125875.7762041301&month=6&day=24&year=2023#iMap>

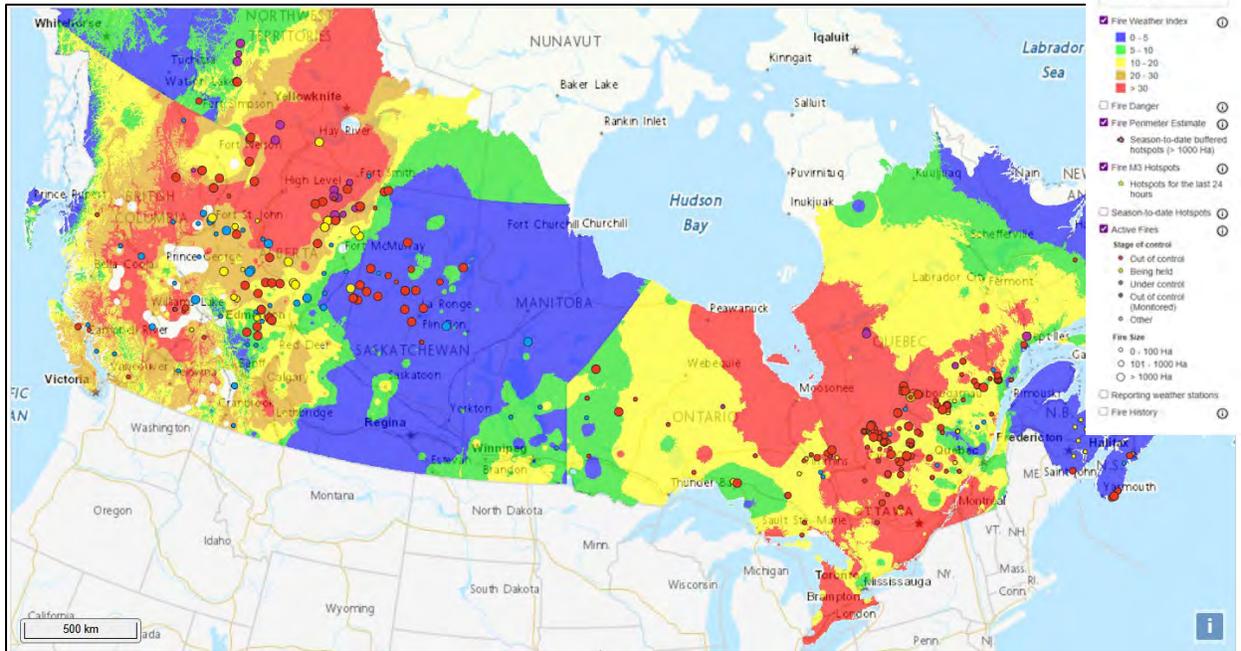
CWFIS fire weather and fire hotspots - May 12, 2023



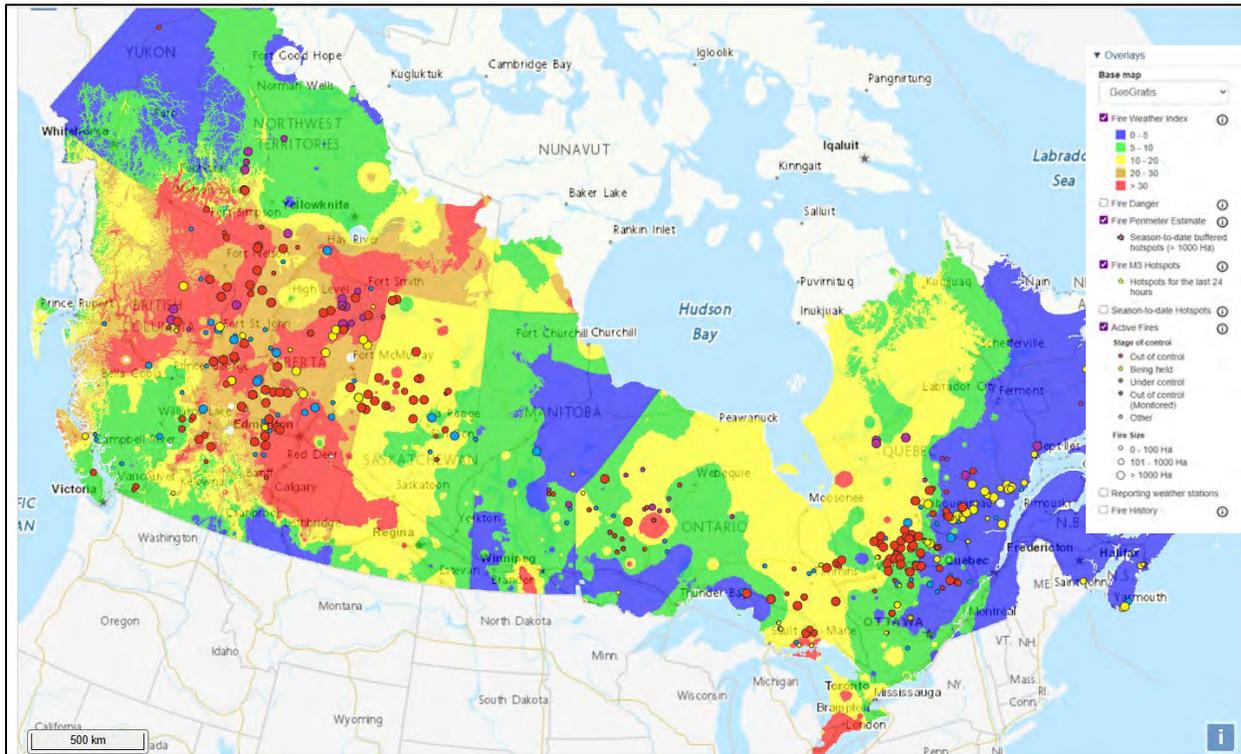
CWFIS fire weather and fire hotspots - May 20, 2023



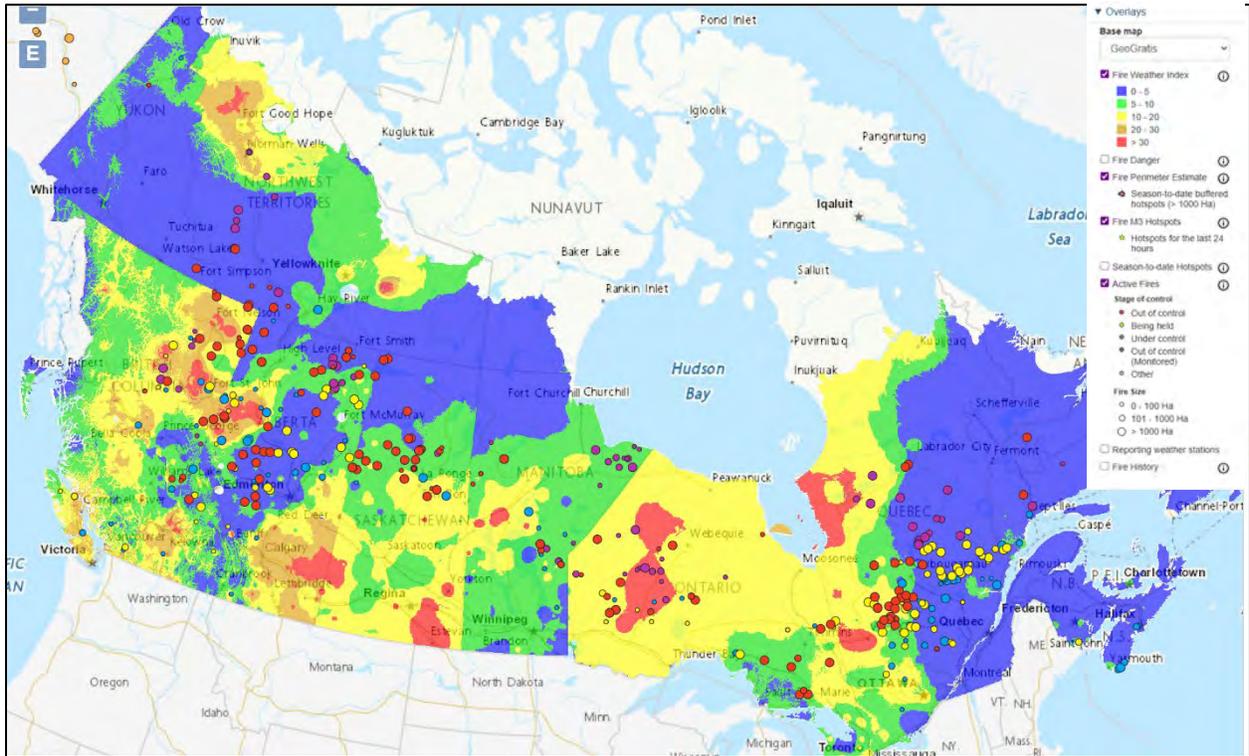
CWFIS fire weather and fire hotspots - June 3, 2023



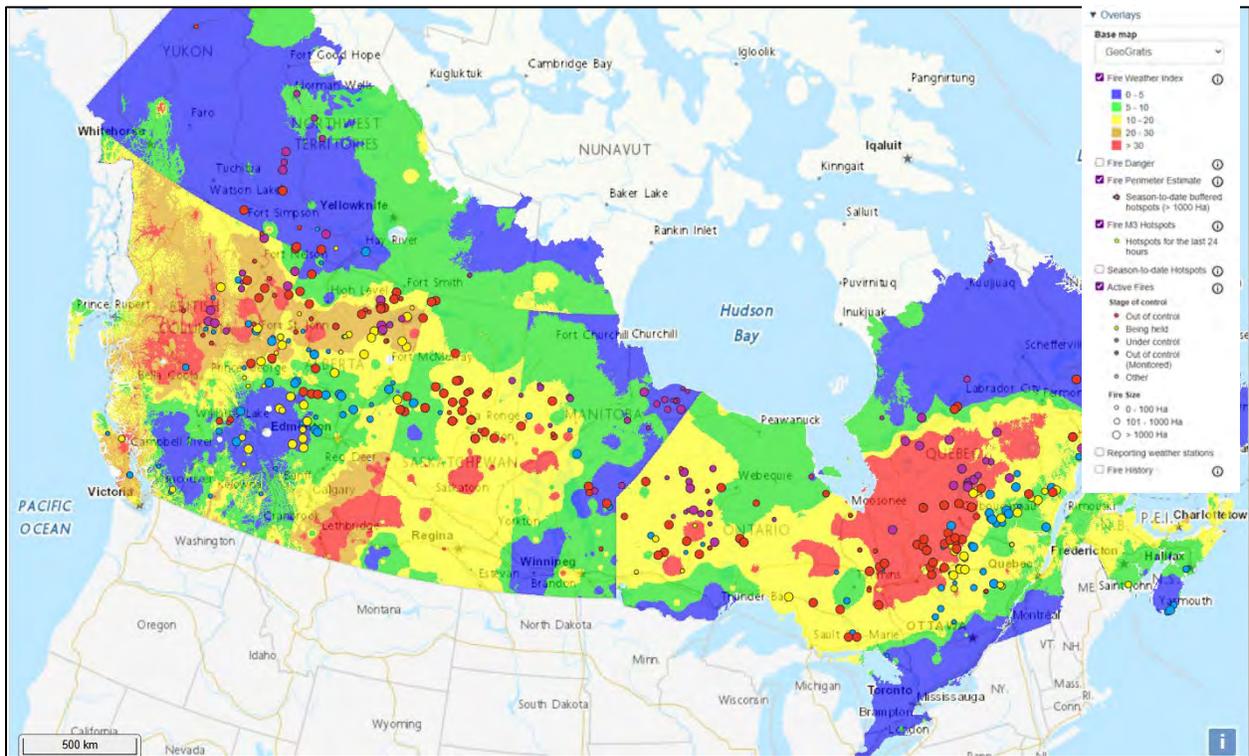
CWFIS fire weather and fire hotspots - June 10, 2023



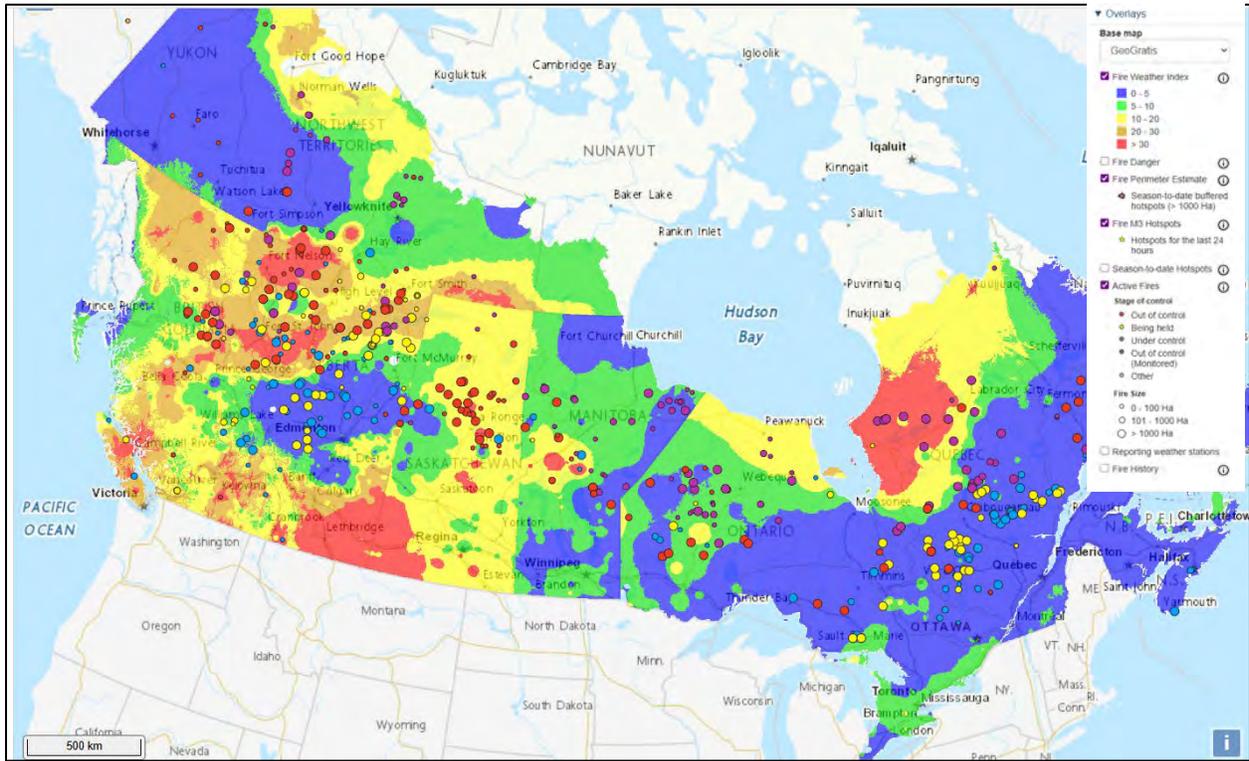
CWFIS fire weather and fire hotspots - June 17, 2023



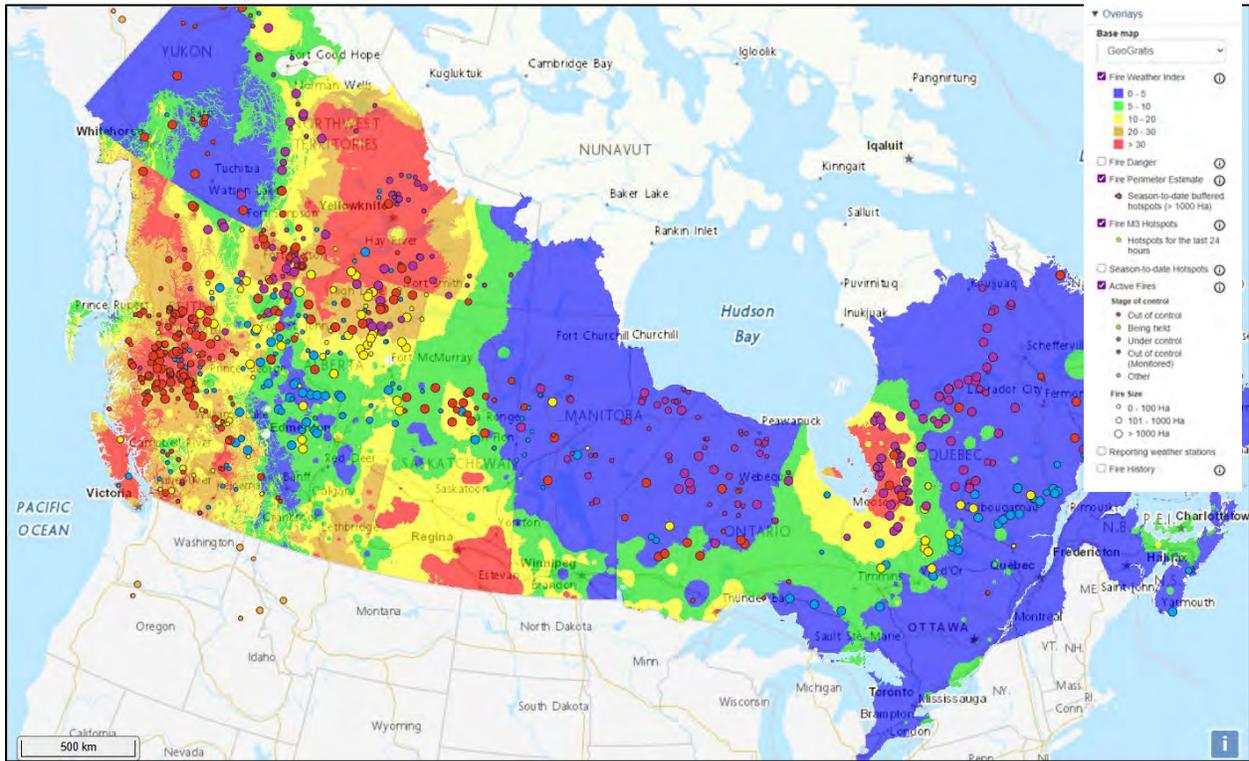
CWFIS fire weather and fire hotspots - June 24, 2023



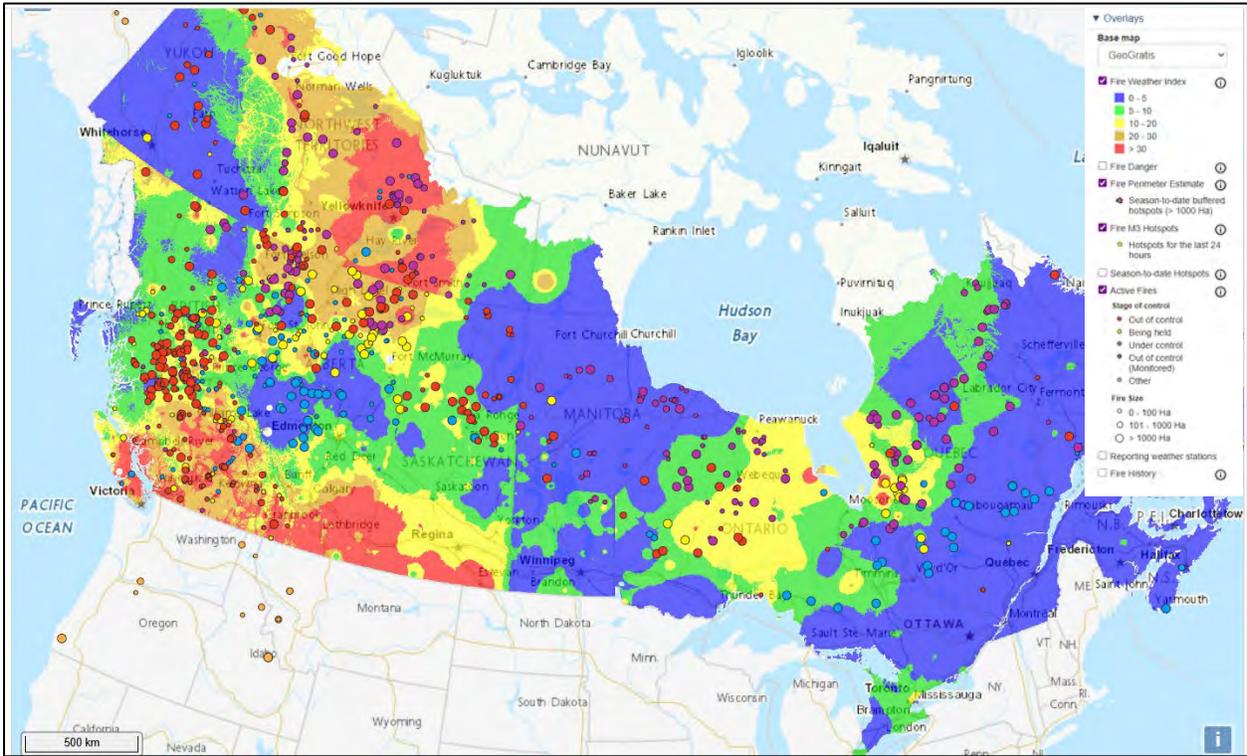
CWFIS fire weather and fire hotspots - July 1, 2023



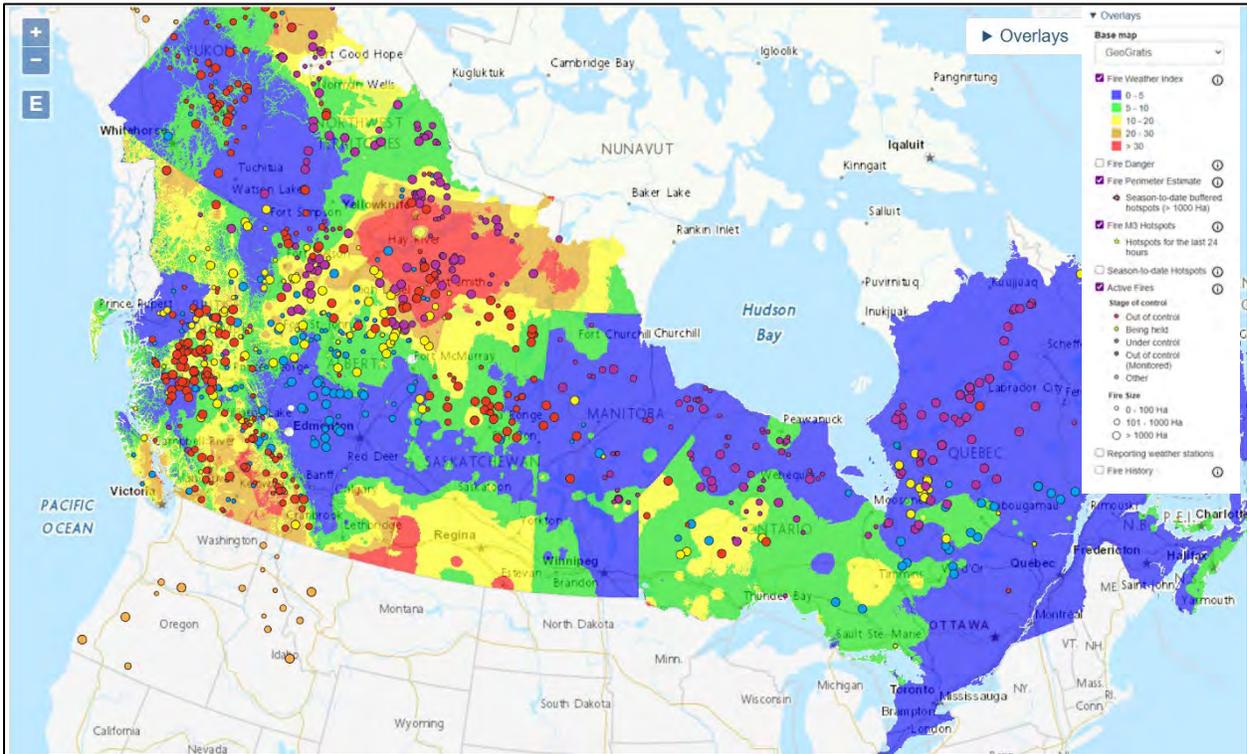
CWFIS fire weather and fire hotspots - July 15, 2023



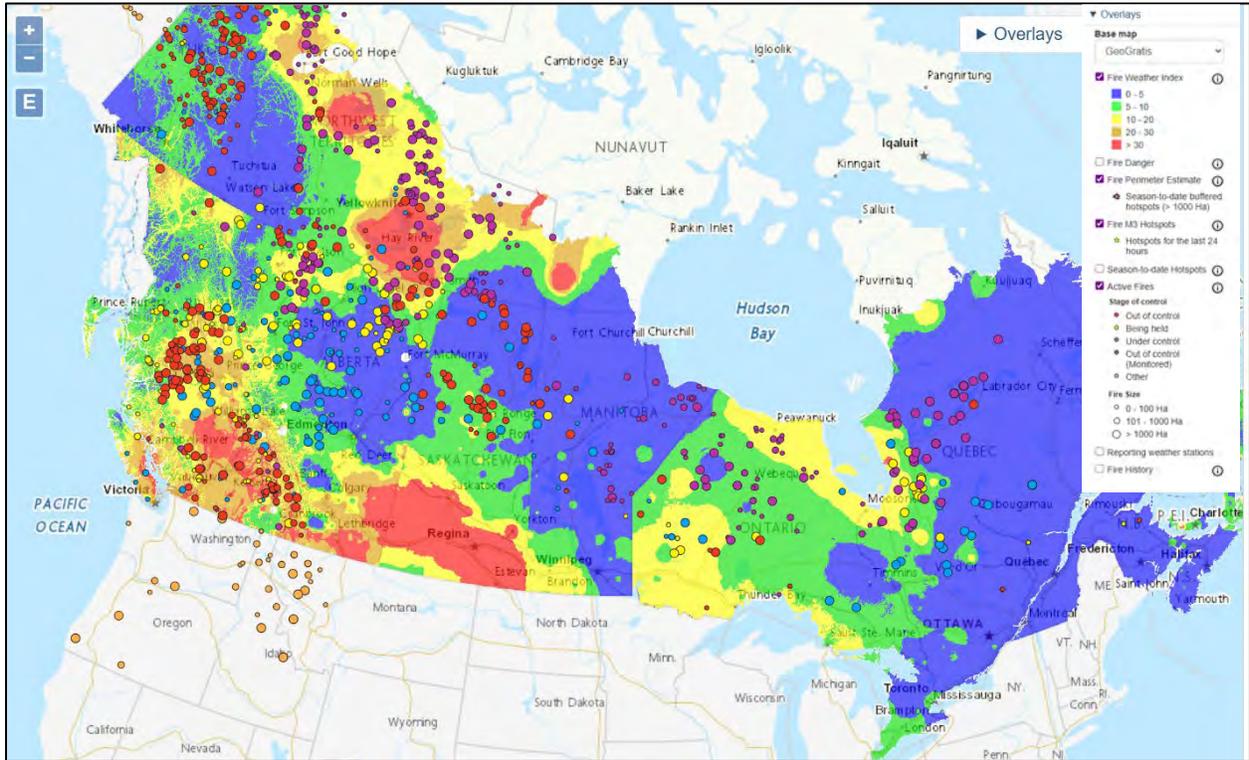
CWFIS fire weather and fire hotspots - July 22, 2023



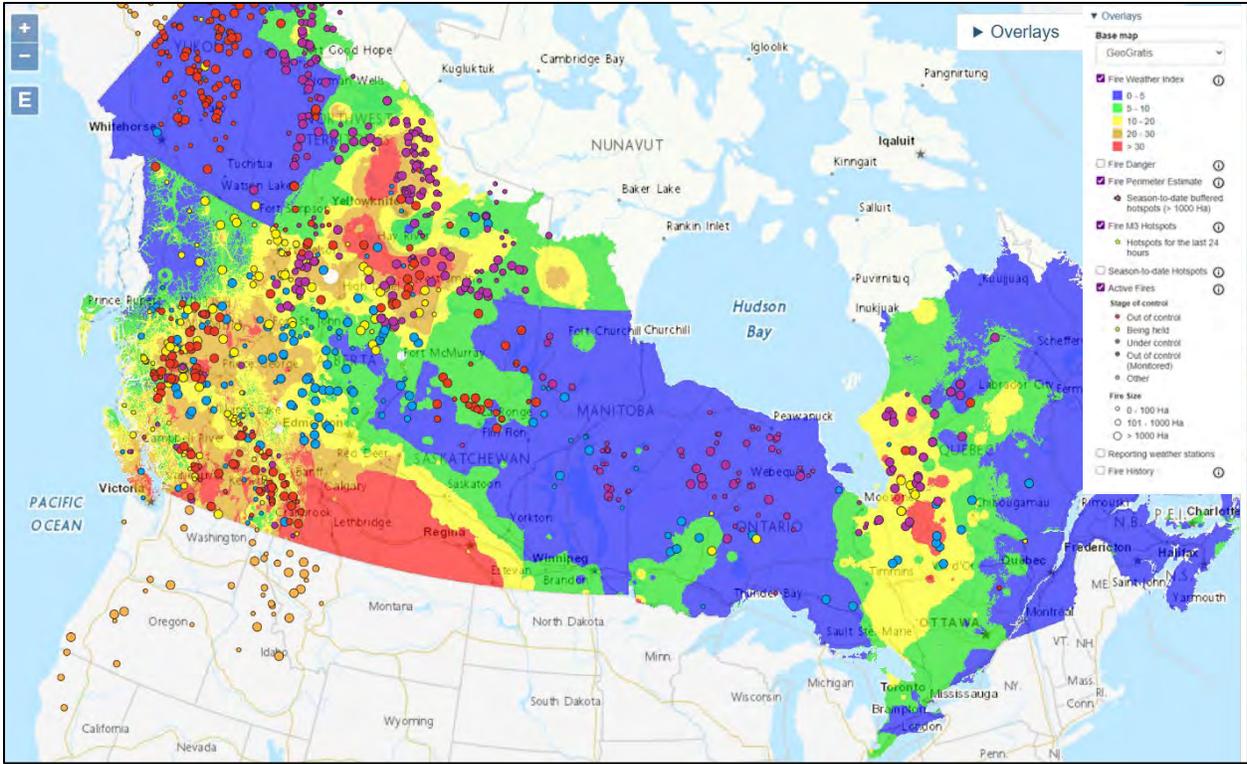
CWFIS fire weather and fire hotspots - July 29, 2023



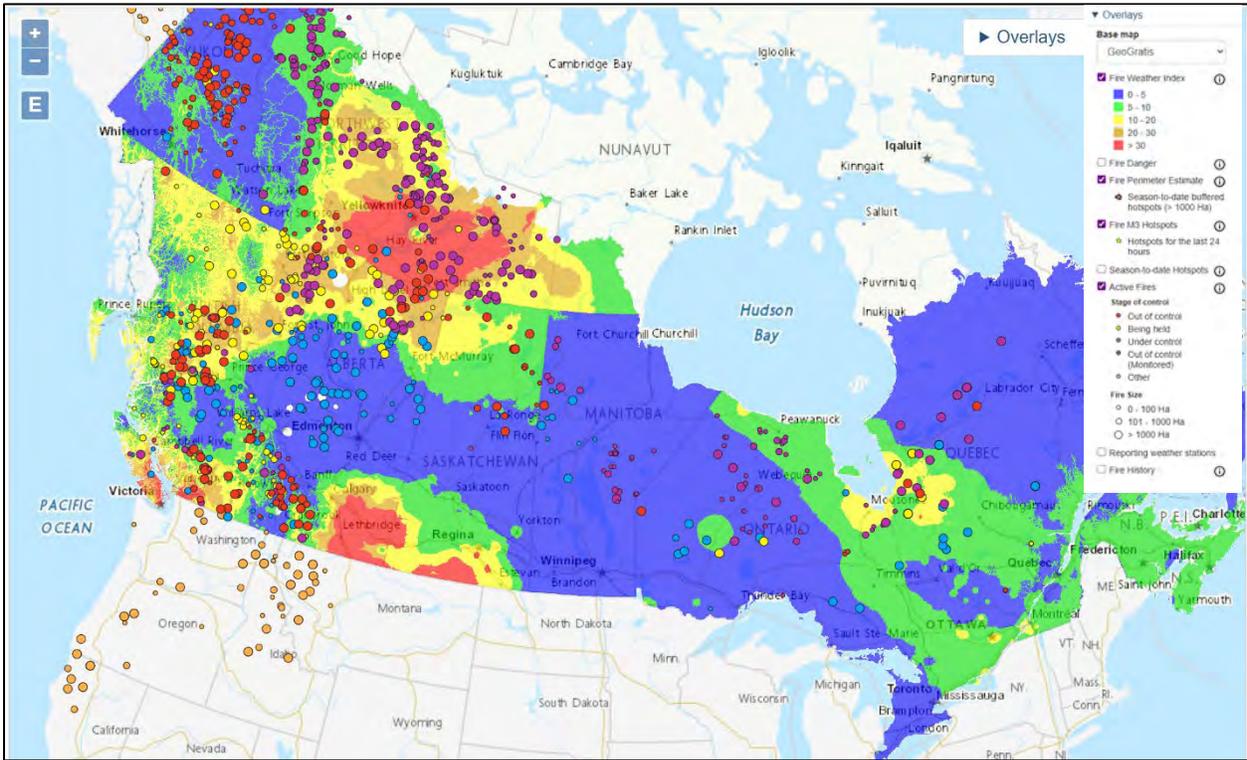
CWFIS fire weather and fire hotspots - August 5, 2023



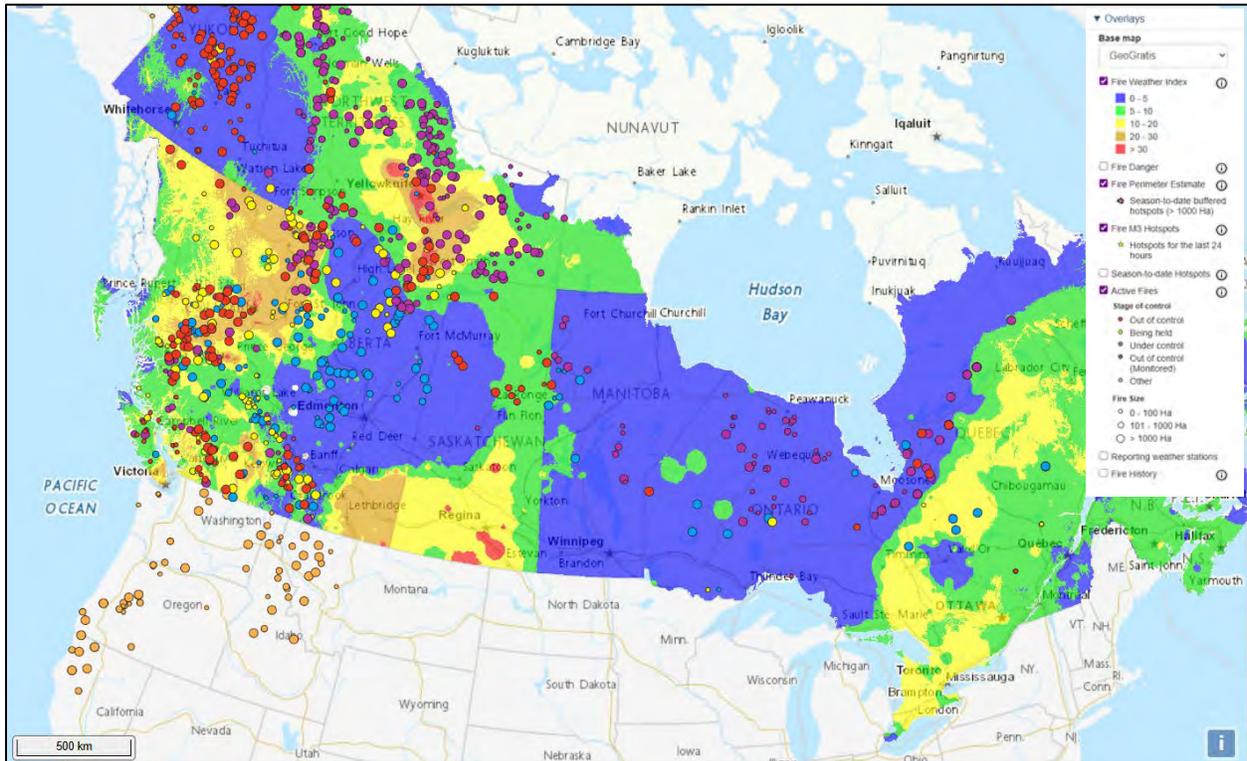
CWFIS fire weather and fire hotspots - August 17, 2023



CWFIS fire weather and fire hotspots - August 24, 2023



CWFIS fire weather and fire hotspots - September 6, 2023



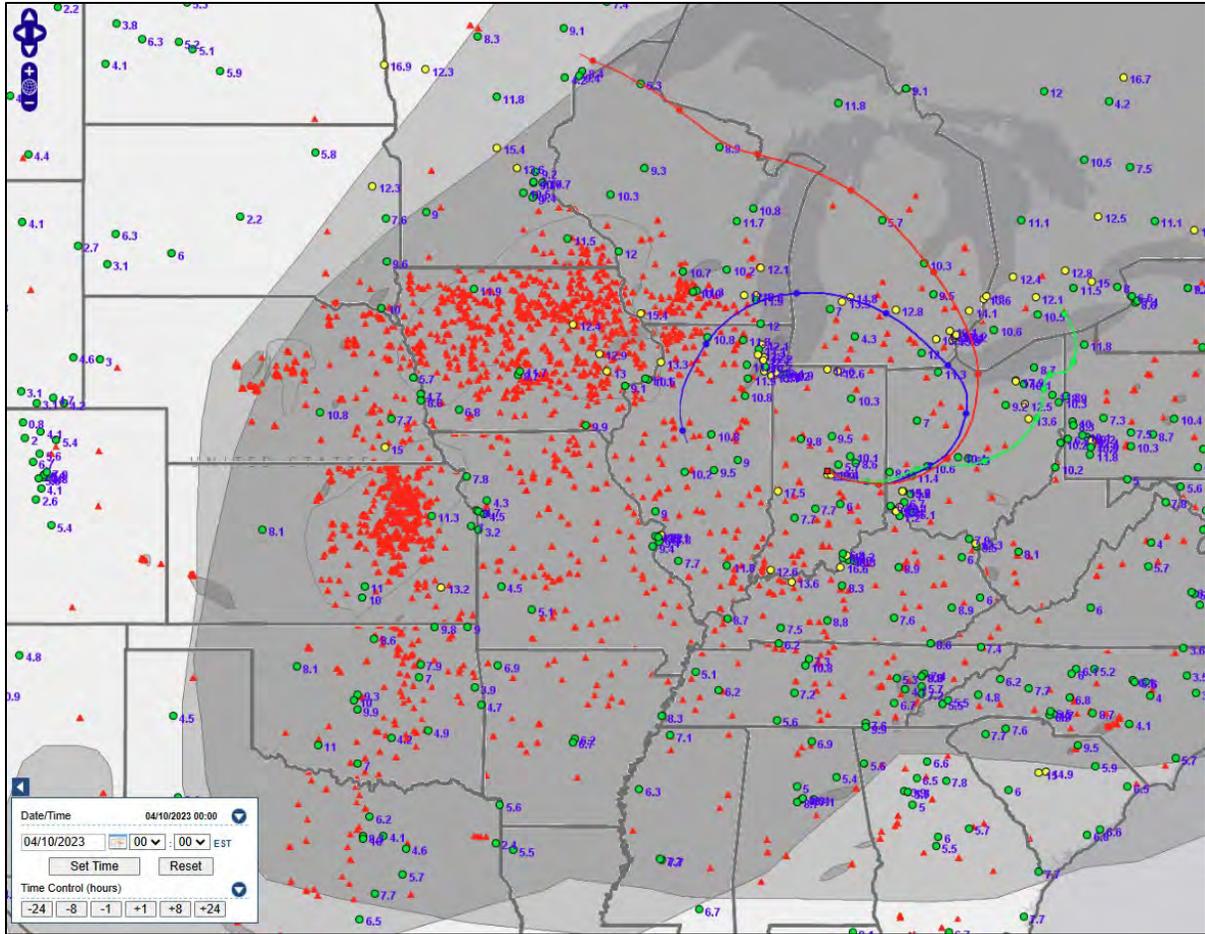
Daily wildfire and firework smoke impacts for 2023

April 10, 2023

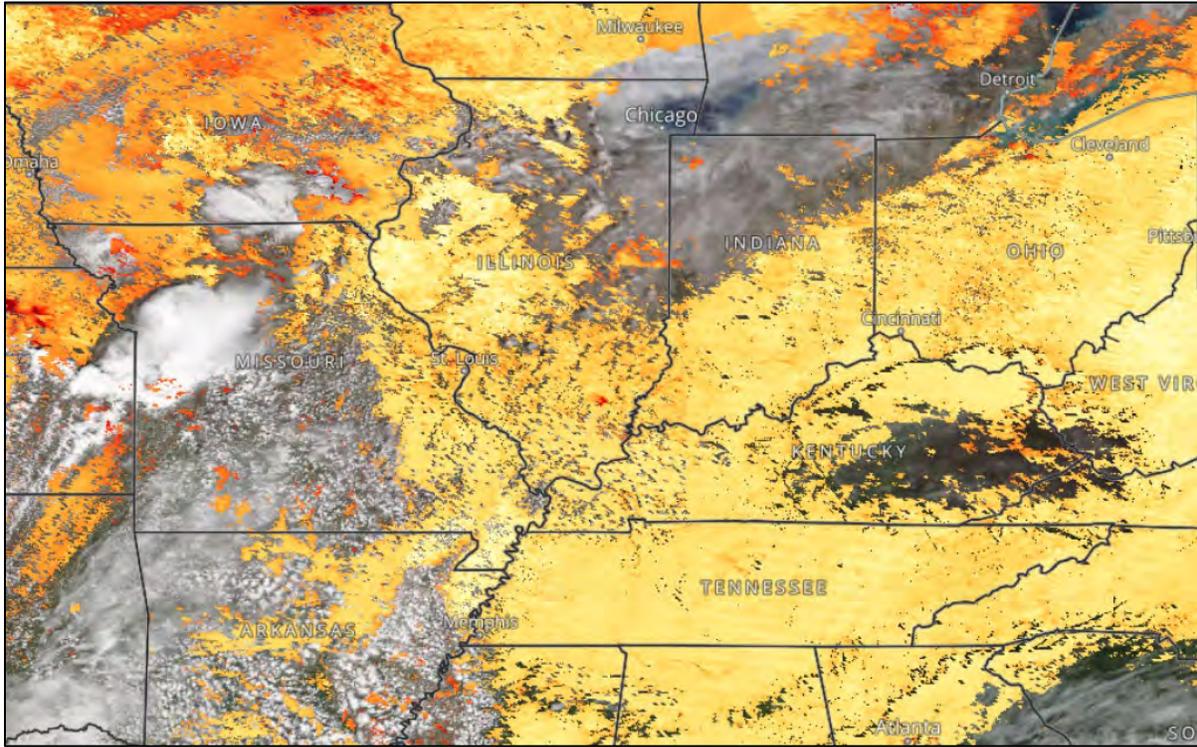
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - W. 18th St.	180970081	4/10/2023	22.8	20.9
Indianapolis - I-70 E	180970087	4/10/2023	27.3	20.5

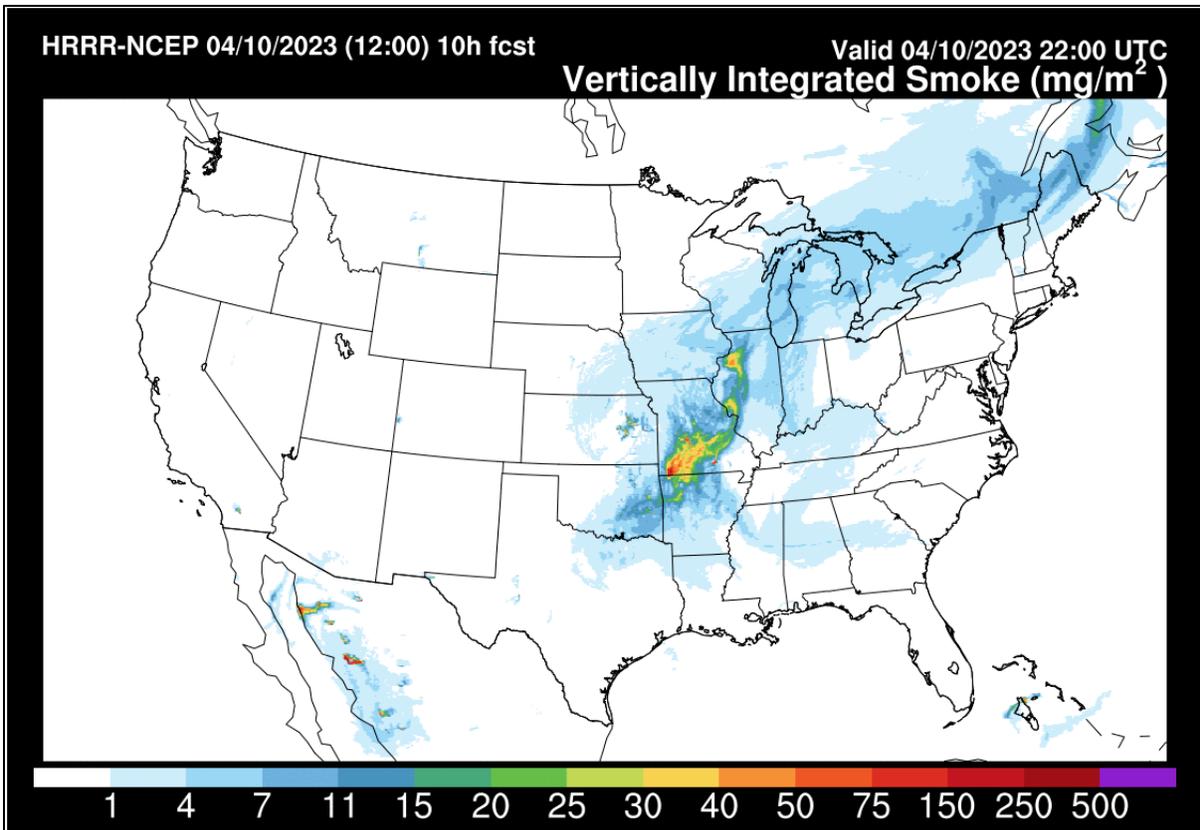
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – April 10, 2023

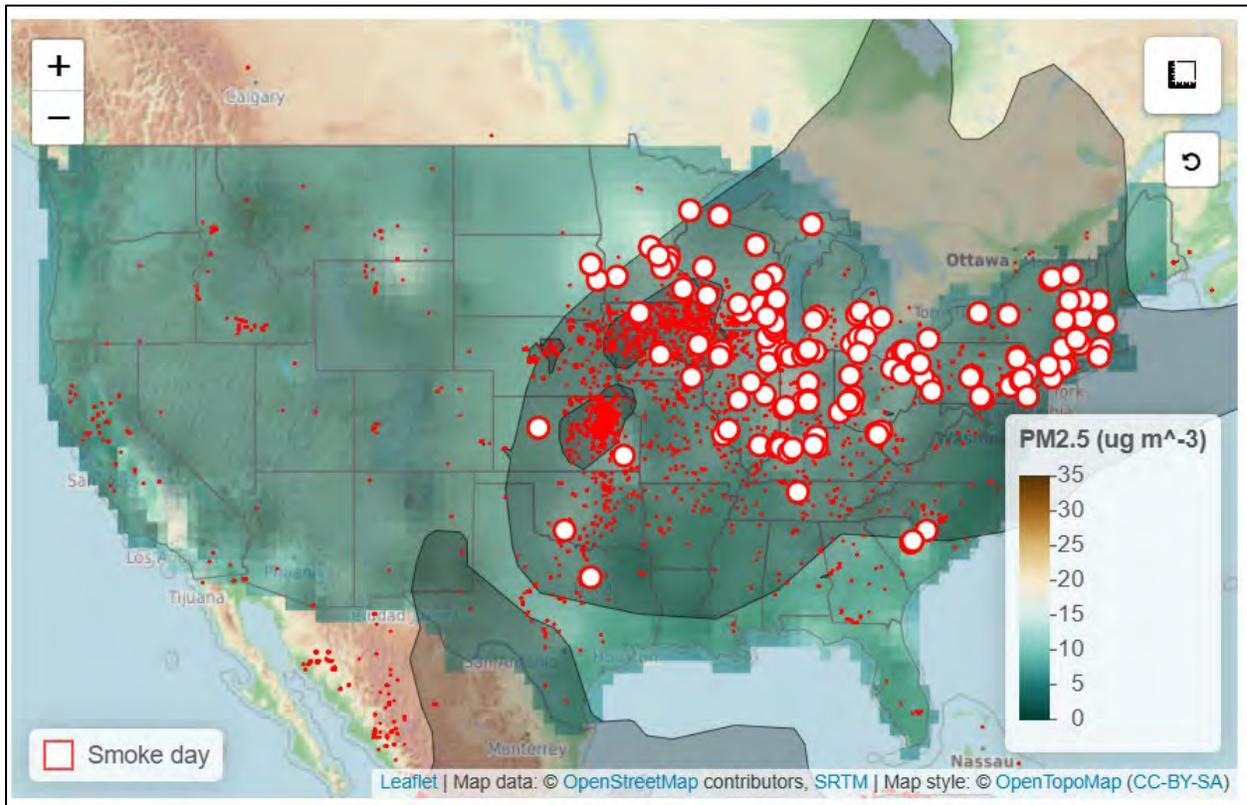


Satellite Imagery with MAIAC AOD – April 10, 2023



HRRR Smoke - Vertically Integrated Smoke – April 10, 2023



GAM PMO3 Smoke Output – April 10, 2023**NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts****Monday, April 10, 2023**

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1630Z April 10, 2023

SMOKE :

Central and Eastern U.S./Southeastern Canada/Atlantic Ocean...

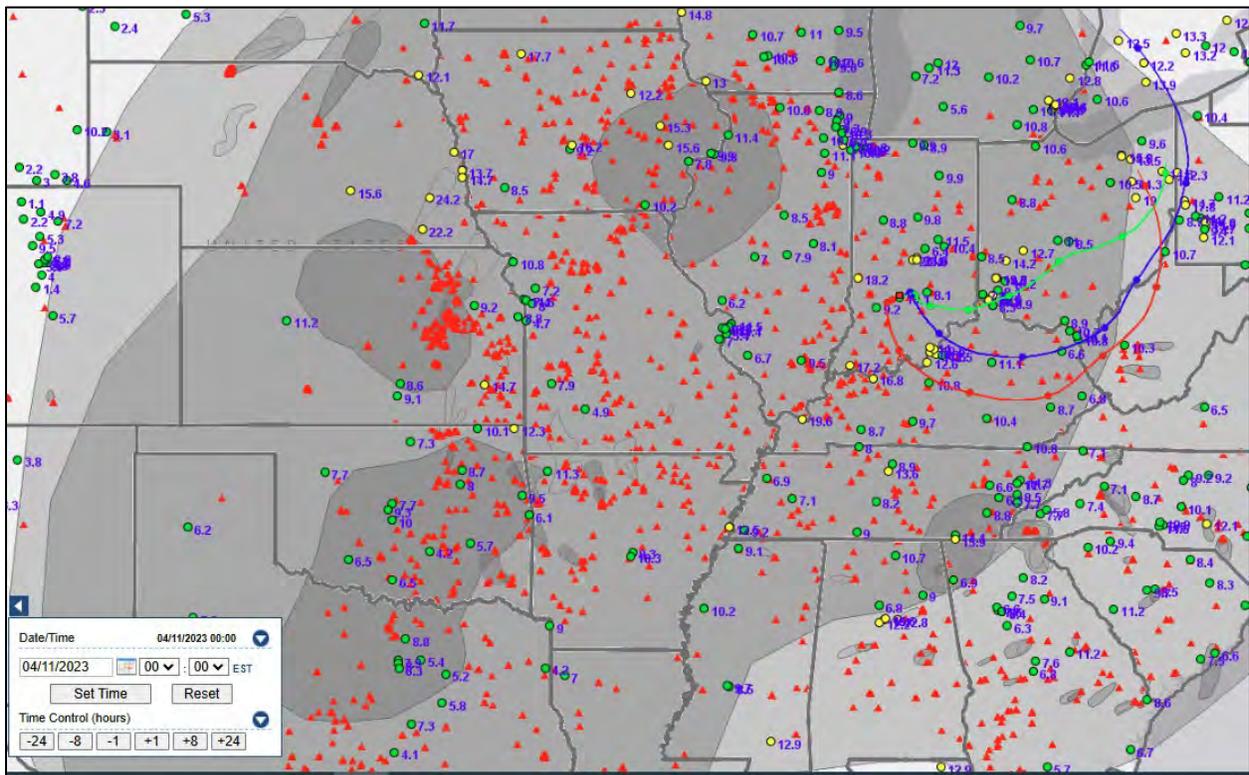
Significant rounds of seasonal burning the past few days across the central U.S. were responsible for a large area of mainly thin density smoke extending from Central U.S. eastward to the northeastern U.S., the Mid-Atlantic region, the northern portion of the southeastern U.S., and narrowing into a band off the coast of the Mid-Atlantic region and Northeast over the Atlantic Ocean passing just south of the coastal part of far southeastern Canada. The smoke also extended to the northeast over eastern Ontario and southern Quebec in southeastern Canada.

April 11, 2023

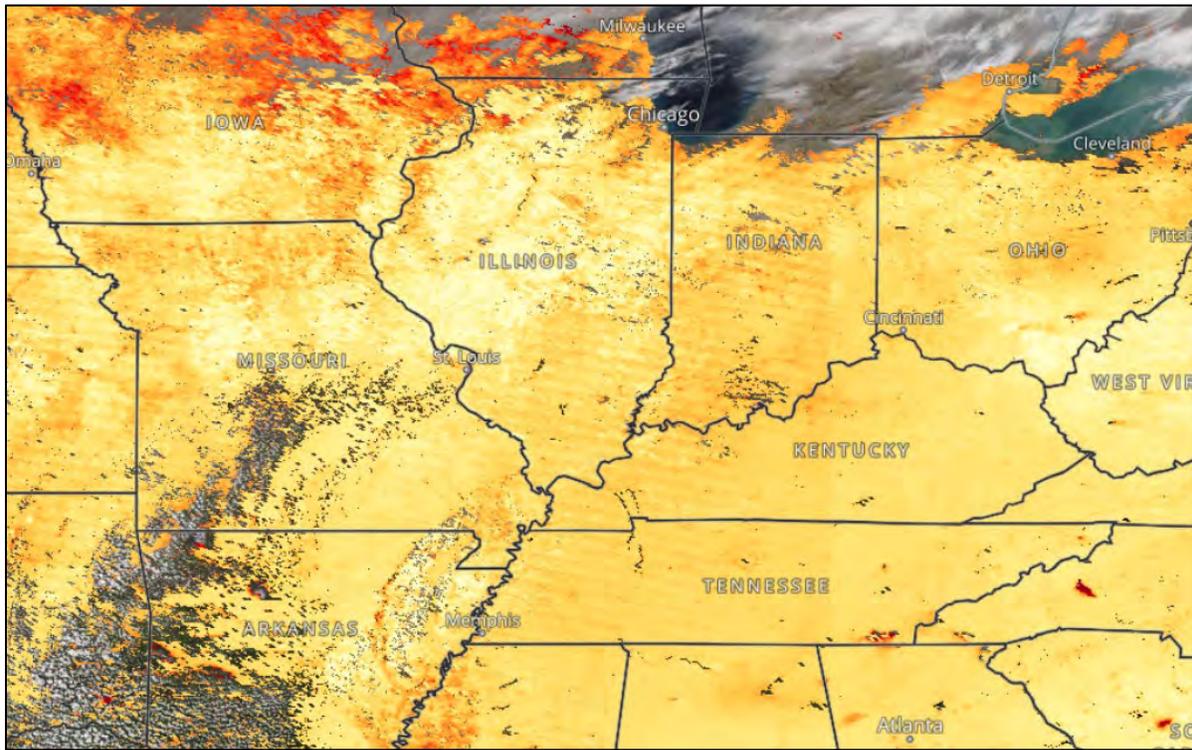
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Jeffersonville - Bates-Bowyer Ave	180190010	4/11/2023	18.0	17.0
Indianapolis - Washington Park	180970078	4/11/2023	23.1	17.8
Indianapolis - W. 18th St.	180970081	4/11/2023	22.4	20.9
Indianapolis- I-70 E	180970087	4/11/2023	32.3	20.5

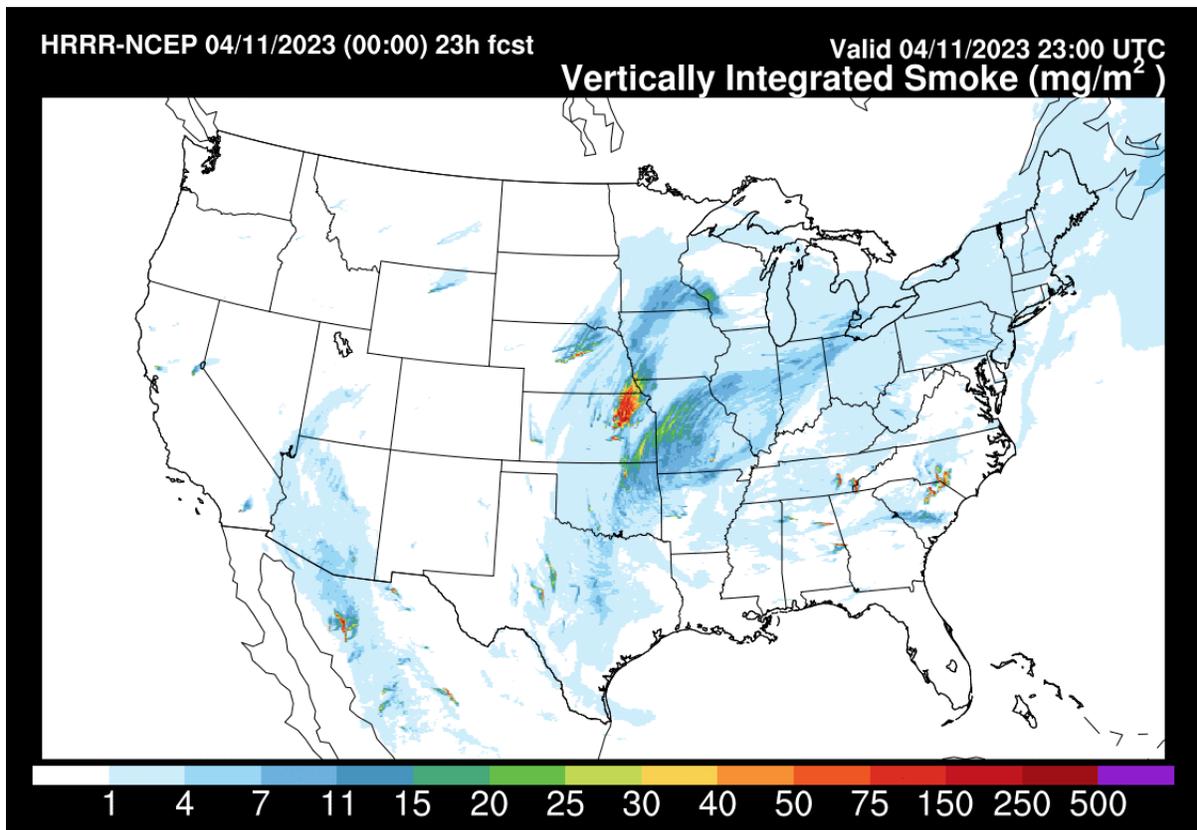
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – April 11, 2023



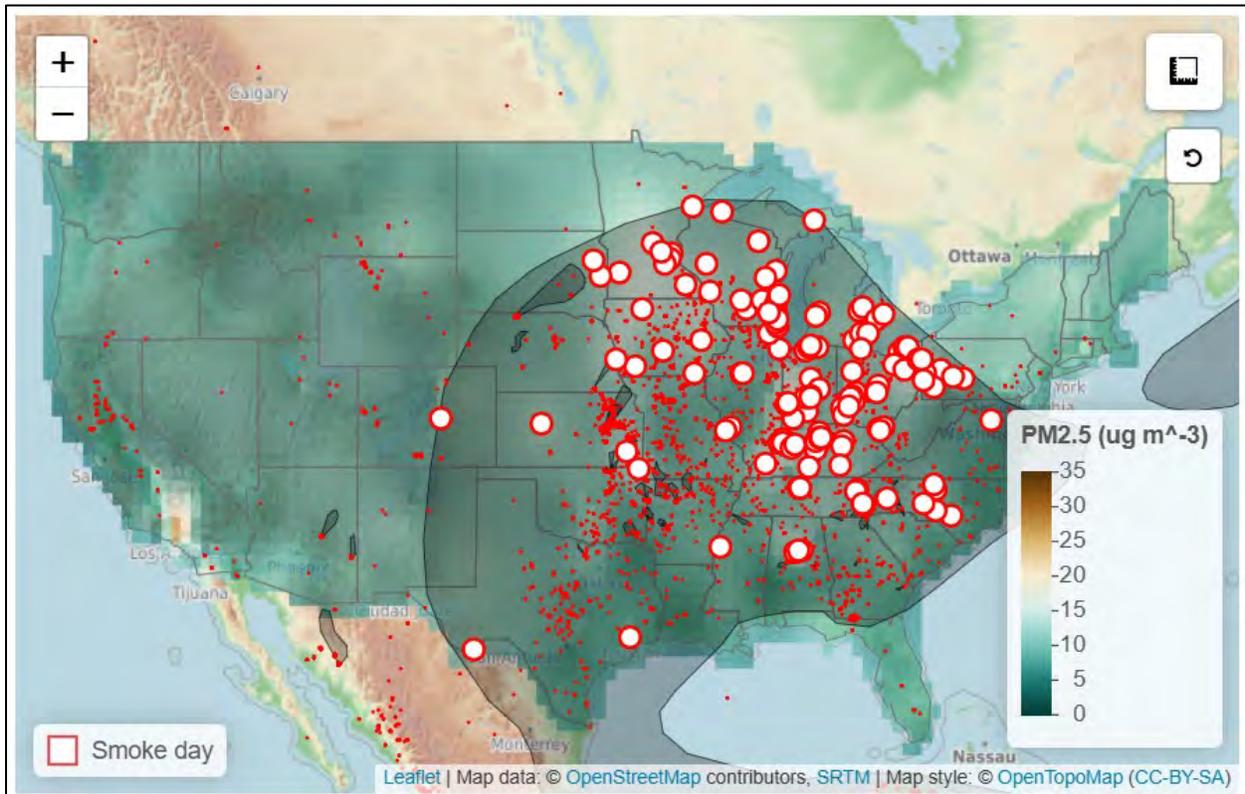
Satellite Imagery with MAIAC AOD – April 11, 2023



HRRR Smoke - Vertically Integrated Smoke – April 11, 2023



GAM PMO3 Smoke Output – April 11, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Tuesday, April 11, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z April 11, 2023

SMOKE:

Central and Eastern CONUS...

An area of light remnant smoke was observed mainly across the Plains and Upper Midwest, although another smaller area was noted across eastern Tennessee and northern Alabama. This is remnant from yesterday's fire activity.

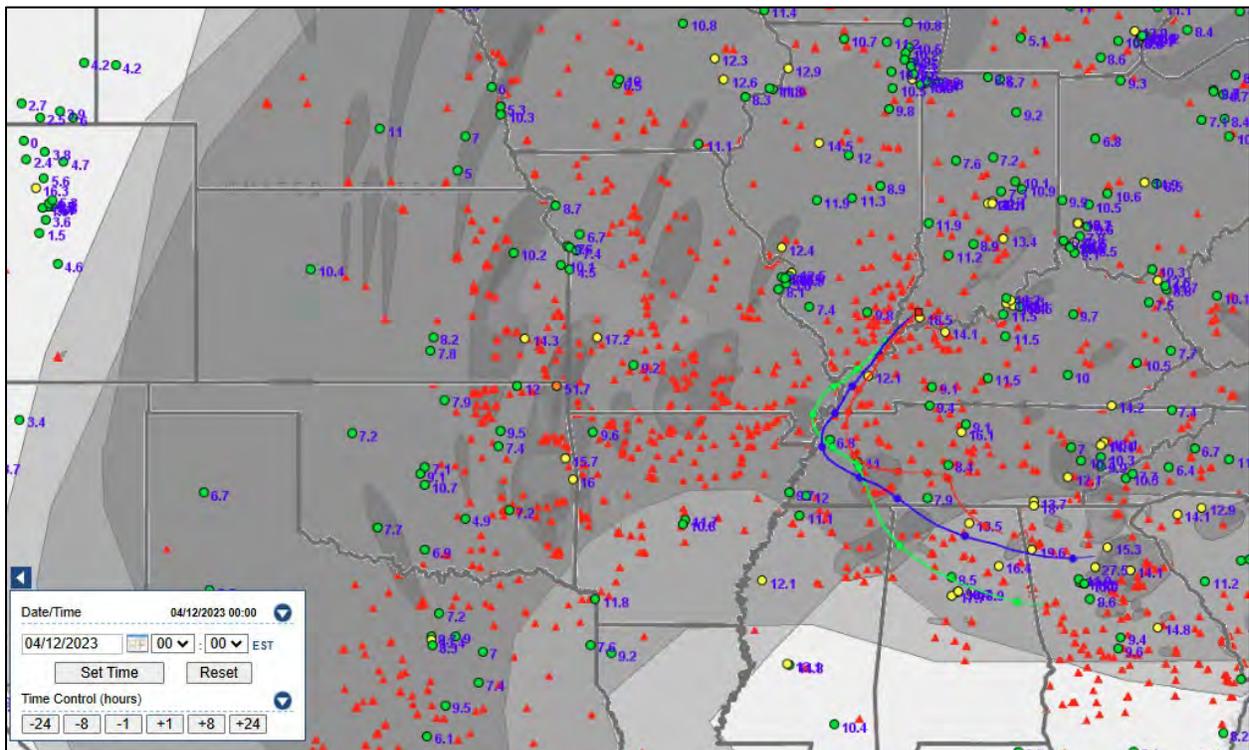
Active fire emissions were also noted scattered across the Plains and southeast, with smoke moving north-northeastward from fire activity in eastern Kansas while smoke across the Southeast smoke was moving west-southwest

April 12, 2023

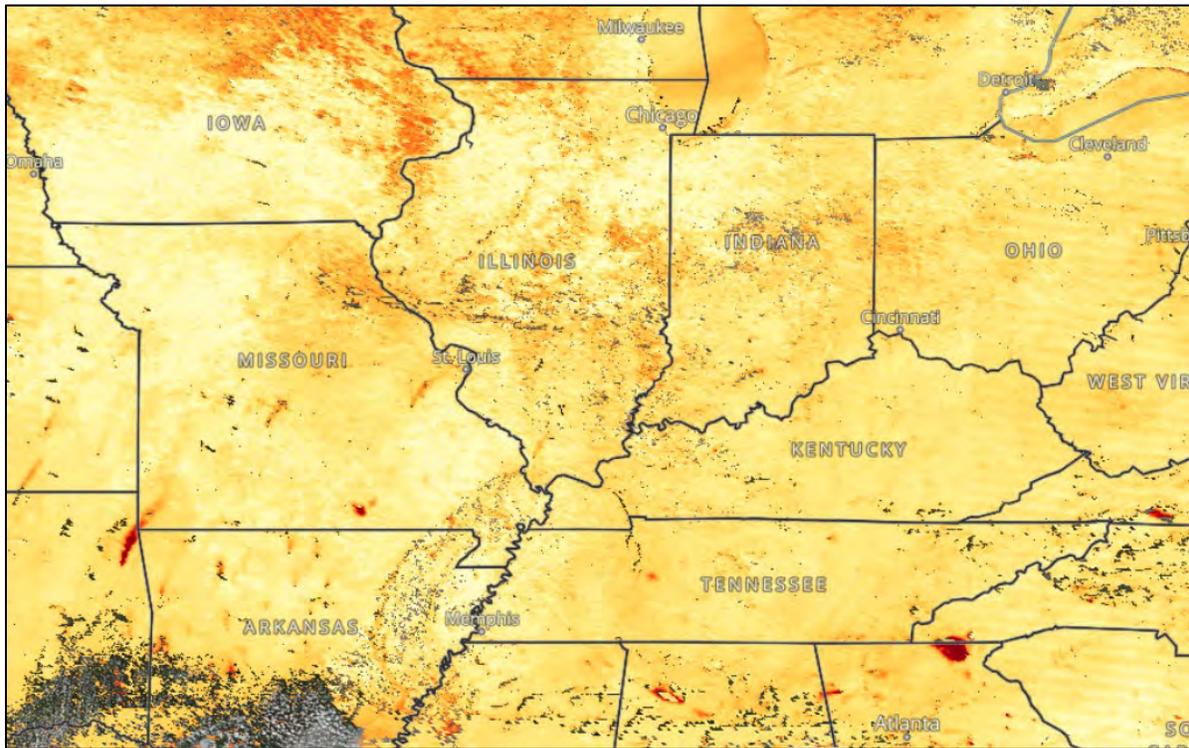
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Columbus - Rocky Ford Drive	180050008	4/12/2023	13.4	13.4
Dale	181470009	4/12/2023	13.9	13.9
Evansville - U of E	181630016	4/12/2023	19.6	15.5
Evansville - Buena Vista	181630021	4/12/2023	17.0	16.4

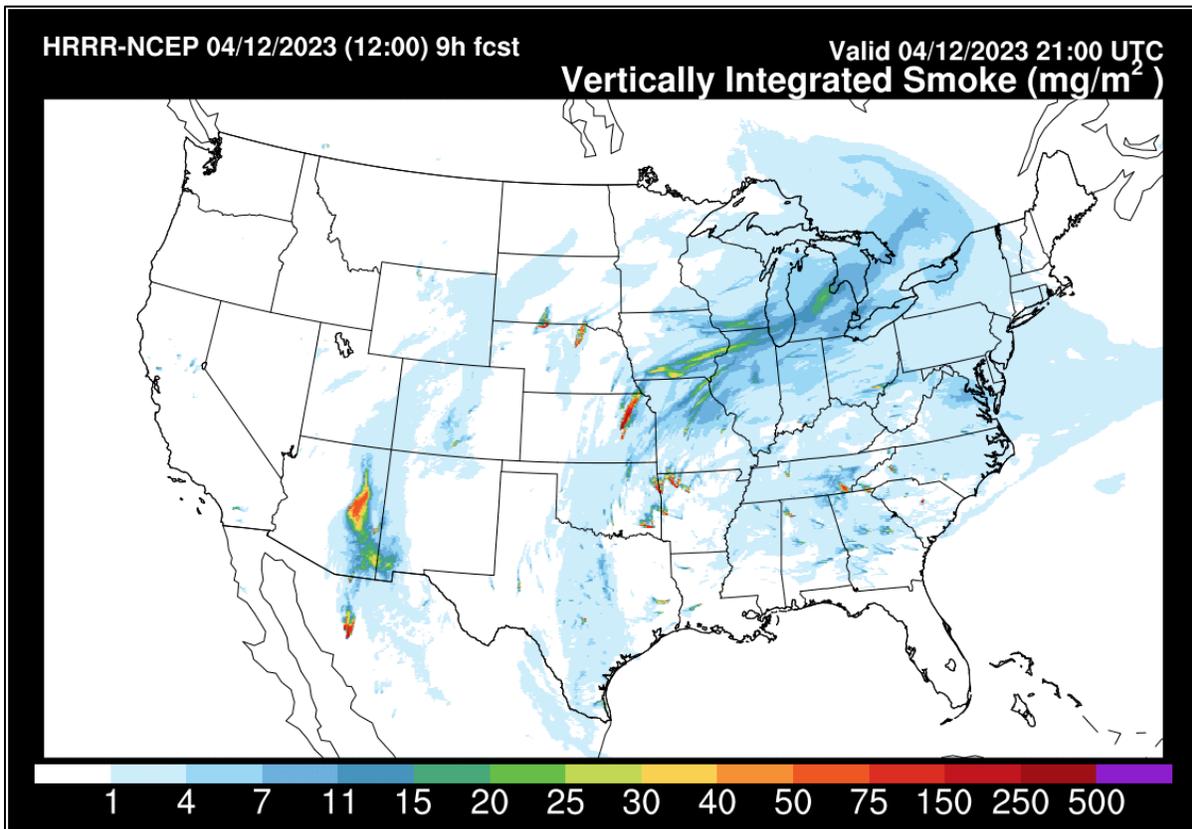
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – April 12, 2023



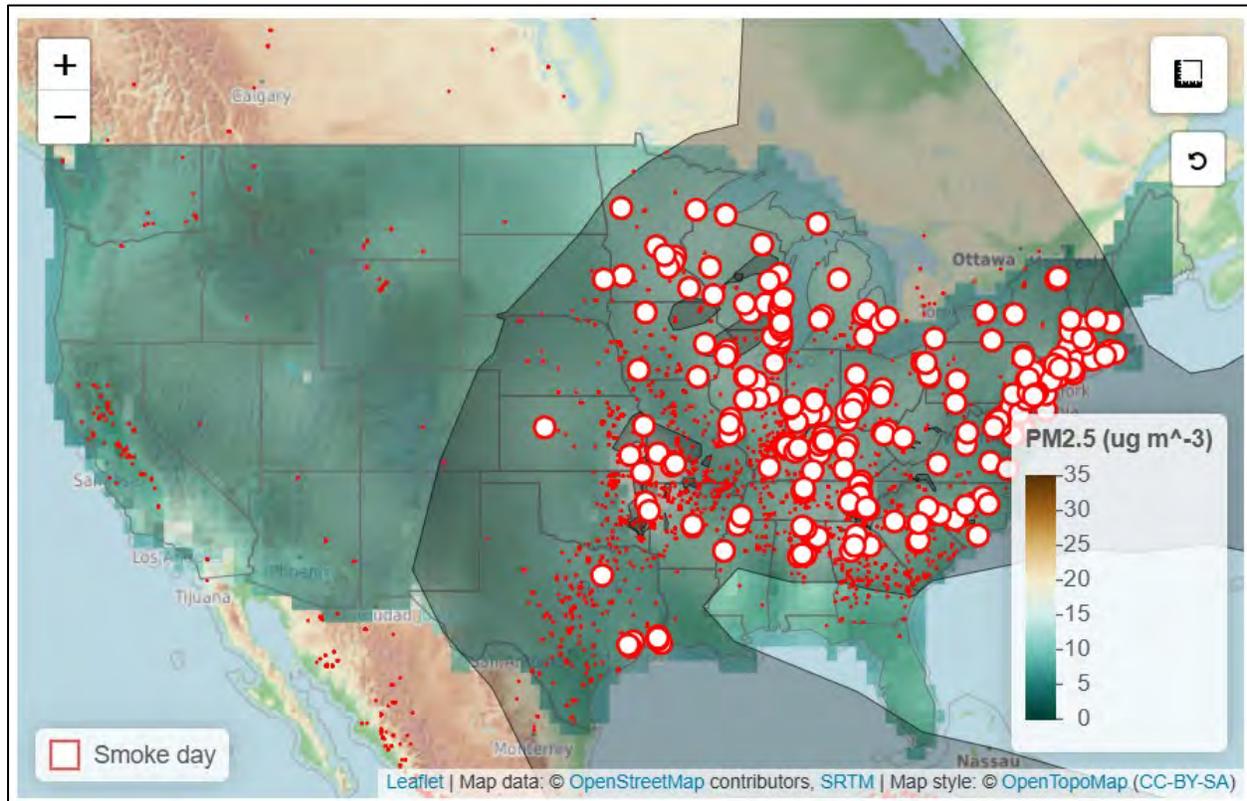
Satellite Imagery with MAIAC AOD – April 12, 2023



HRRR Smoke - Vertically Integrated Smoke – April 12, 2023



GAM PMO3 Smoke Output – April 12, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Wednesday, April 12, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z April 12, 2023

SMOKE:

Central and Eastern CONUS...

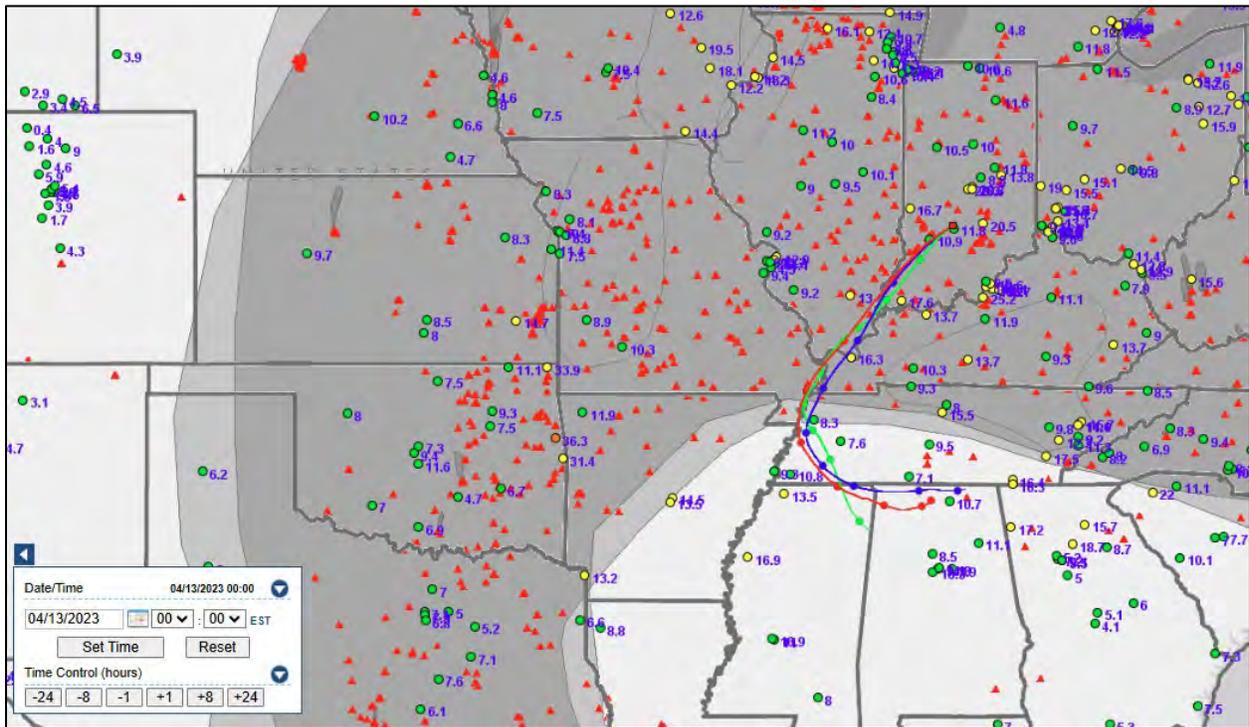
A large area of remnant smoke comprised of emissions from mainly agricultural burns across the central and southeastern CONUS over the past few days was seen blanketing a region that includes a vast majority of the eastern CONUS, central and eastern Ontario, far southwestern Quebec, and portions of the western North Atlantic. The smoke is mainly light, but some areas of slightly higher density were seen across western South Carolina, northern Georgia, the Mid-Mississippi Valley, the Central Plains, and the Upper Midwest, where some of the remnant smoke was thickest. There was also one fire in northeastern Oklahoma that did persist overnight and was observed emitting light to perhaps some moderate density smoke.

April 13, 2023

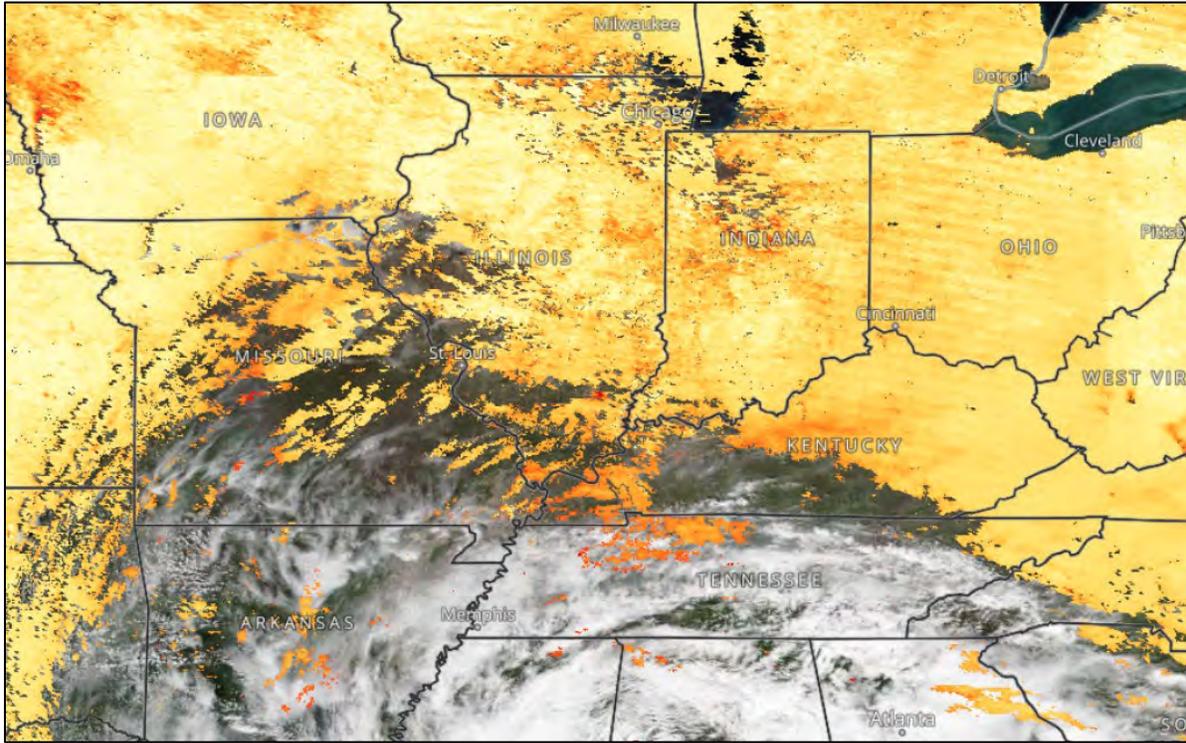
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Columbus - Rocky Ford Drive	180050008	4/13/2023	20.5	13.7
Jeffersonville - Bates-Bowyer Ave	180190010	4/13/2023	18.1	17.0
Indianapolis - Washington Park	180970078	4/13/2023	19.2	17.8
Indianapolis - W. 18th St.	180970081	4/13/2023	27.3	20.9
Indianapolis- I-70 E	180970087	4/13/2023	25.2	20.5

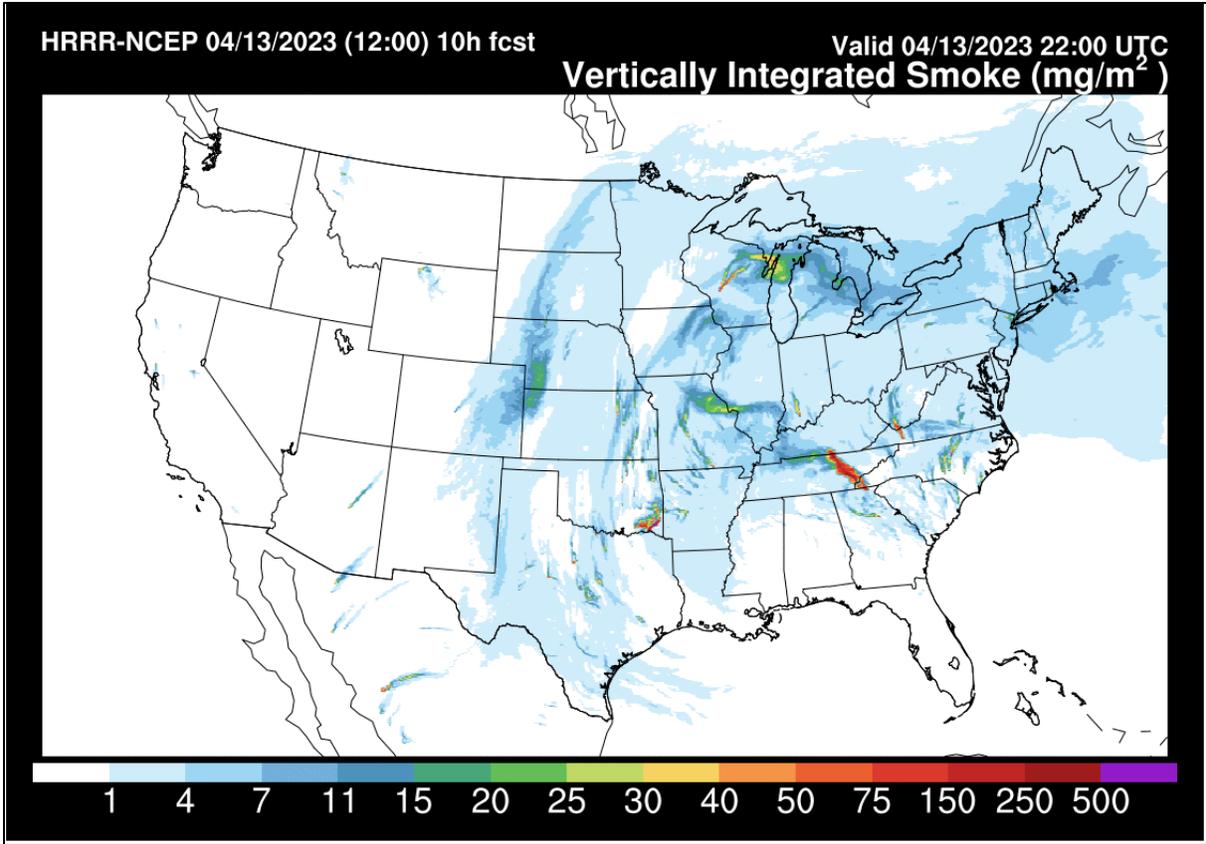
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – April 13, 2023



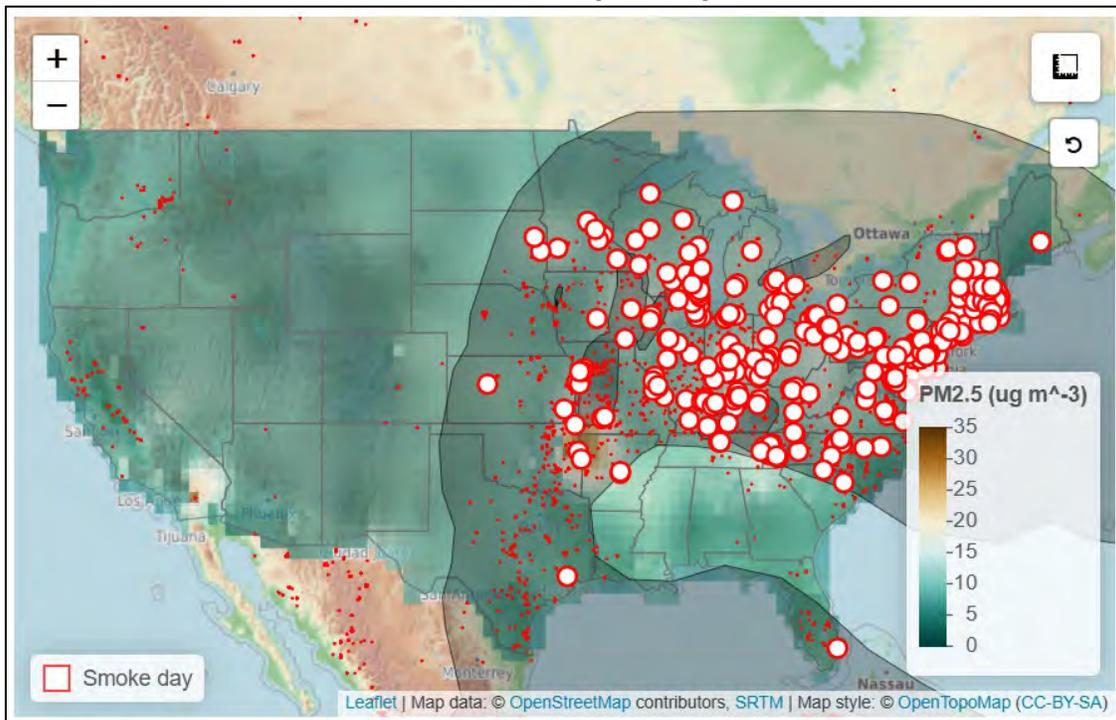
Satellite Imagery with MAIAC AOD – April 13, 2023



HRRR Smoke - Vertically Integrated Smoke – April 13, 2023



GAM PMO3 Smoke Output – April 13, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Thursday, April 13, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1550Z April 13, 2023

SMOKE:

Central and Eastern United States..

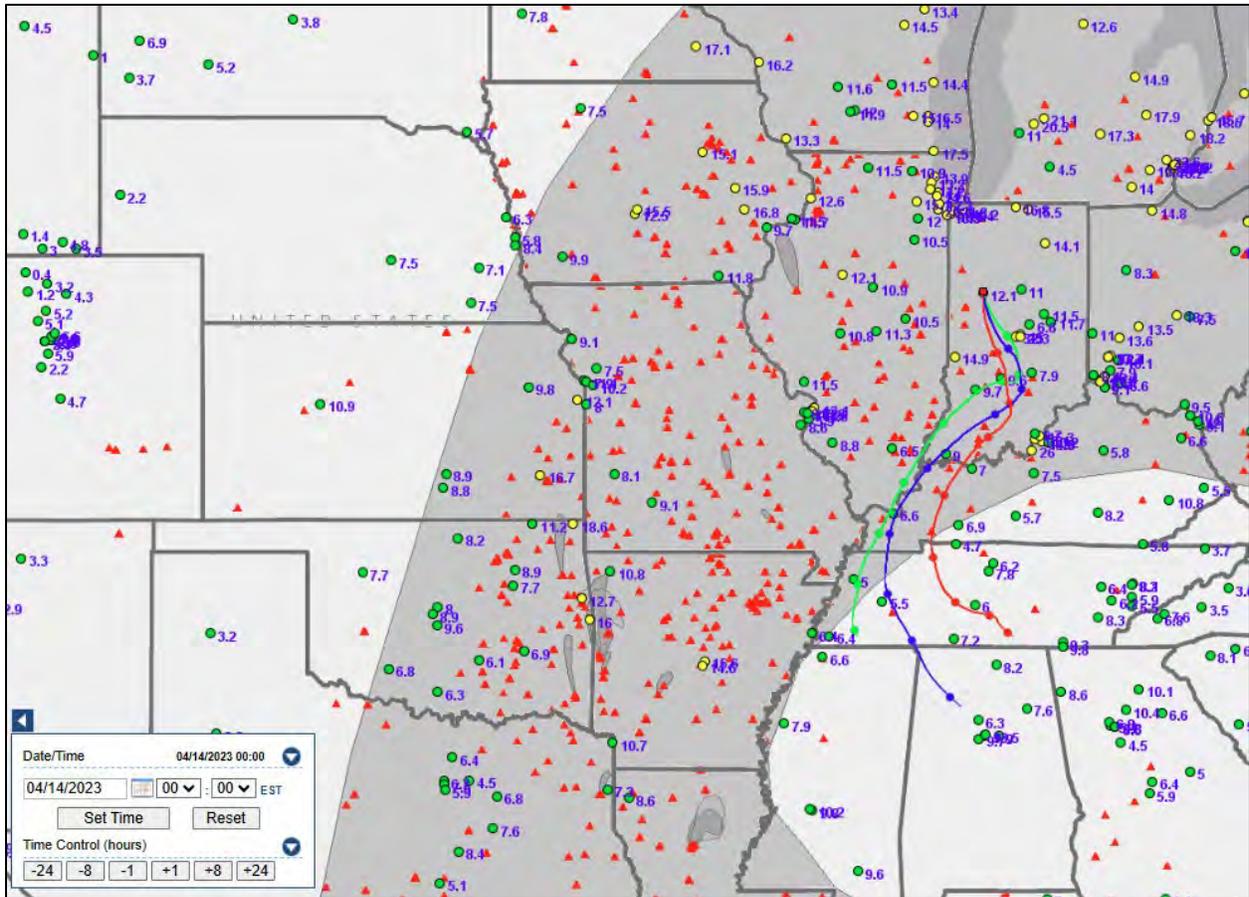
A large area of smoke comprised of emissions from mainly agricultural burns across the central and southeastern United States continued to be seen over a region that includes a vast majority of the eastern and central United States, southern Ontario and portions of the western North Atlantic. The smoke is mainly light, but some areas of medium density smoke were seen over Kentucky and Tennessee, Michigan and southern Ontario and also over Missouri and Illinois.

April 14, 2023

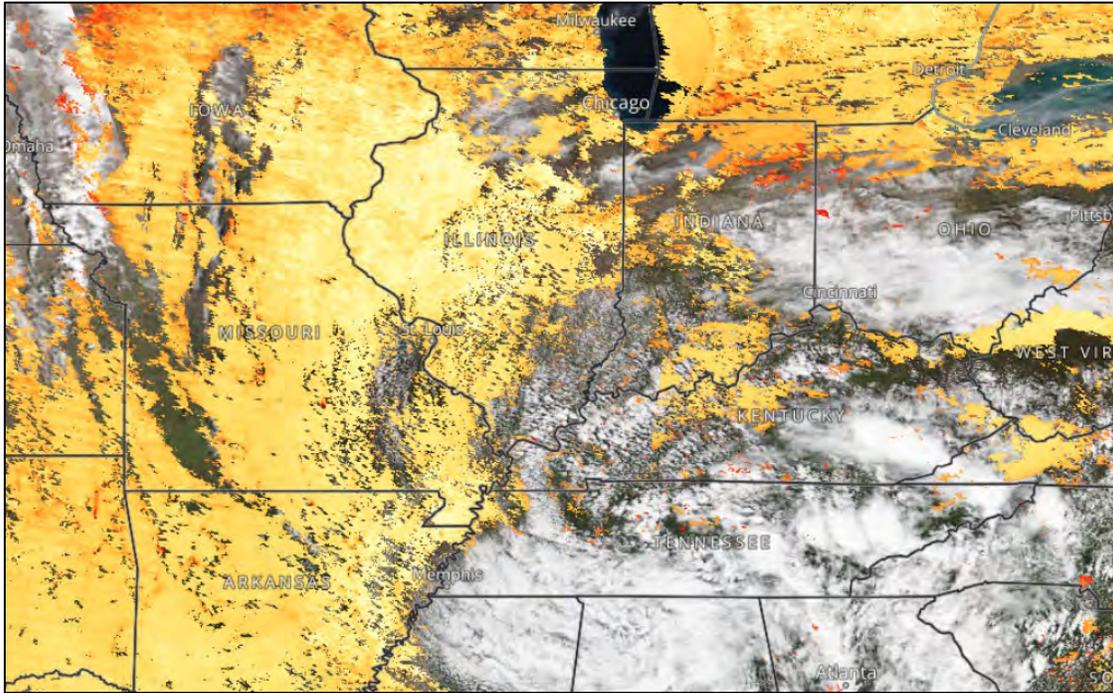
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
East Chicago - Marina	180890034	4/14/2023	20.2	18.0
Hammond-167th St	180890036	4/14/2023	17.3	16.3
Indianapolis - W. 18th St.	180970081	4/14/2023	31.3	20.9
Indianapolis - I-70 E	180970087	4/14/2023	21.5	20.5

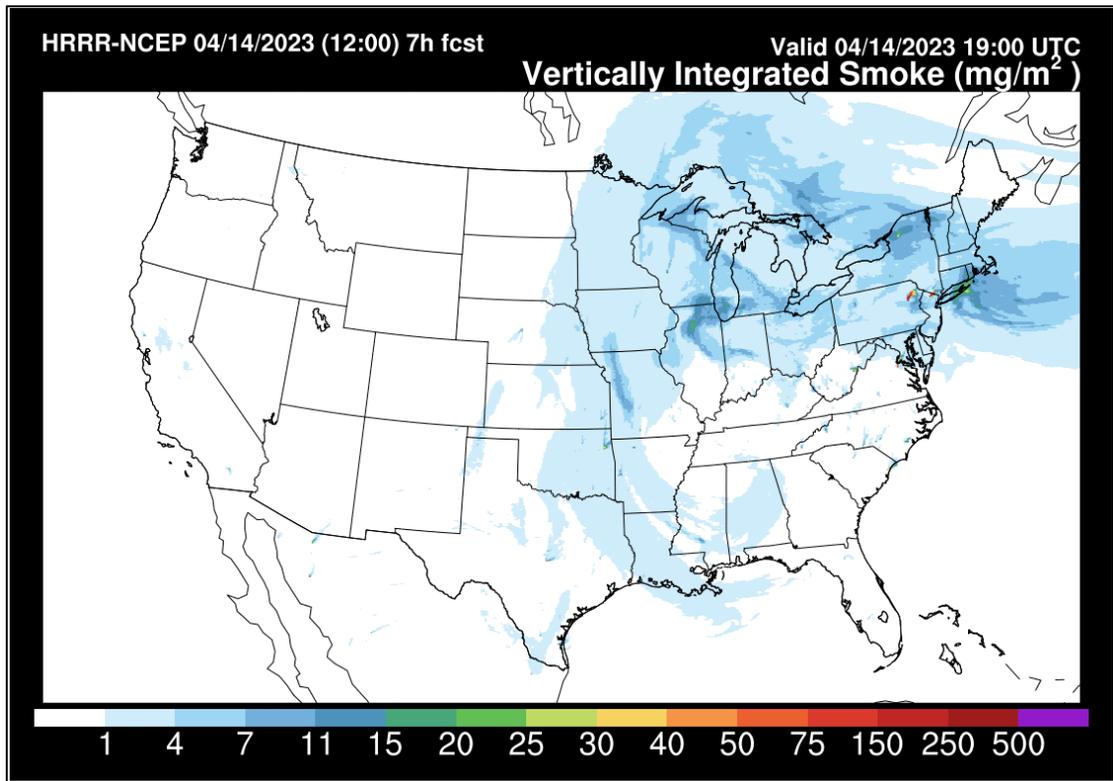
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – April 14, 2023



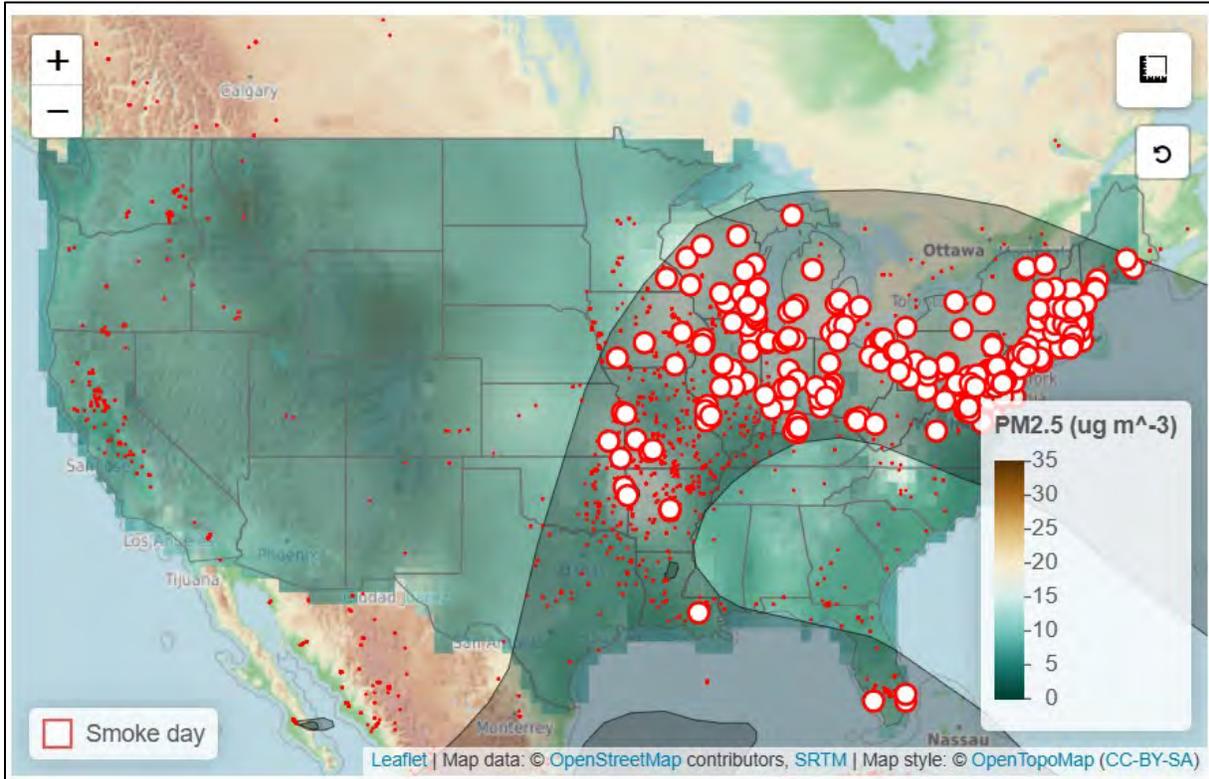
Satellite Imagery with MAIAC AOD – April 14, 2023



HRRR Smoke - Vertically Integrated Smoke – April 14, 2023



GAM PMO3 Smoke Output – April 14, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Friday, April 14, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1800Z April 14, 2023

SMOKE:

Central and Eastern United States...

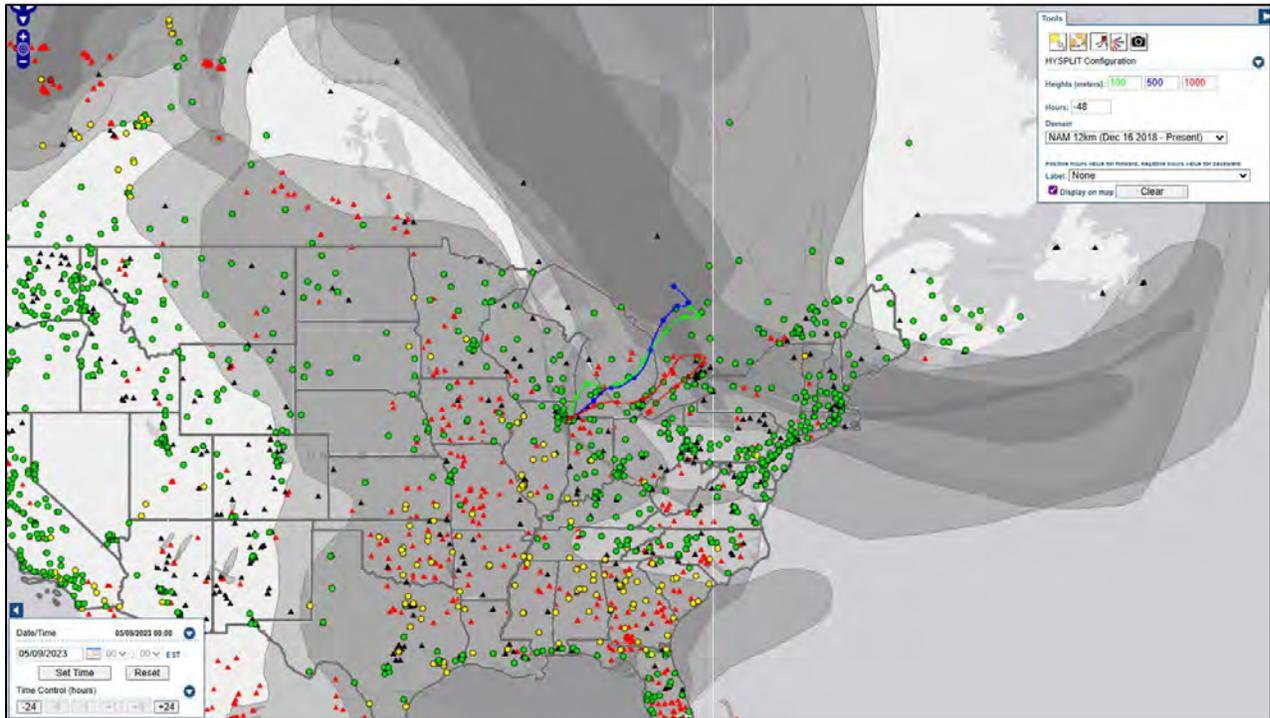
There was remnant smoke from yesterday's fire activity over the Central U.S. this morning but had dissipated by this early afternoon. There was cloud coverage over most of the eastern, southeastern region of the U.S. which made it difficult to visibly see smoke activity. There were a few fires in the NE corner, Pennsylvania, northern New Jersey, and southern New York that were emitting light density smoke plumes with the exception of the PA fire which emitted light to heavy smoke.

May 9, 2023

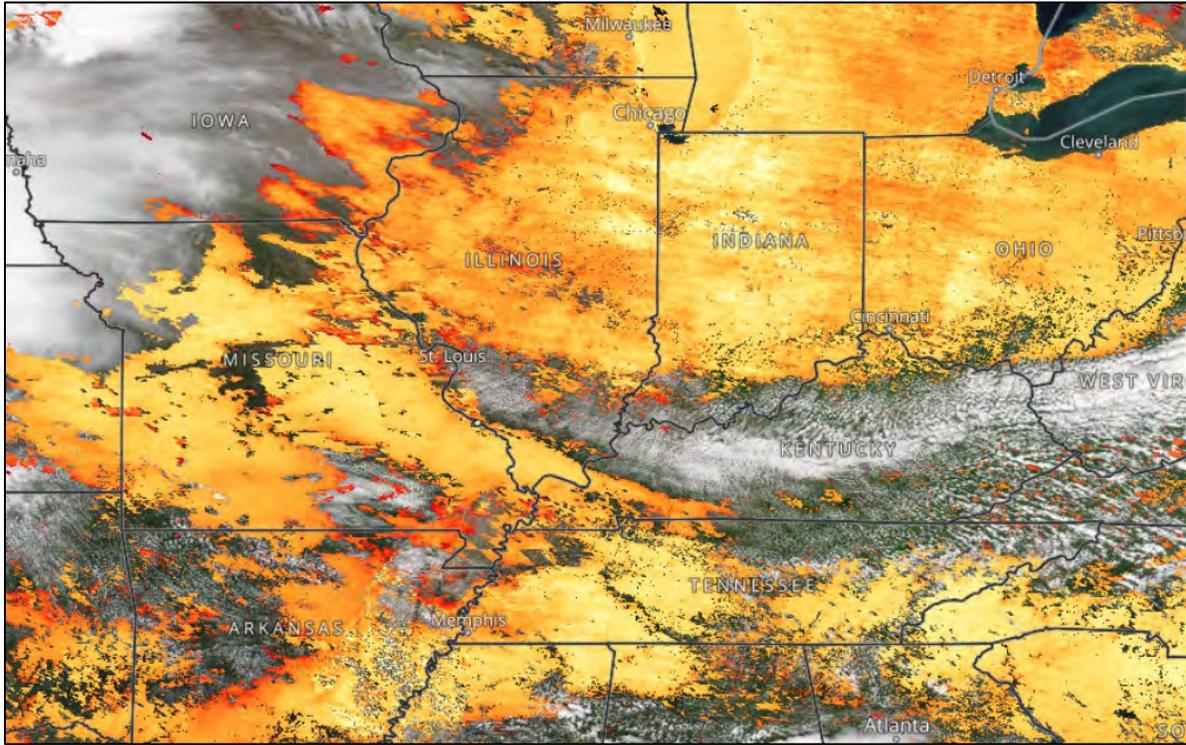
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Gary - Madison St	180890031	5/9/2023	17.0	16.0

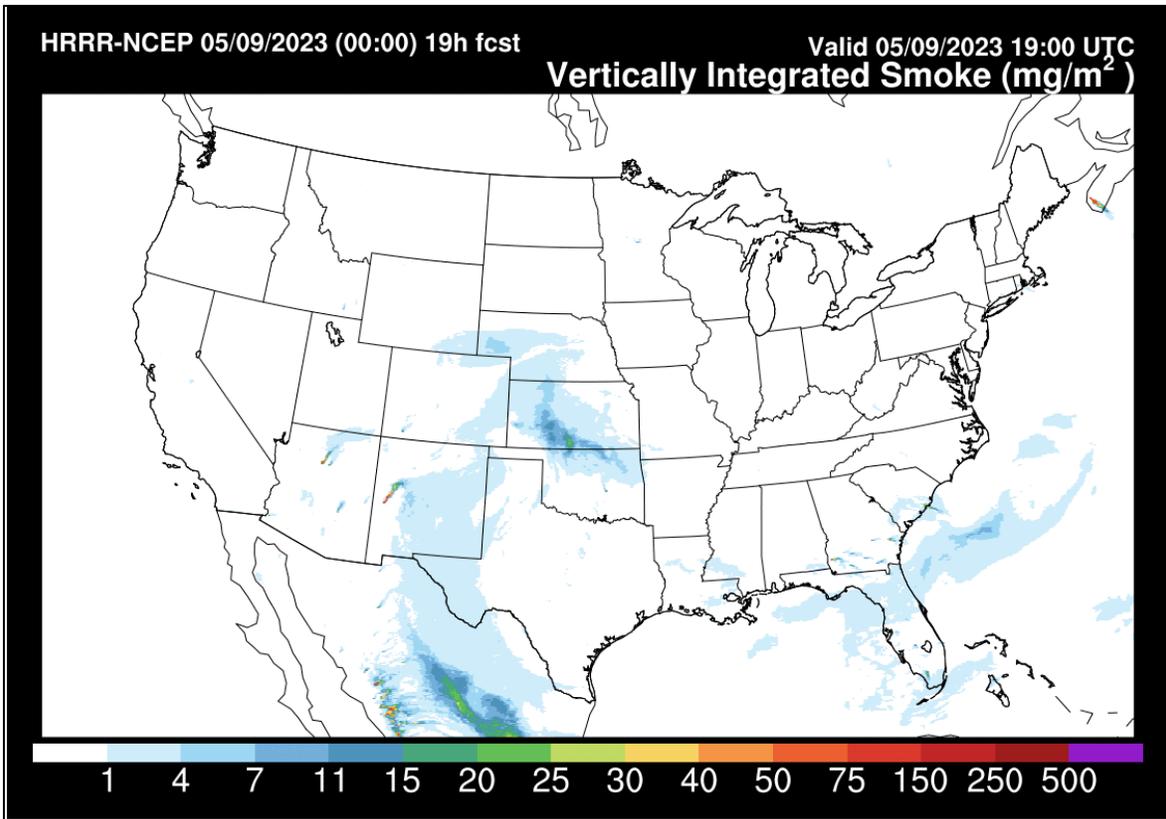
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 9, 2023



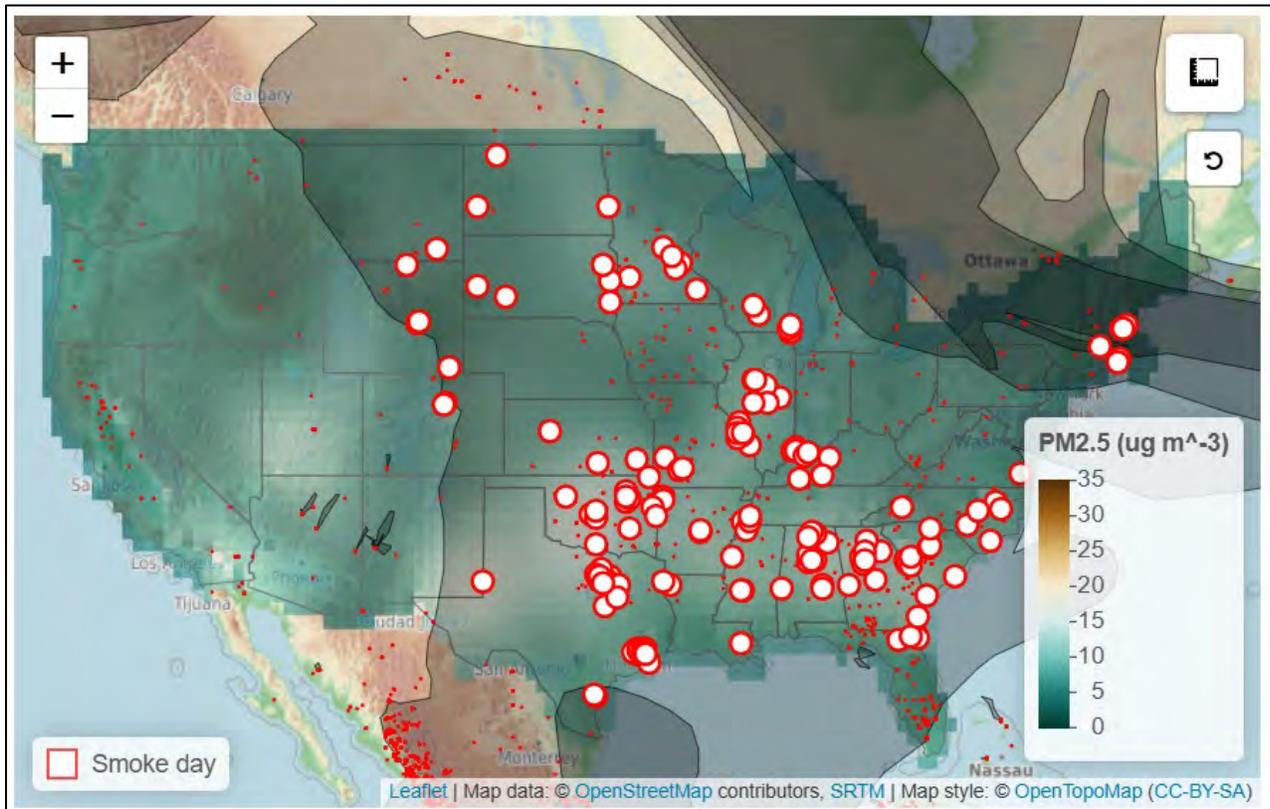
Satellite Imagery with MAIAC AOD – May 9, 2023



HRRR Smoke - Vertically Integrated Smoke – May 9, 2023



GAM PMO3 Smoke Output – May 9, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Tuesday, May 9, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1630Z May 9, 2023

SMOKE :

Canada/Great Lakes Region/Northeastern U.S./Atlantic Ocean off the Northeast U.S. Coast...

A very large area of smoke of varying density linked primarily to recent significant wildfire activity in western Canada was seen this morning covering much of Canada as well as most of the Great Lakes region and the northeastern U.S. and extending well offshore of the northeastern U.S. over the Atlantic Ocean south of the Canadian Maritimes. Very thick smoke was present extending from northern Manitoba to the east and southeast over much of Ontario. From there the smoke area narrowed but was still concentrated in a band over far southwestern Quebec and the northeastern U.S. before passing off the coast. Another area of thicker smoke was visible over eastern British Columbia, northern Alberta, northwestern Saskatchewan, and most of the Northwest Territories and western Nunavut. It is also possible that smoke from the intense burning season in Mexico and Central America may be mixing in with the smoke from the Canadian fires especially around the Great Lakes region.

SMOKE/AEROSOL :

Central U.S./Southeastern U.S./Atlantic Ocean off the Southeast U.S. Coast/Gulf of Mexico/Mexico/Northwestern Central America/Pacific Ocean Well to the South and Southwest of Northwestern Central America and Southern Mexico...

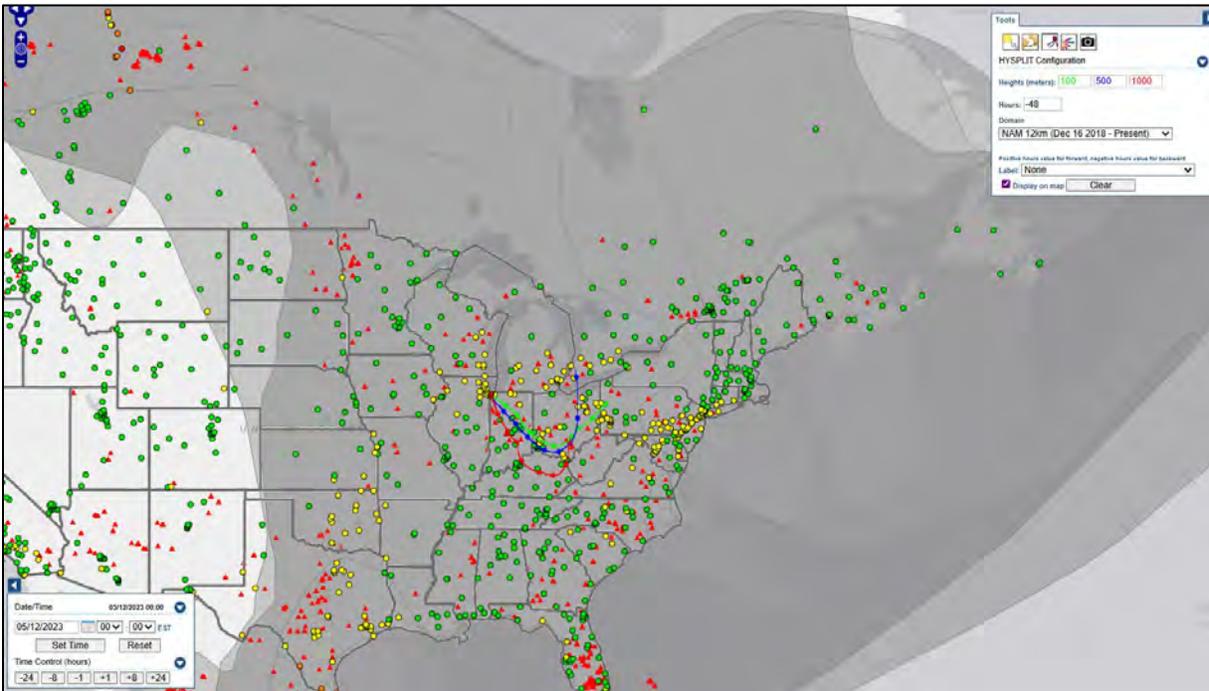
The huge mass of mainly thin to moderate density smoke from the ongoing significant seasonal fire activity along with a few wildfires occurring in Mexico and Central America was seen this morning over a good part of Mexico, northwestern Central America, the Pacific Ocean well south and southwest of the southern coast of Mexico and Central America, the Gulf of Mexico, the southeastern U.S., and all of the central U.S.

May 12, 2023

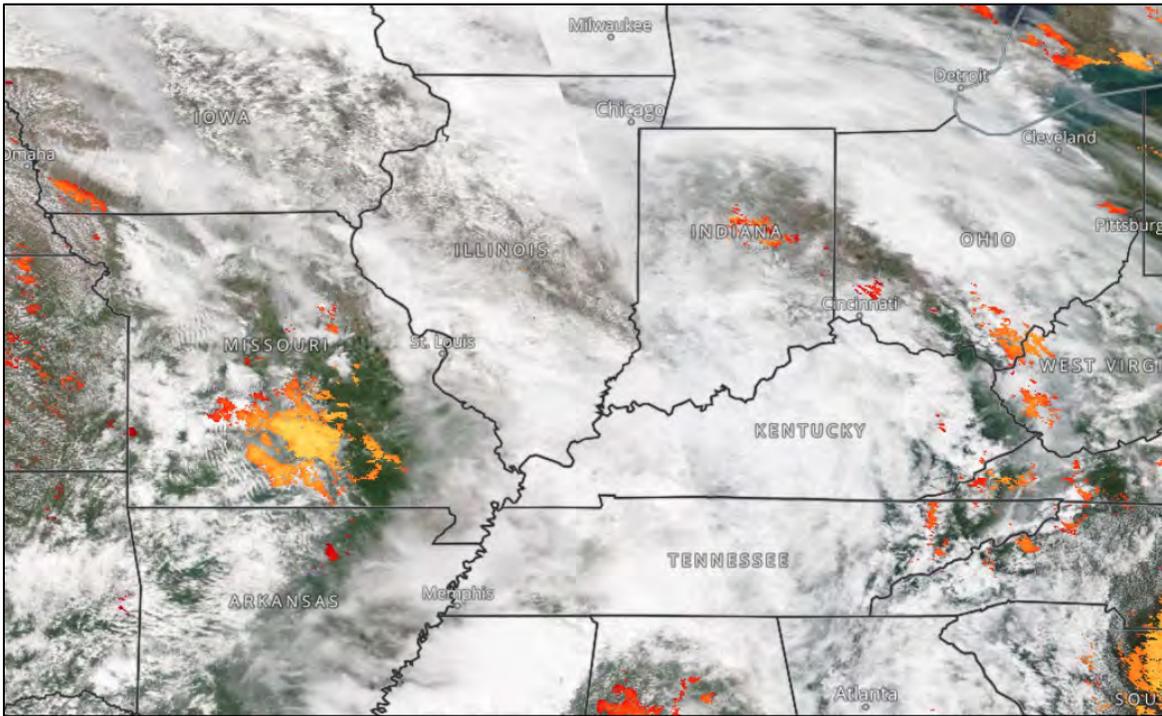
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
East Chicago – Franklin	18089000	5/12/2023	19.5	16.1
Gary - Madison St	18089003	5/12/2023	17.5	16.0
Hammond-167th St	18089003	5/12/2023	16.3	16.3

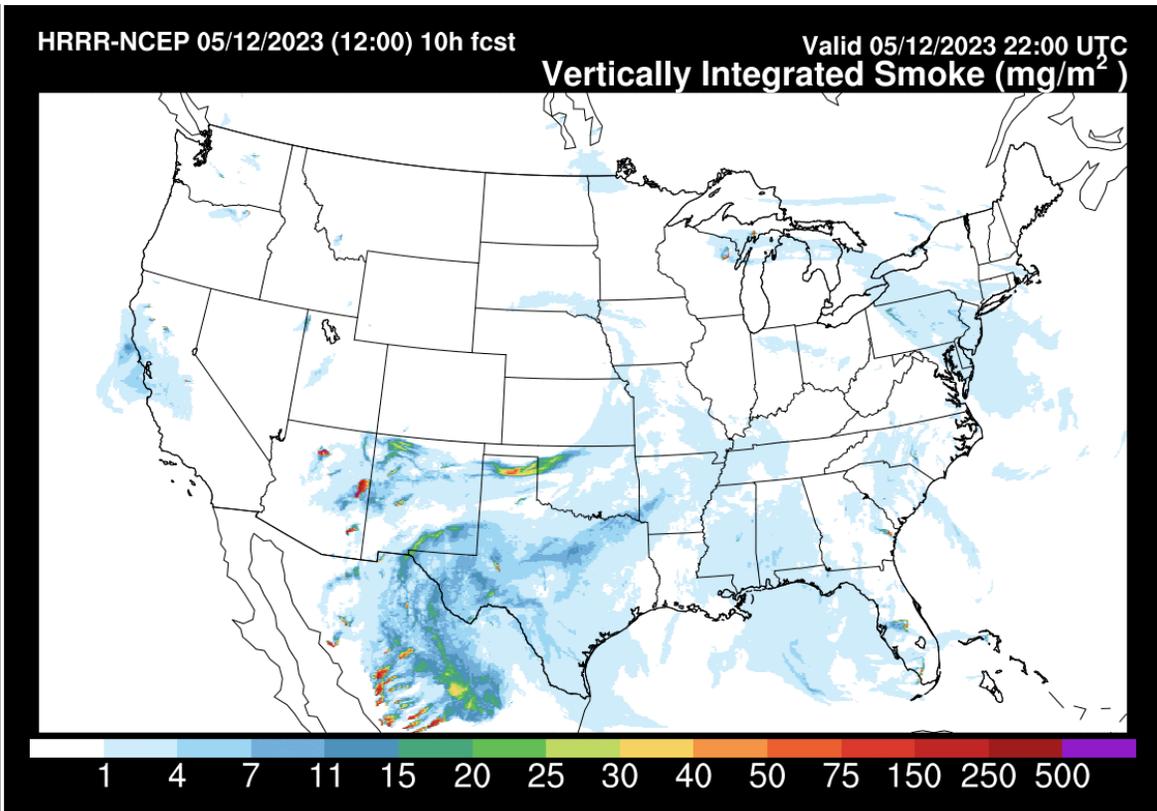
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 12, 2023

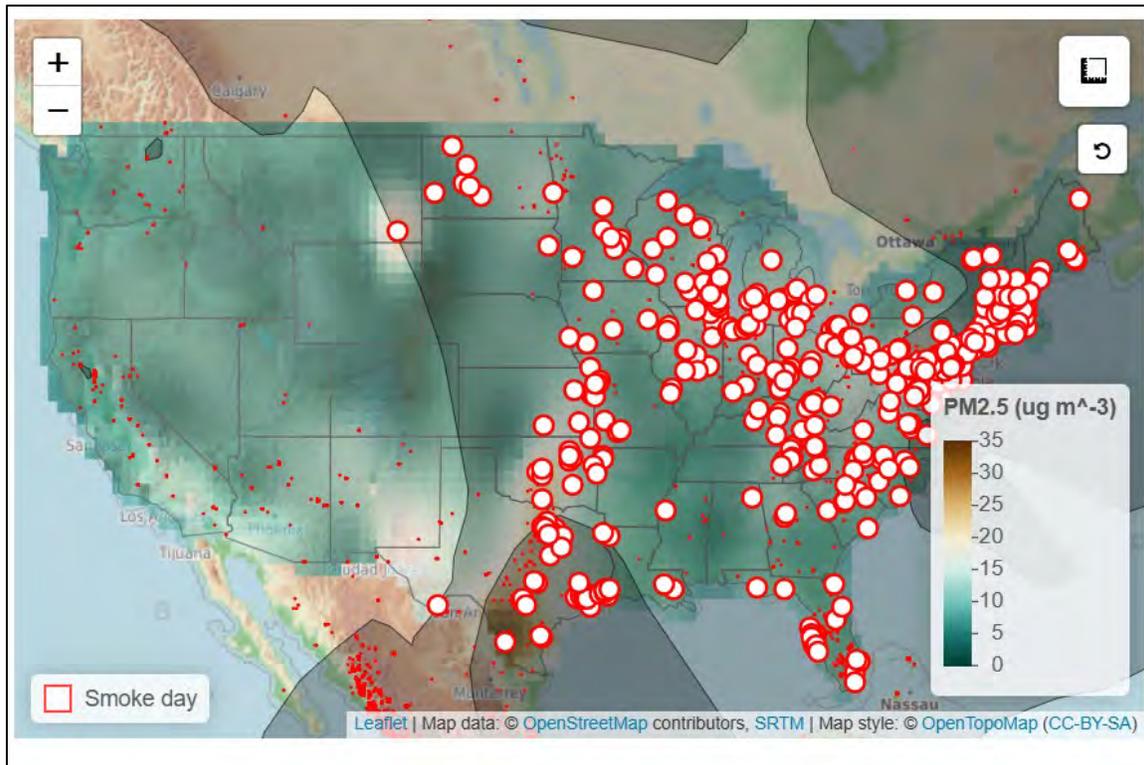


Satellite Imagery with MAIAC AOD – May 12, 2023



HRRR Smoke - Vertically Integrated Smoke – May 12, 2023



GAM PMO3 Smoke Output – May 12, 2023**NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts****Friday, May 12, 2023****DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1550Z May 12, 2023****SMOKE:**

Canada, Central and Eastern United States and the Atlantic Ocean off the Northeast United States Coast...

A very large area of smoke of varying density from recent wildfire activity in western Canada continued to be seen covering much of Canada as well the Northeastern United States and extending well offshore of the northeastern United State and over the Atlantic Ocean south of southeastern Canada. Moderate to localized high density smoke was seen extending from northern Manitoba and northern Alberta north into the Northwest Territories. An area of moderate to high density smoke was also seen off the southeastern Canadian coast and extending northeast into the North Atlantic Ocean. It is also possible that smoke from fires in Mexico and Central America may be mixing in with the smoke from the Canadian fires especially around Central and Southern United States.

SMOKE/AEROSOL:

Atlantic Ocean off the Southeast United States Coast, Eastern United States, Central United States, Gulf of Mexico, Western Caribbean Sea, Mexico, Northwestern Central America and the Pacific Ocean south and southwest of Northwestern Central America and Southern Mexico...

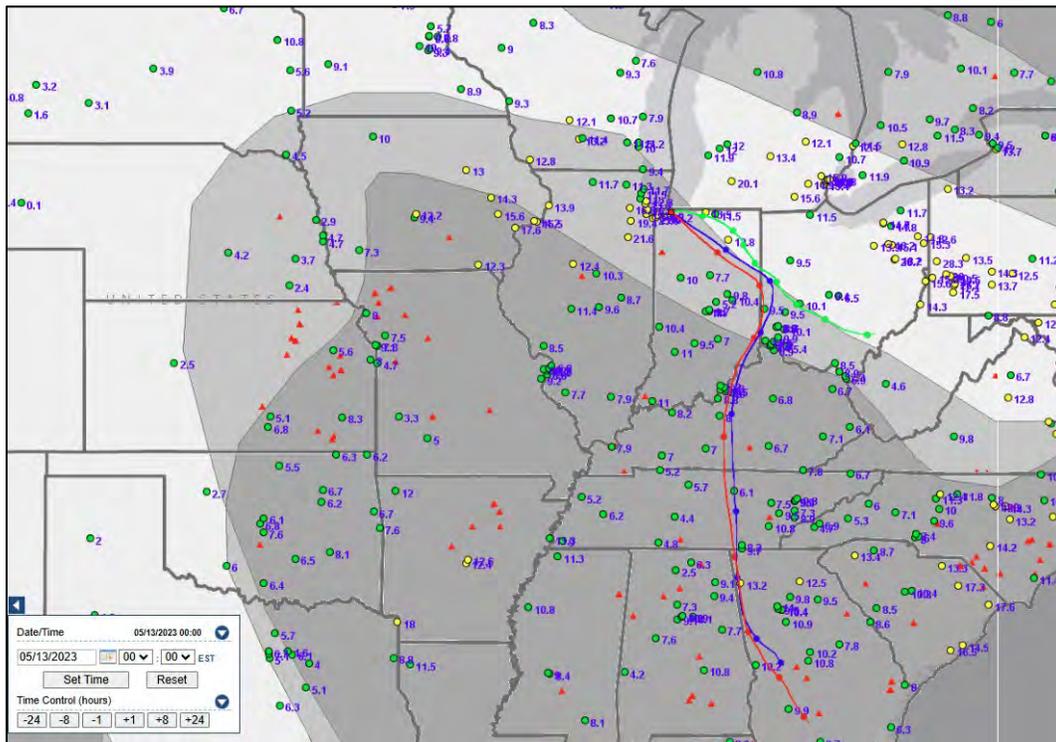
The huge area of mainly thin to moderate density smoke from the ongoing seasonal fire activity occurring in Mexico and Central America continued to be visible from the Atlantic Ocean off the Southeast United States Coast, extending west to the Eastern and Central United States, Gulf of Mexico, western Caribbean Sea, Mexico, northwestern Central America and the Pacific Ocean south and southwest of the southwestern coast of northwestern Central America and southwestern Mexico. The highest density smoke within this region was an area of moderate density smoke that was seen extending from northwestern Central America and southern Mexico north through the western Gulf of Mexico and Mexico coastline to southern Texas. While most of what is seen in satellite imagery is believed to be smoke, some aerosols from industrial activity mainly in Mexico and Central America may be mixing in.

May 13, 2023

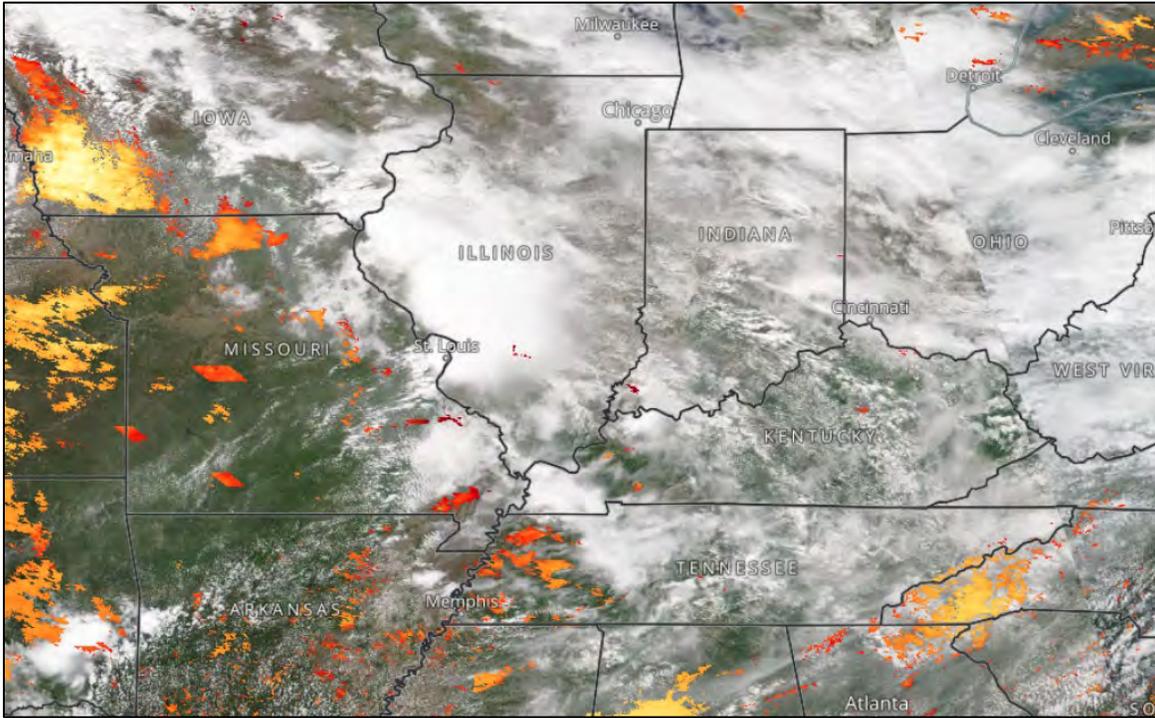
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Hammond-167th St	180890036	5/13/2023	20.0	16.3
Ogden Dunes	181270024	5/13/2023	18.5	15.3

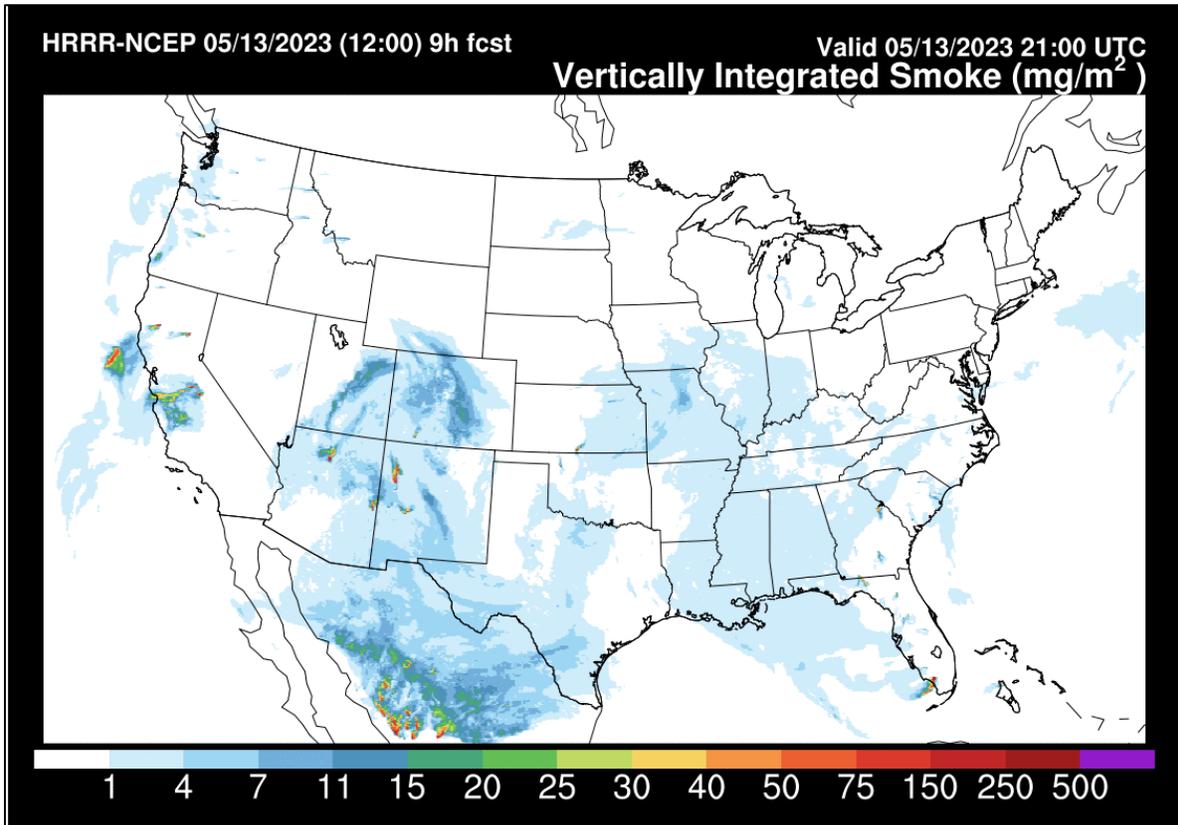
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 13, 2023



Satellite Imagery with MAIAC AOD – May 13, 2023



HRRR Smoke - Vertically Integrated Smoke – May 13, 2023

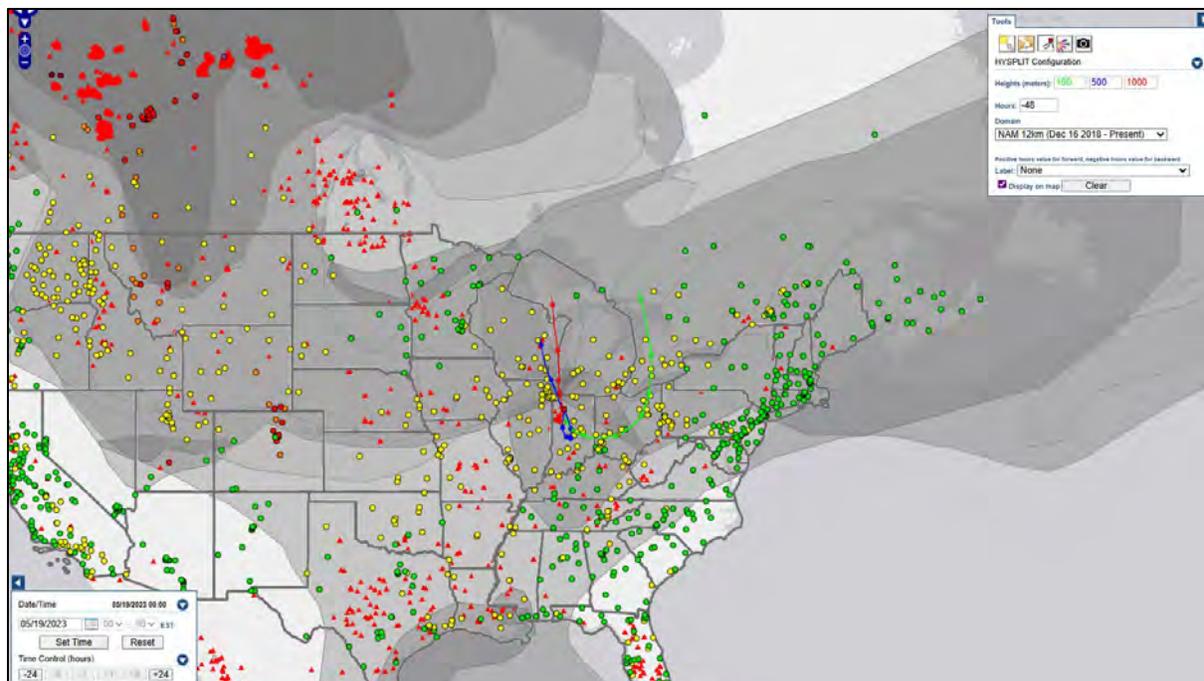


May 19, 2023

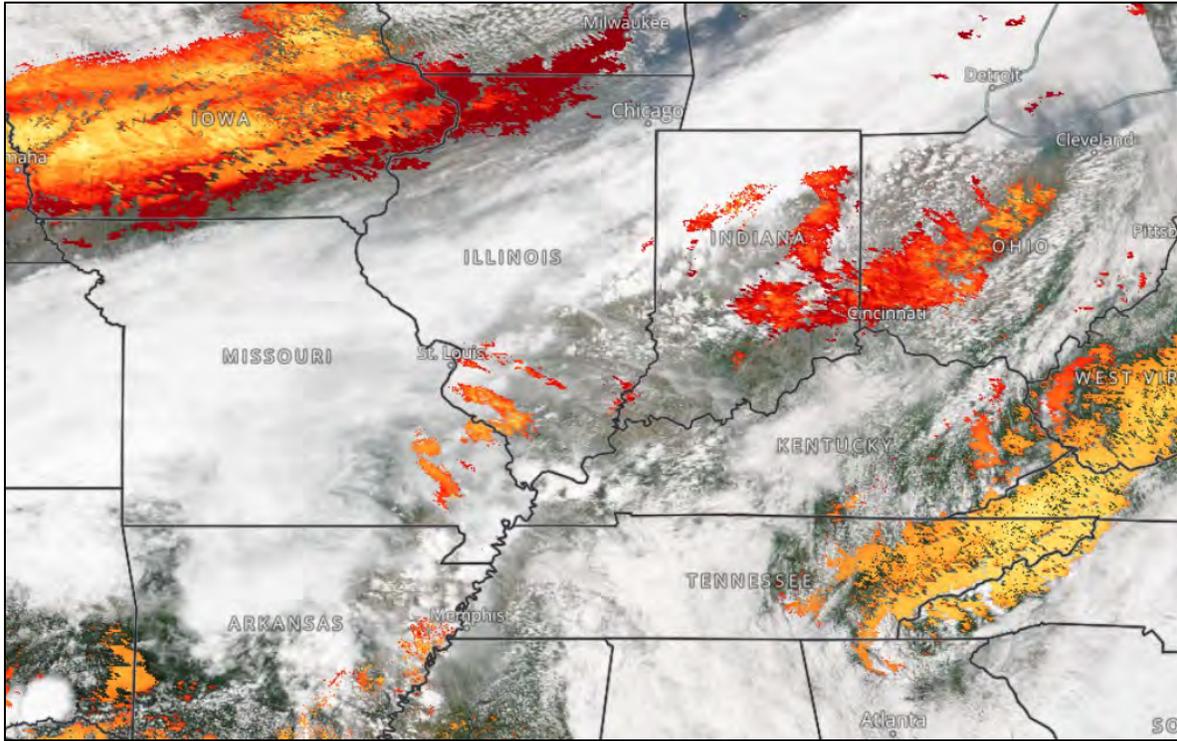
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Elkhart - Prairie St	180390008	5/19/2023	18.6	16.3
Kokomo - E. Vaile Ave	180670004	5/19/2023	15.4	14.7
East Chicago - Marina	180890034	5/19/2023	22.2	18.0
Hammond-167th St	180890036	5/19/2023	19.7	16.3
Indianapolis - Washington Park	180970078	5/19/2023	17.8	17.8
Indianapolis - W. 18th St.	180970081	5/19/2023	30.1	20.9
Indianapolis - I-70 E	180970087	5/19/2023	20.9	20.5
Ogden Dunes	181270024	5/19/2023	19.6	15.3
South Bend - Shields Dr.	181410015	5/19/2023	19.5	16.9
Lafayette - Greenbush St	181570008	5/19/2023	18.4	15.1
Larwill	181830003	5/19/2023	16.2	15.0

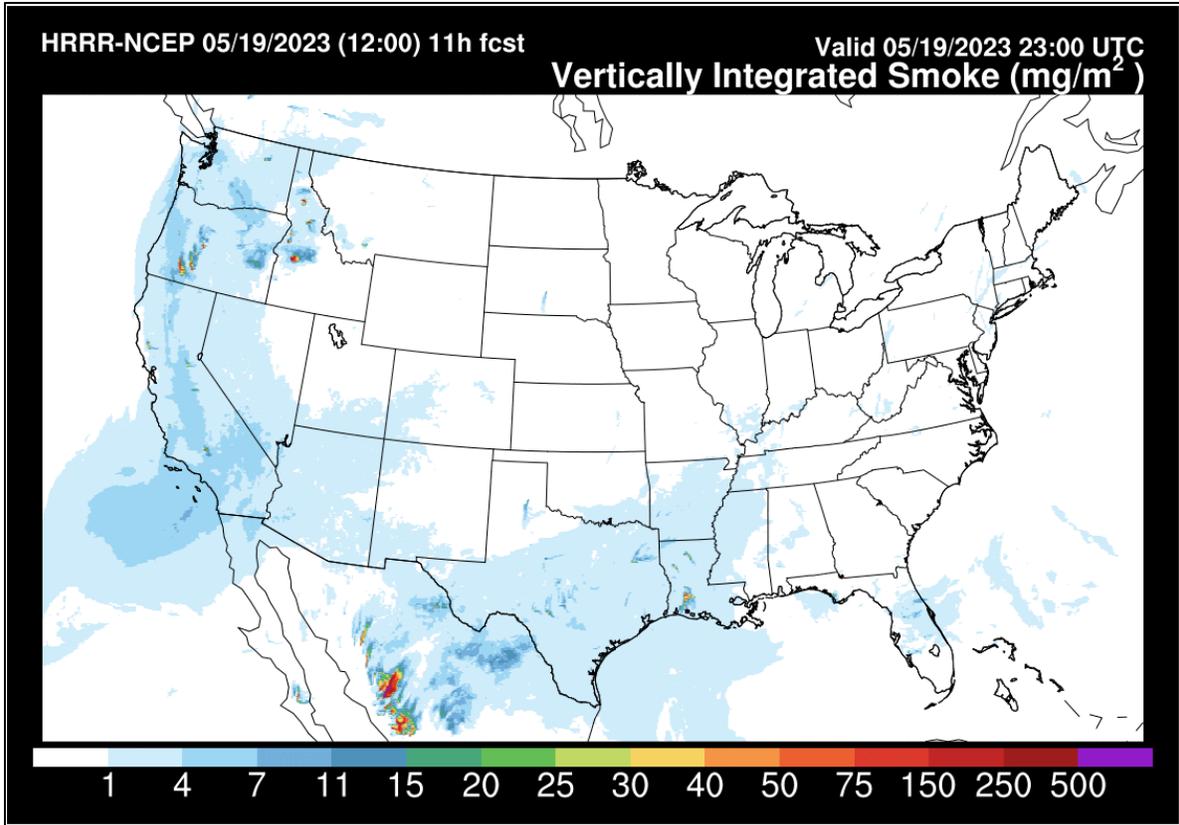
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 19, 2023



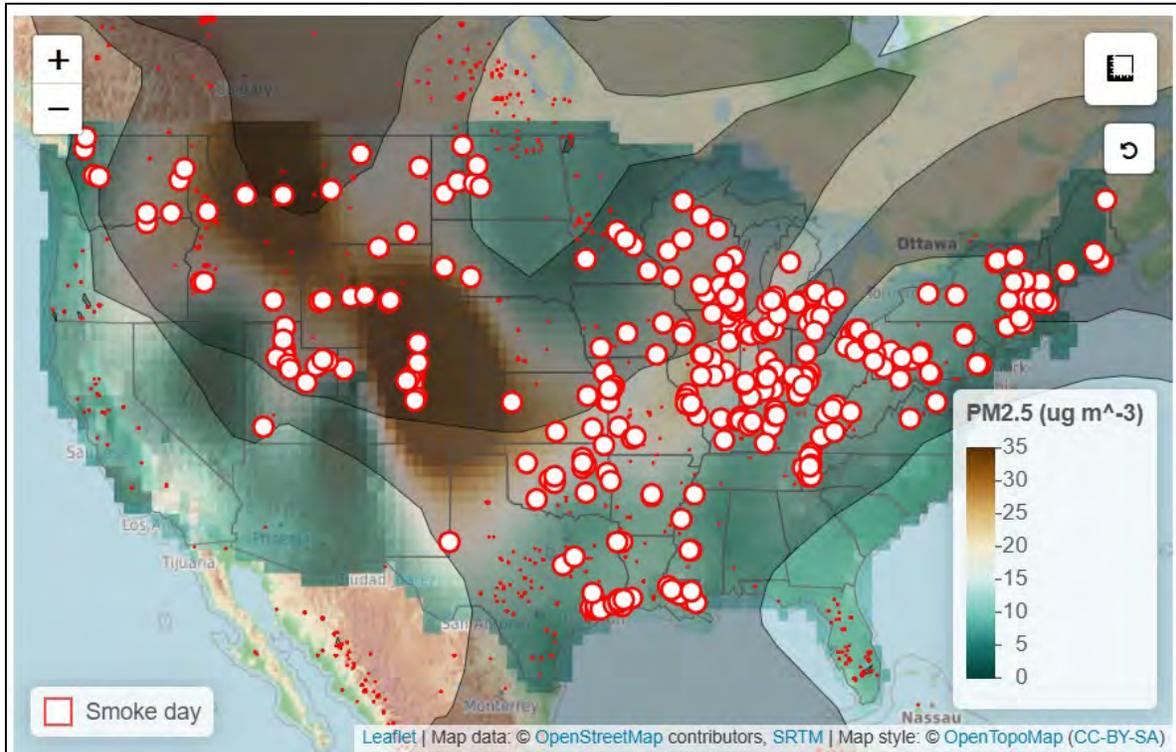
Satellite Imagery with MAIAC AOD – May 19, 2023



HRRR Smoke - Vertically Integrated Smoke – May 19, 2023



GAM PMO3 Smoke Output – May 19, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts**Friday, May 19, 2023**DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1630Z May 19, 2023

SMOKE:

Northern Half of U.S./Canada...

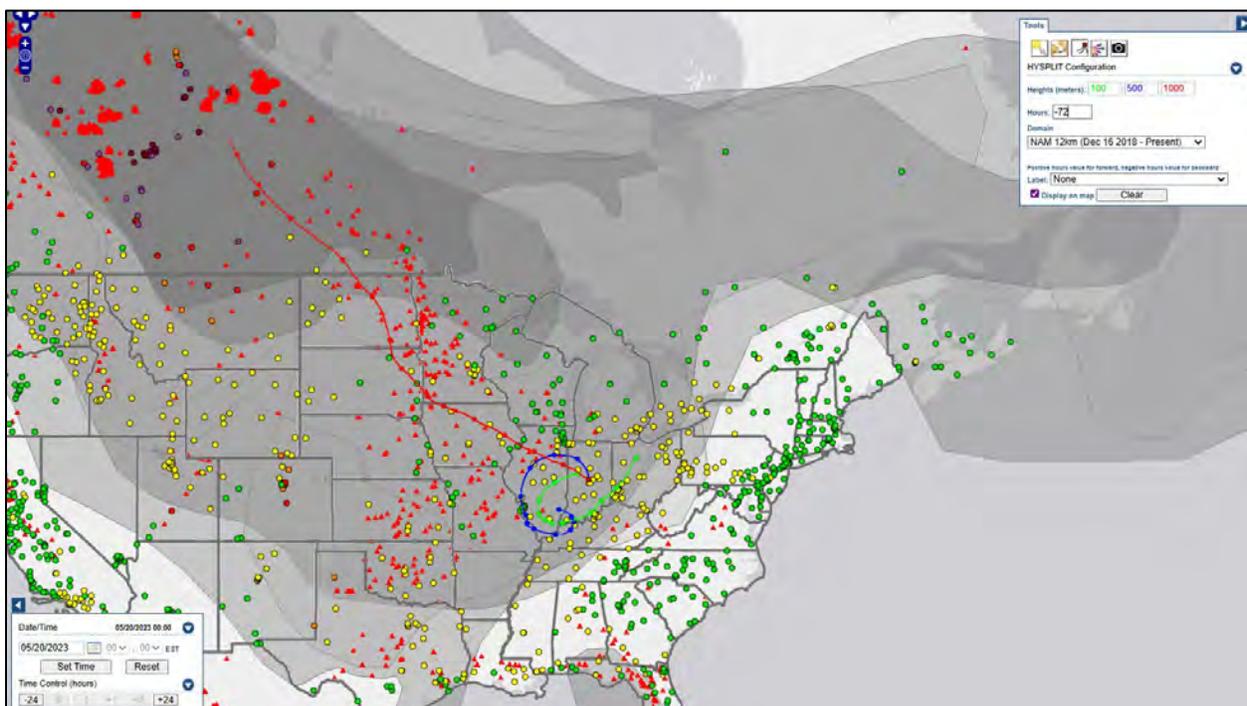
Many large wildfires across northeastern British Columbia, central and northern Alberta, and northern Saskatchewan continue to spread a huge plume of smoke across much of Canada and the northern half of the U.S. Thin density smoke was detected over southeastern Yukon, southern Nunavut/Northwest Territories, eastern British Columbia, all of Alberta/Saskatchewan, northern Manitoba, and far northwestern Ontario. Just about all the northern half of the U.S was covered with thin density smoke. Moderate density smoke was found over the southern Northwest Territories, northeastern British Columbia, all of Alberta, and northern Saskatchewan/Manitoba. In the U.S, moderate density smoke was found over the Northern Rockies, parts of the Northern Plains, the Upper Mississippi Valley, the Great Lakes, southern Quebec, and northern New England. A large plume of heavy density smoke was detected over far northern British Columbia, most of Alberta, northern Saskatchewan, and northwestern Manitoba.

May 20, 2023

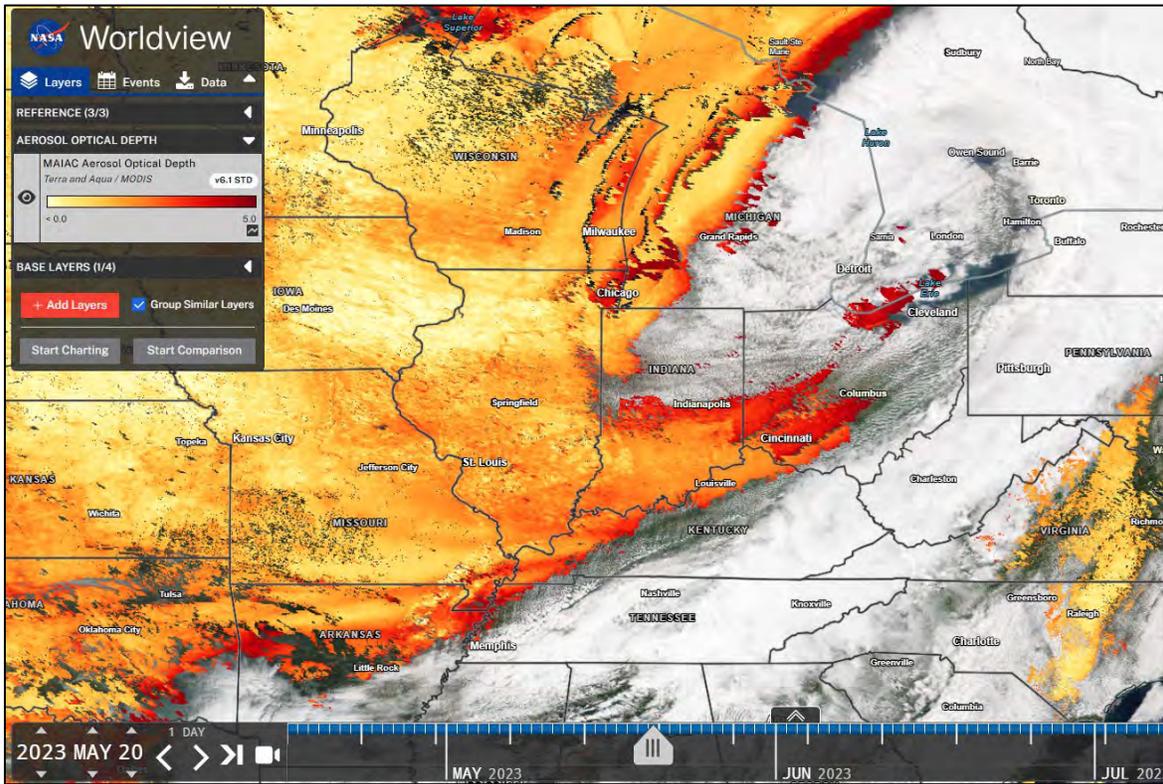
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Columbus - Rocky Ford Drive	180050008	5/20/2023	17.7	13.7
Jeffersonville - Bates-Bowyer Ave	180190010	5/20/2023	25.1	17.0
Mechanicsburg	180650003	5/20/2023	18.7	15.5
Anderson - Eastside Elem	180950011	5/20/2023	18.1	15.4
Indianapolis - Washington Park	180970078	5/20/2023	19.3	17.8
Indianapolis - W. 18th St.	180970081	5/20/2023	22.2	20.9
Indianapolis- I-70 E	180970087	5/20/2023	20.5	20.5
Bloomington - Binford	181050003	5/20/2023	20.4	13.9
Evansville - Buena Vista	181630021	5/20/2023	21.2	15.1

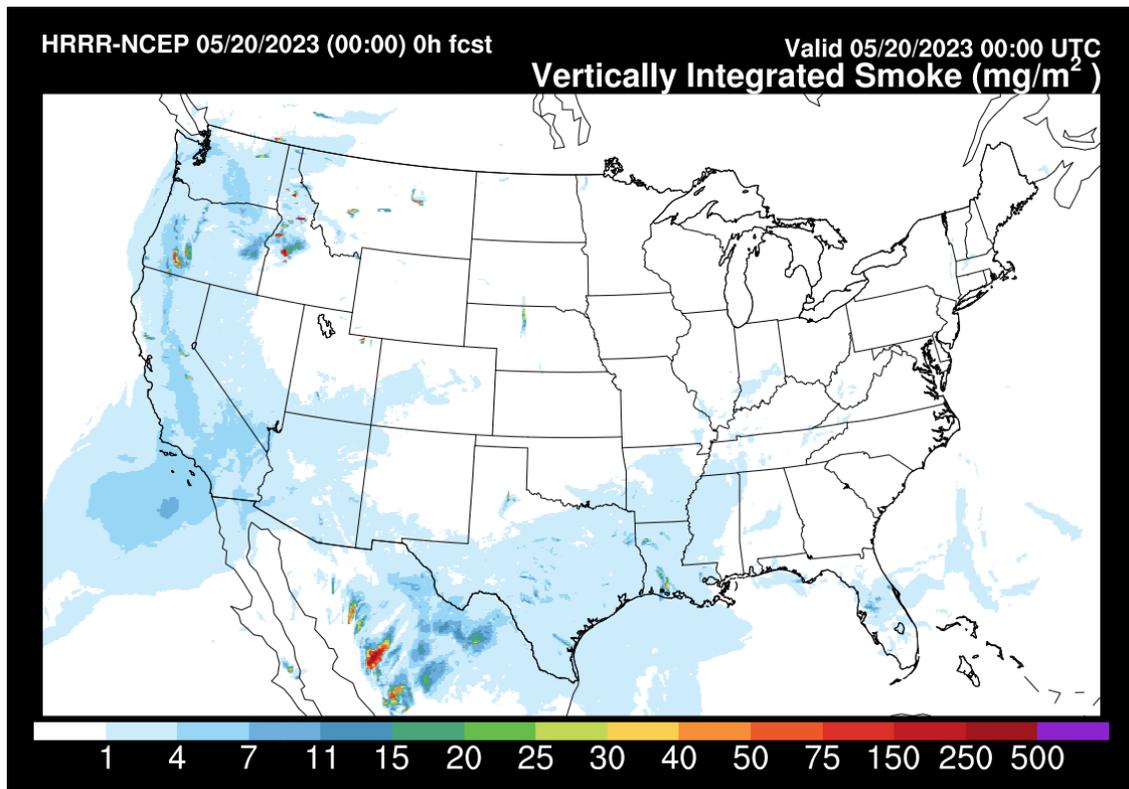
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 20, 2023



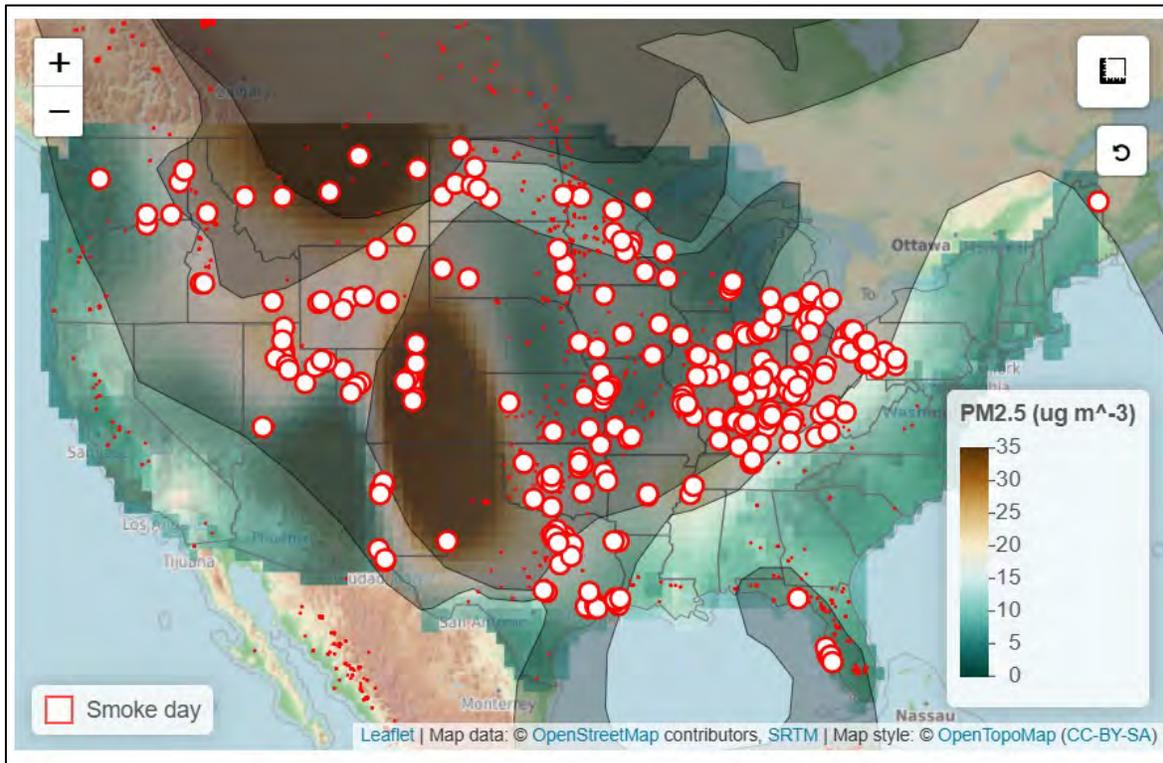
Satellite Imagery with MAIAC AOD – May 20, 2023



HRRR Smoke - Vertically Integrated Smoke – May 20, 2023



GAM PMO3 Smoke Output – May 20, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Saturday, May 20, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1646Z May 20,2023

SMOKE :

U.S/Canada/Atlantic Ocean Extending Well off the East Coast of U.S and Canada...

An exceptionally large area of smoke of varying density from the large wildfires across northeastern British Columbia, central and northern Alberta, and northern Saskatchewan continue to expand across much of the U.S and Canada. The smoke also extended well offshore over in the northern Atlantic Ocean, with moderate smoke visible over in central Atlantic Ocean and likely spreading towards Europe. Within the large area of smoke, heavy density smoke was visible over much of the main sources from the smoke, with the smoke seen over eastern British Columbia, all of Alberta and Saskatchewan, and northern Manitoba. Moderate density smoke was seen over multiple areas, with the largest area of moderate smoke encompassing western and central Canada and the northern half of the U.S. The other area of moderate density smoke was visible over the eastern/central Atlantic Ocean offshore of Northeast U.S and eastern Canada. Although the large wildfires within Western Canada are the main driving forces behind the large area of smoke, wildfires in western U.S was seen contributing to the overall smoke.

SMOKE/AEROSOL:

Southern U.S./Gulf of Mexico/Mexico/Central America...

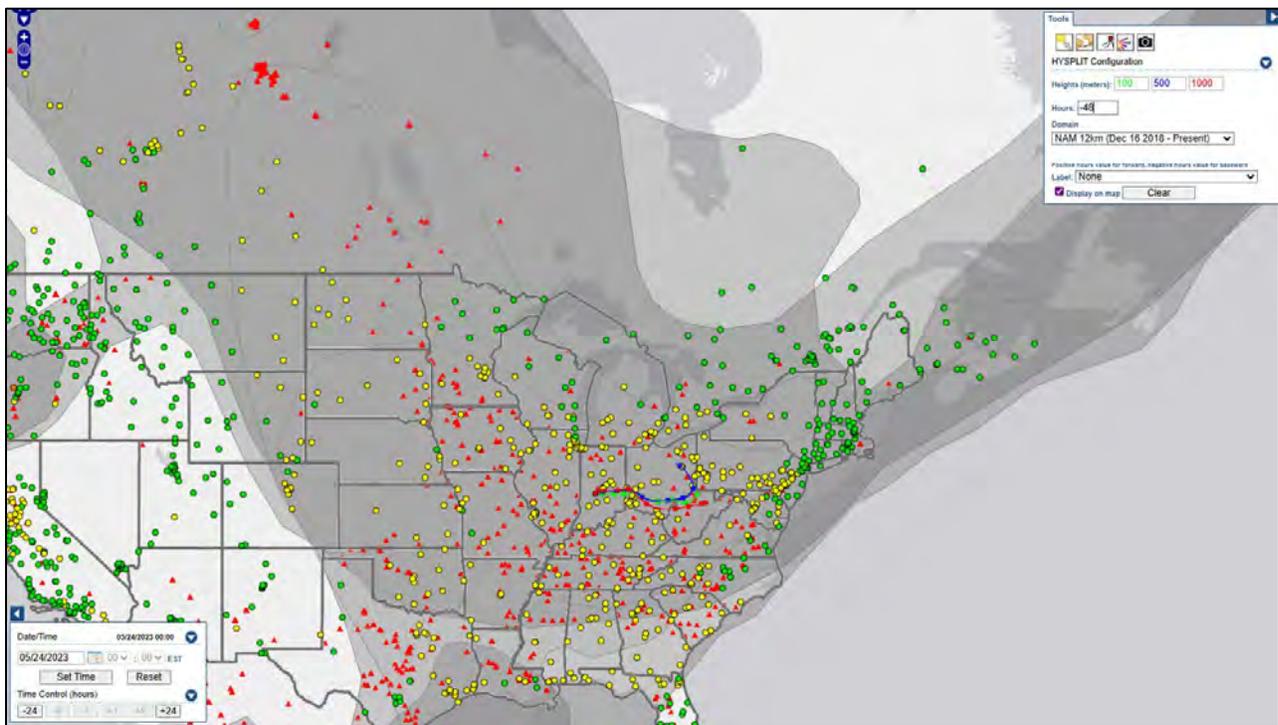
An extensive area of thin density smoke linked mainly to the ongoing widespread burning season along with a few wildfires in Mexico and northwestern Central America was detected over much of eastern and southern Mexico, all of northwestern Central America, the Pacific Ocean well south and southwest off coast of Mexico and Northwest Central America, and the Gulf of Mexico. This smoke extended northward towards the southern and Central U.S, where it is mingling with the larger expansive area of smoke mentioned in the "SMOKE" section prior. Within this large mass of thin density smoke was an area of moderate density smoke which was detected over south-central Mexico and Pacific Ocean offshore of southern Mexico. While the majority of what was detected on satellite imagery was believed to be smoke, some aerosols from industrial activity mainly in Mexico and Central America may be mixing in.

May 24, 2023

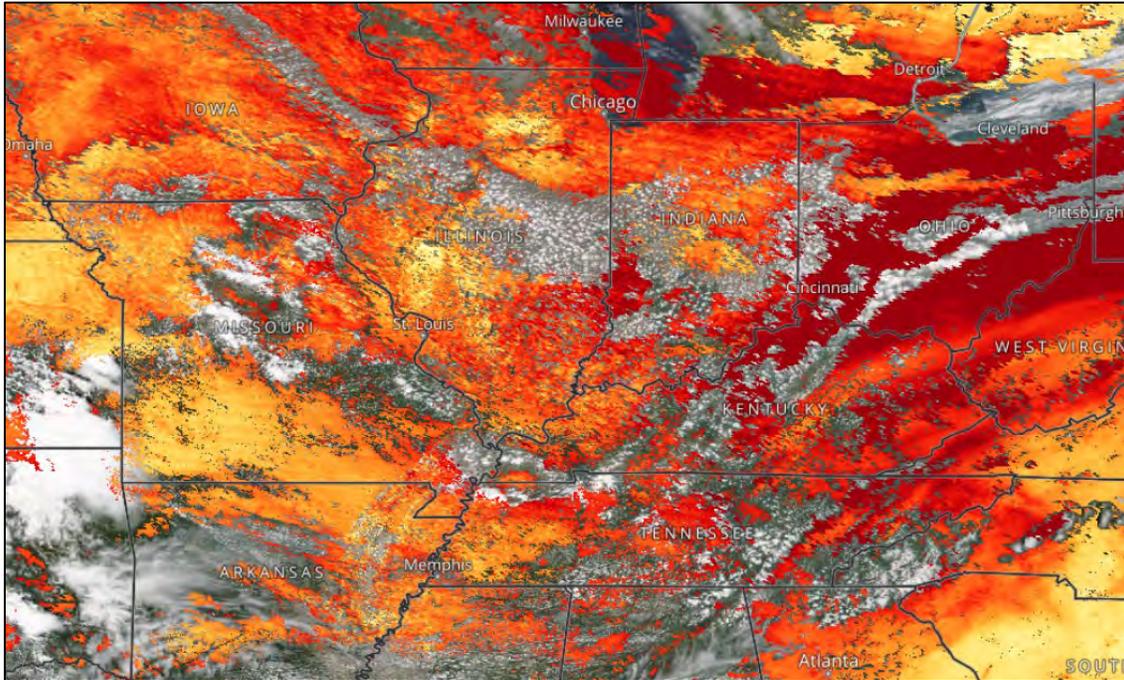
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Kokomo - E. Vaile Ave	180670004	5/24/2023	15.7	14.7
Indianapolis - School 21	180970084	5/24/2023	15.9	15.5
Bloomington - Binford	181050003	5/24/2023	13.5	12.8
Evansville – U of E	181630016	5/24/2023	15.0	15.0

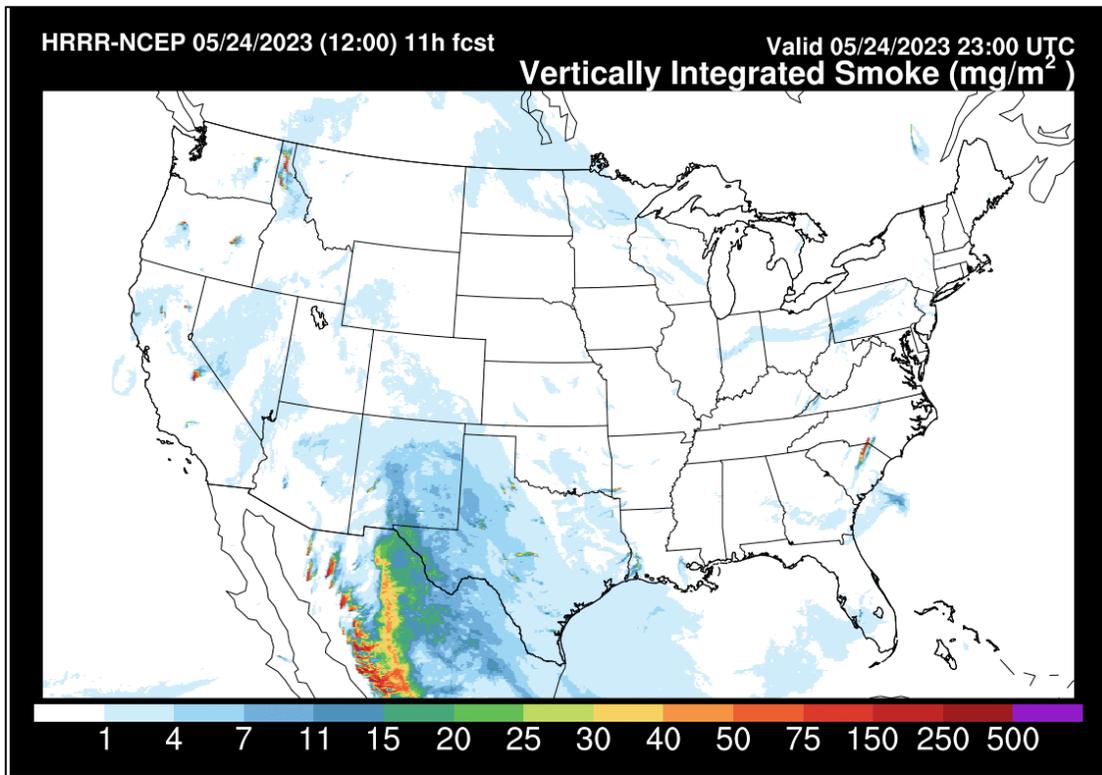
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 24, 2023



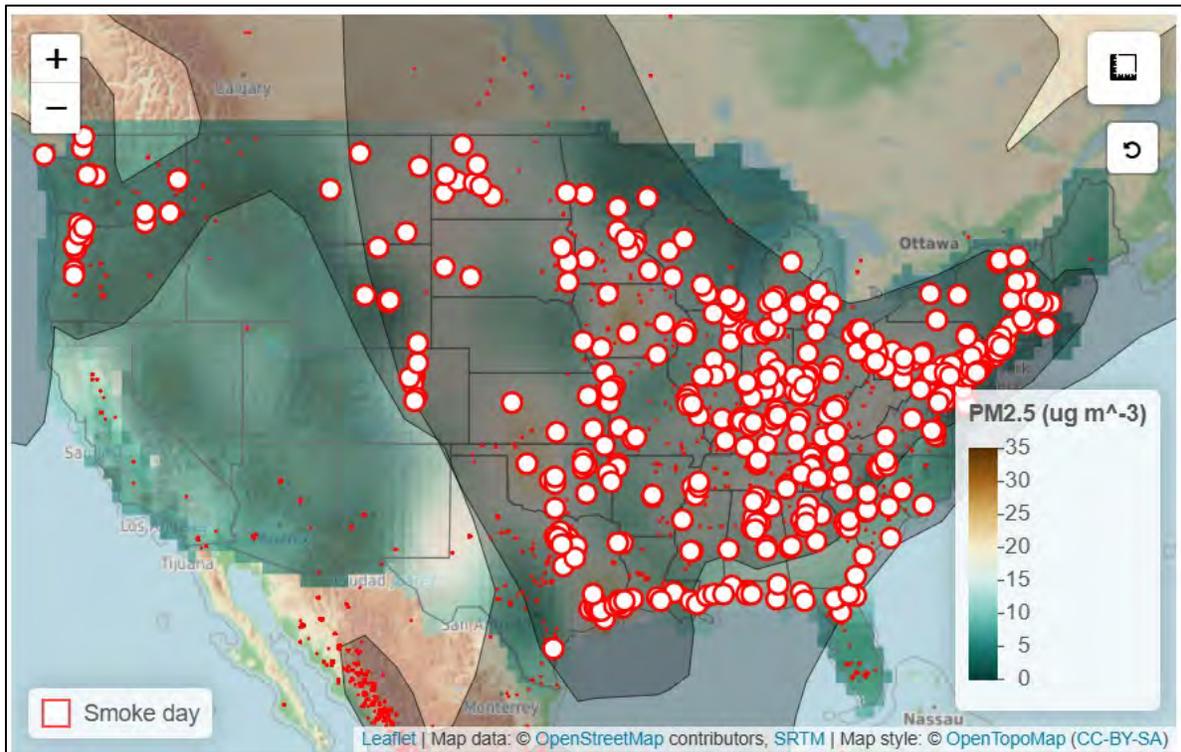
Satellite Imagery with MAIAC AOD – May 24, 2023



HRRR Smoke - Vertically Integrated Smoke – May 24, 2023



GAM PMO3 Smoke Output – May 24, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Wednesday, May 24, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z May 24,2023

SMOKE :

Canada/U.S./Atlantic...

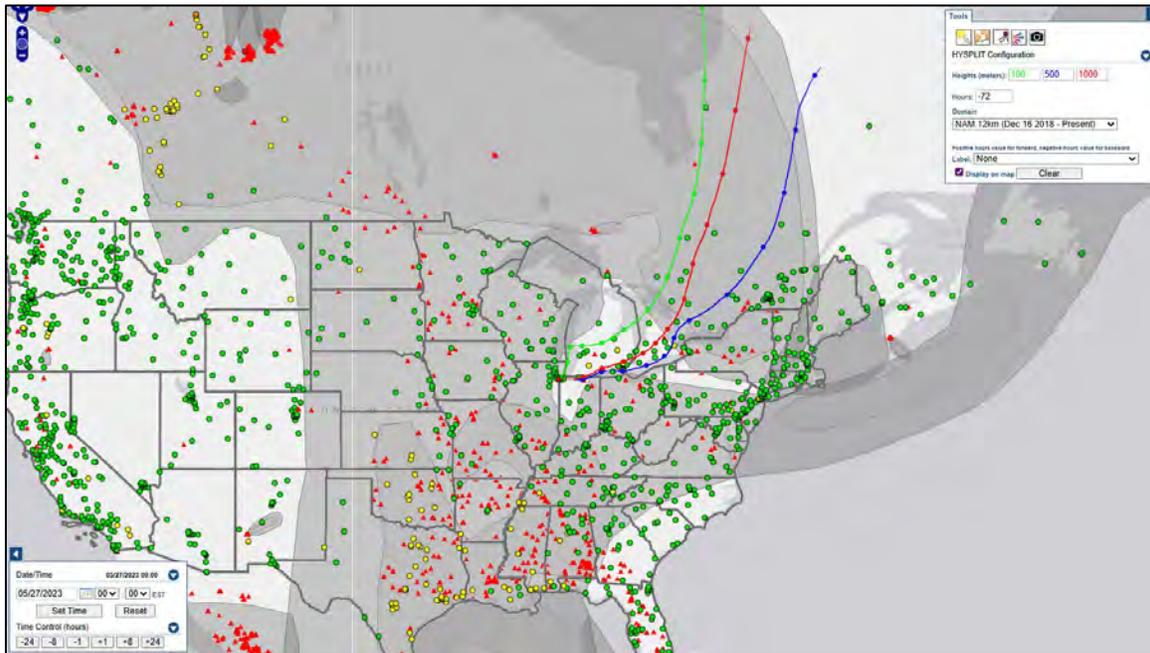
An exceptionally large area of smoke, emanating from the large wildfires occurring mainly in central and northern Saskatchewan, northern Alberta, and southwestern Northwest Territories, continues to impact significant portions of Canada, the United States, and extending off the east coast of the United States and into the North Atlantic Ocean. Moderate to very thick density smoke from the large wildfires in the Northwest Territories was seen moving southeast briefly before extending northeast across the region. Moderate smoke was also seen over the majority of the northern U.S. Cloud cover over portions of western and south-central Canada and northern U.S. limited smoke detection from satellite imagery in those areas.

May 27, 2023

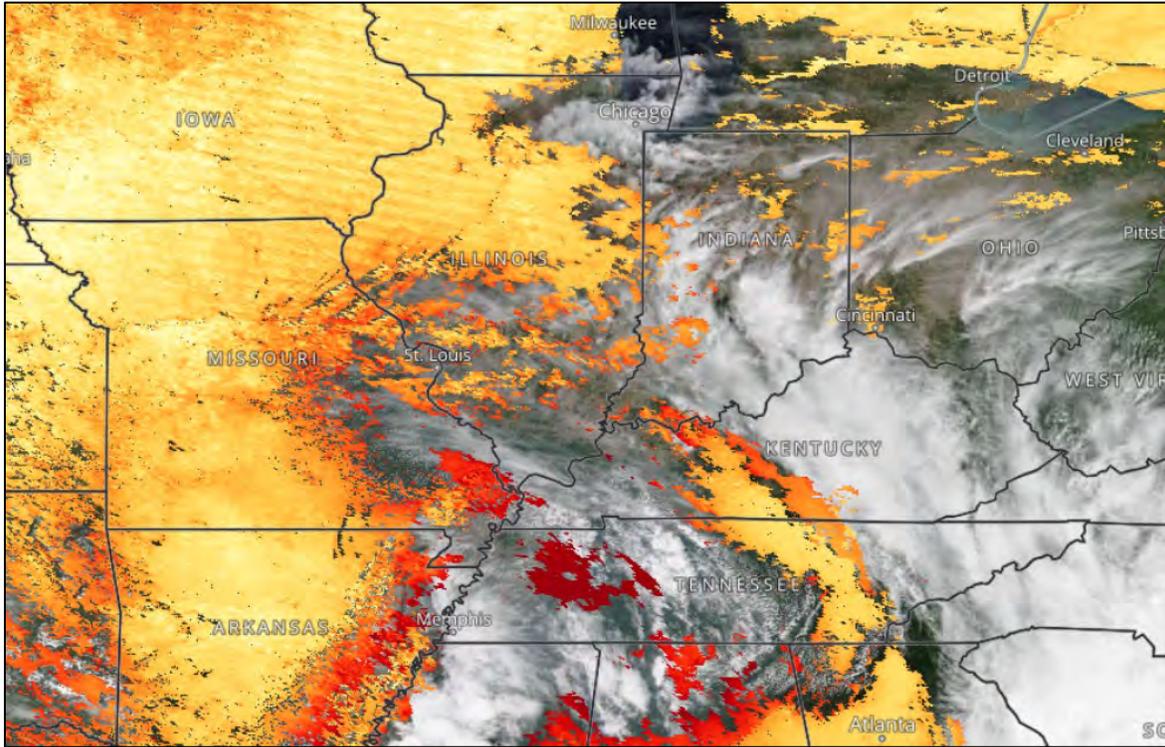
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Gary - Madison St	180890031	5/27/2023	22.2	16.0

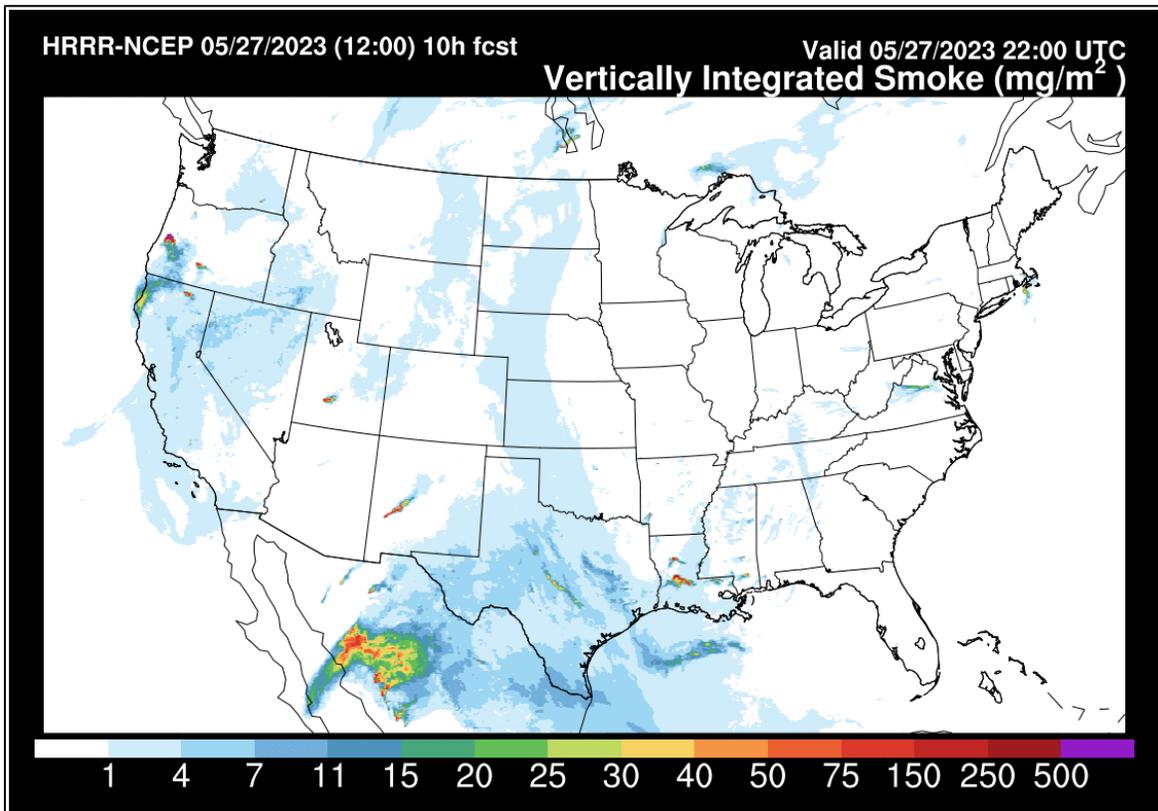
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – May 27, 2023



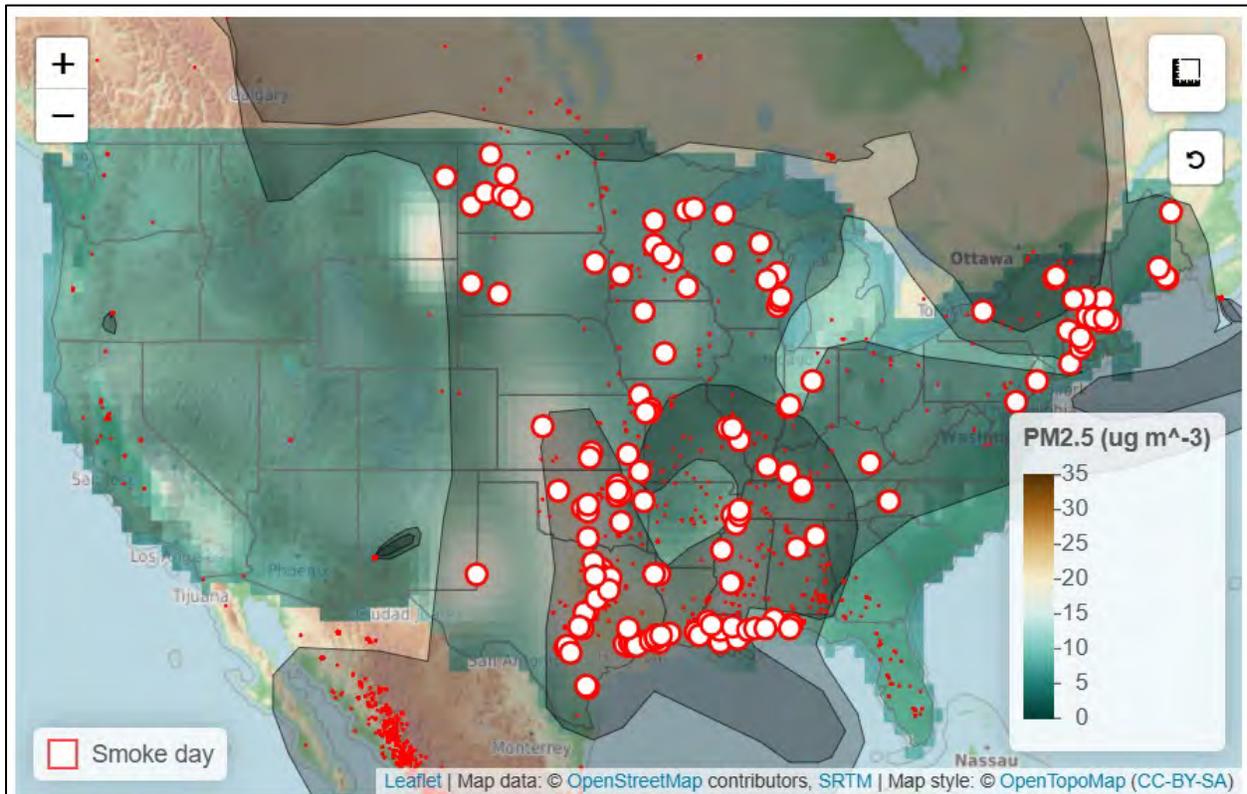
Satellite Imagery with MAIAC AOD – May 27, 2023



HRRR Smoke - Vertically Integrated Smoke – May 27, 2023



GAM PMO3 Smoke Output – May 27, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Saturday, May 27, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z May 27, 2023

SMOKE:

Canada/U.S./Atlantic Ocean...

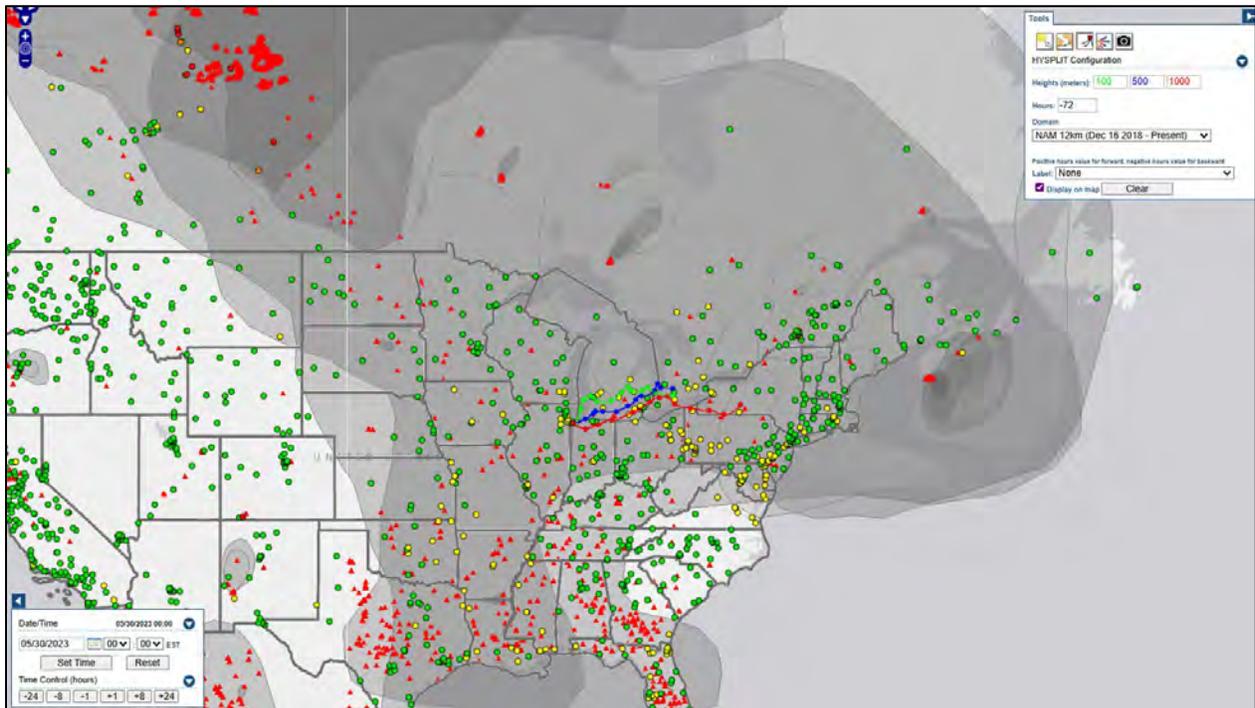
An expansive area that is the result of smoke from wildfire activity across northern and western Canada was observed blanketing much of Canada, the eastern and central CONUS, and significant portions of the north Atlantic. The most significant smoke was observed emanating from the wildfire activity in the Northwest Territory, far northeastern BC, and northern Alberta extending northeastward then east-southeastward. Moderate density smoke was also seen in a thin stripe off the NE US Coast and into a cyclone over the Maritime Provinces with a separate area across the southeastern and south-central CONUS. Much of the smoke across Canada and the North Atlantic is moving eastward, while smoke over the southern CONUS was drifting westward.

May 30, 2023

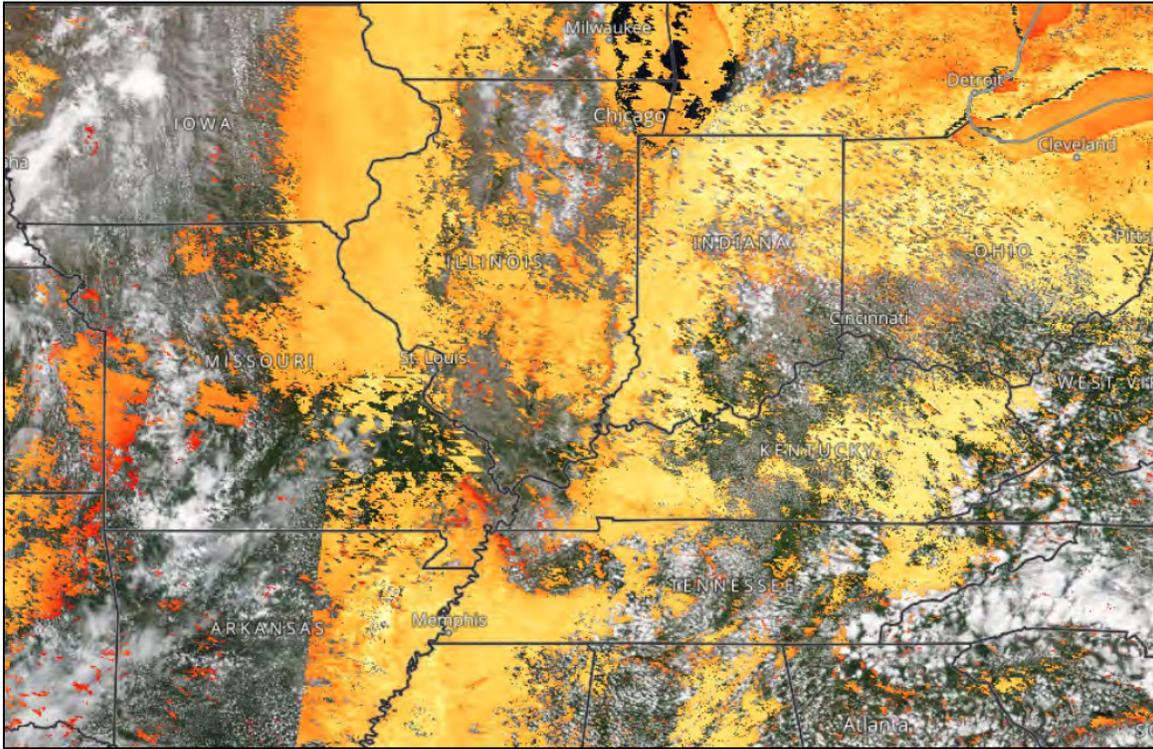
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Gary - Madison St	180890031	5/30/2023	26.4	16 .0

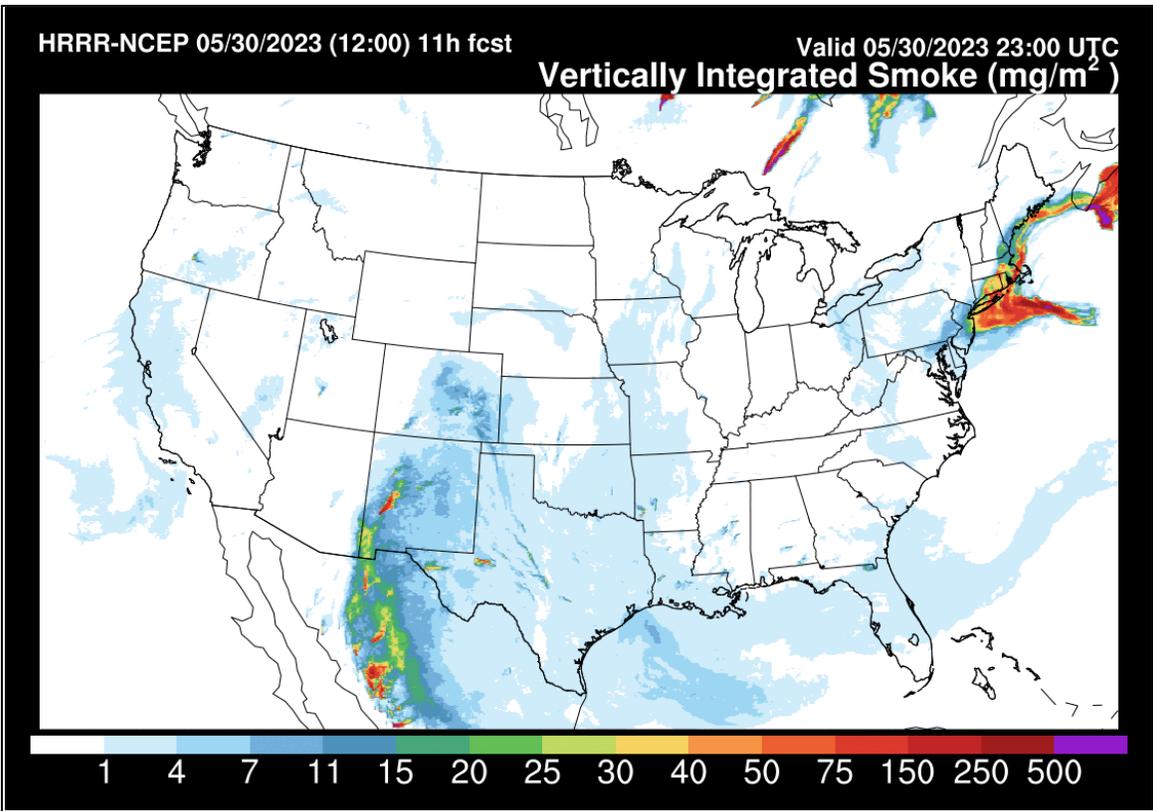
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - May 30, 2023



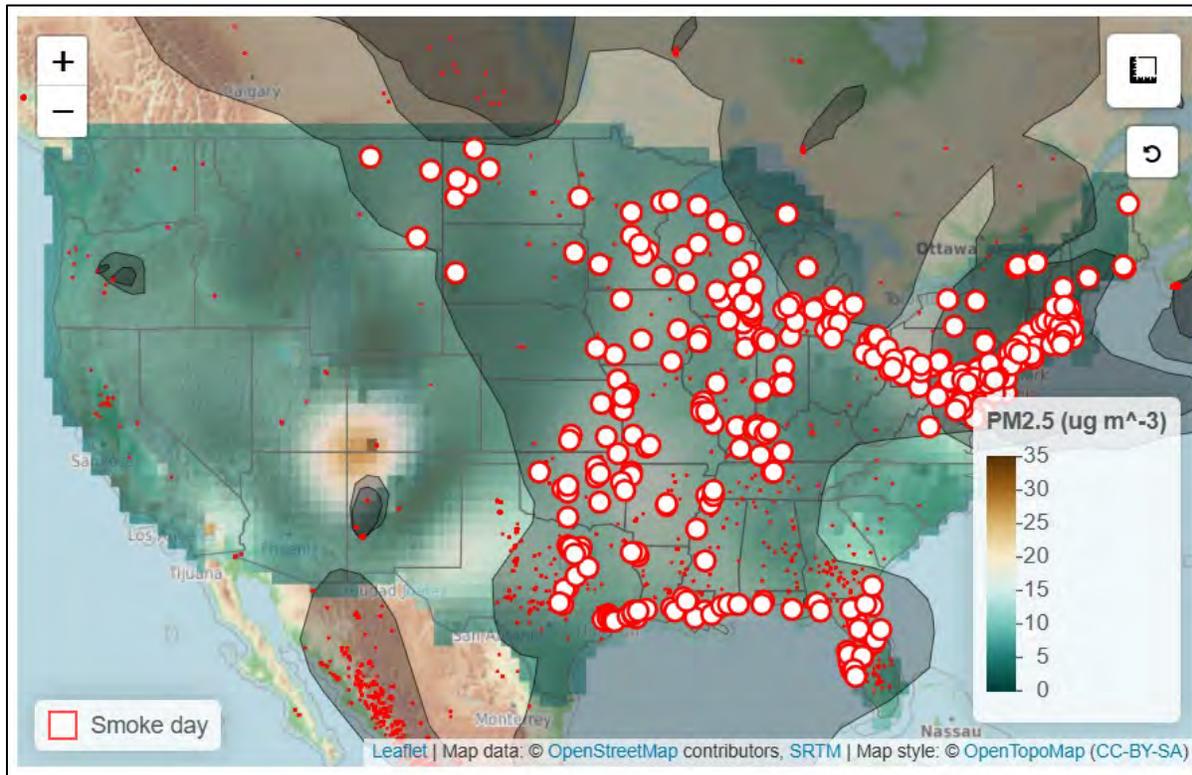
Satellite Imagery with MAIAC AOD – May 30, 2023



HRRR Smoke - Vertically Integrated Smoke – May 30, 2023



GAM PMO3 Smoke Output – May 30, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Tuesday, May 30, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1610Z May 30, 2023

SMOKE:

Canada/Atlantic...

A large area of smoke primarily linked to major wildfire activity in northeastern British Columbia, northern Alberta, and central/northern Saskatchewan continues to blanket a large part of Canada. Areas of high smoke concentration were found along northern Alberta, central/northern Saskatchewan, southeastern Northwest Territories, and northwestern Manitoba. Moderate density smoke was detected over northern Hudson's Bay and across central Quebec, extending over the northwestern Atlantic Ocean. Overall, the bulk of the large area smoke was dispersing eastward in the general direction of the northern Atlantic.

Central U.S...

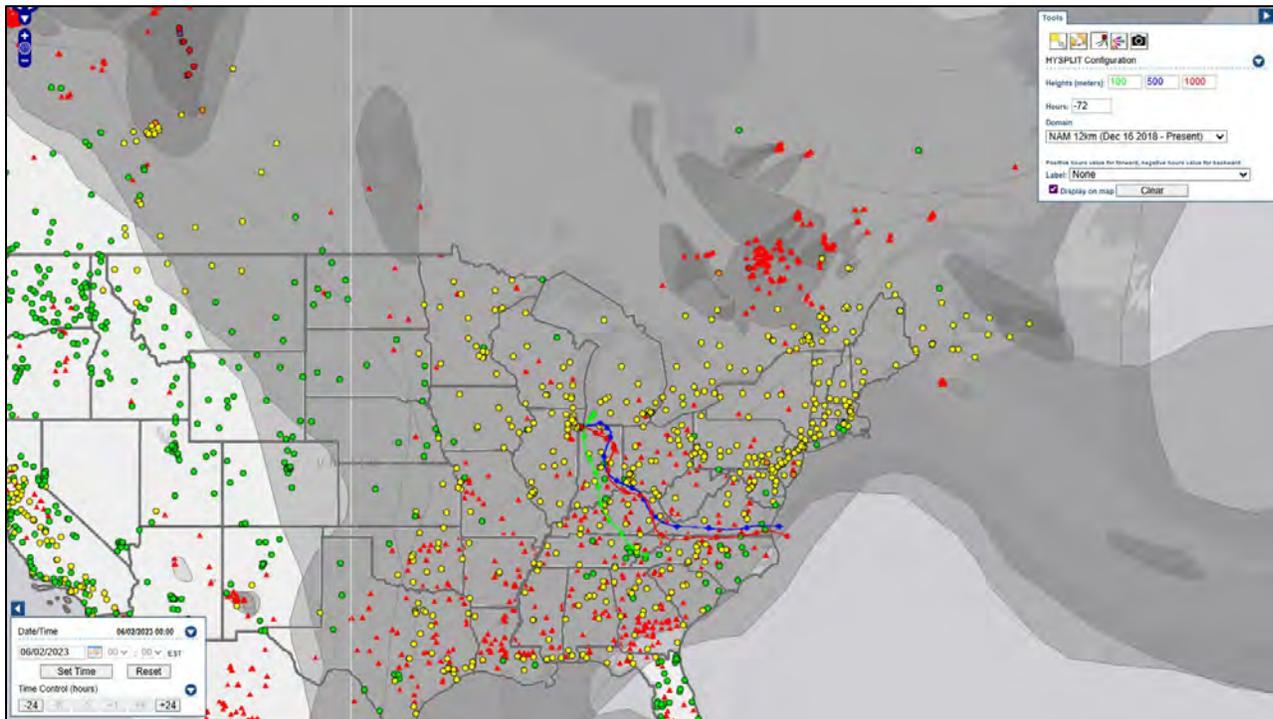
Light smoke resulting from Canadian wildfires extended south into the Great Plains where it mixed with smoke from seasonal fires in the Mississippi Valley reaching the coastal areas along the Gulf of Mexico.

June 2, 2023

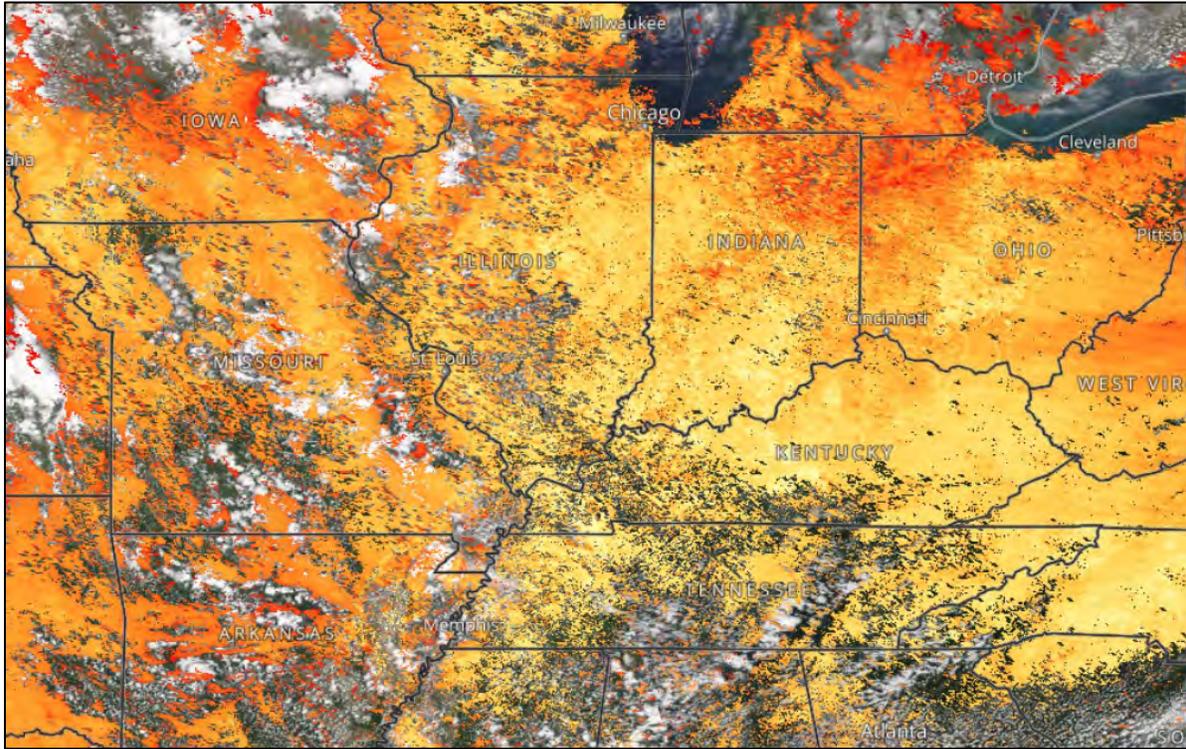
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Gary - Madison St	180890031	6/2/2023	40.8	16.0

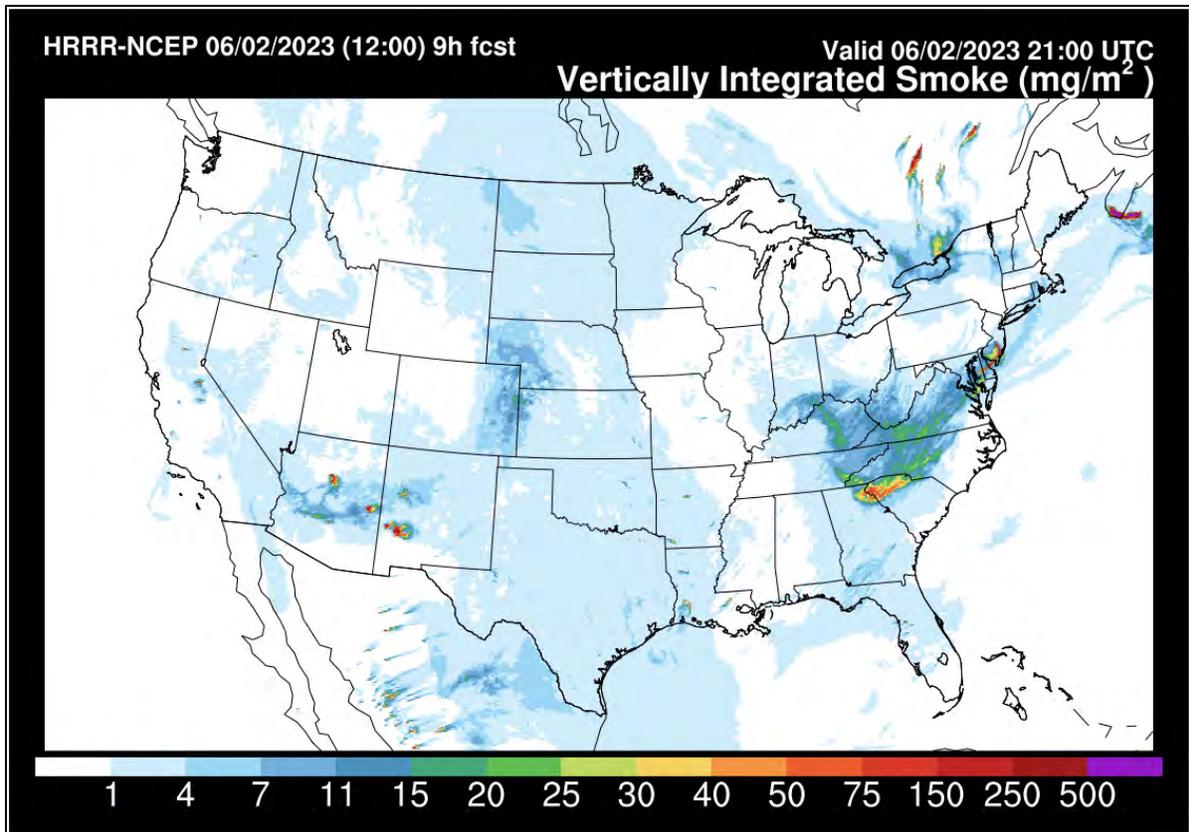
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – June 2, 2023



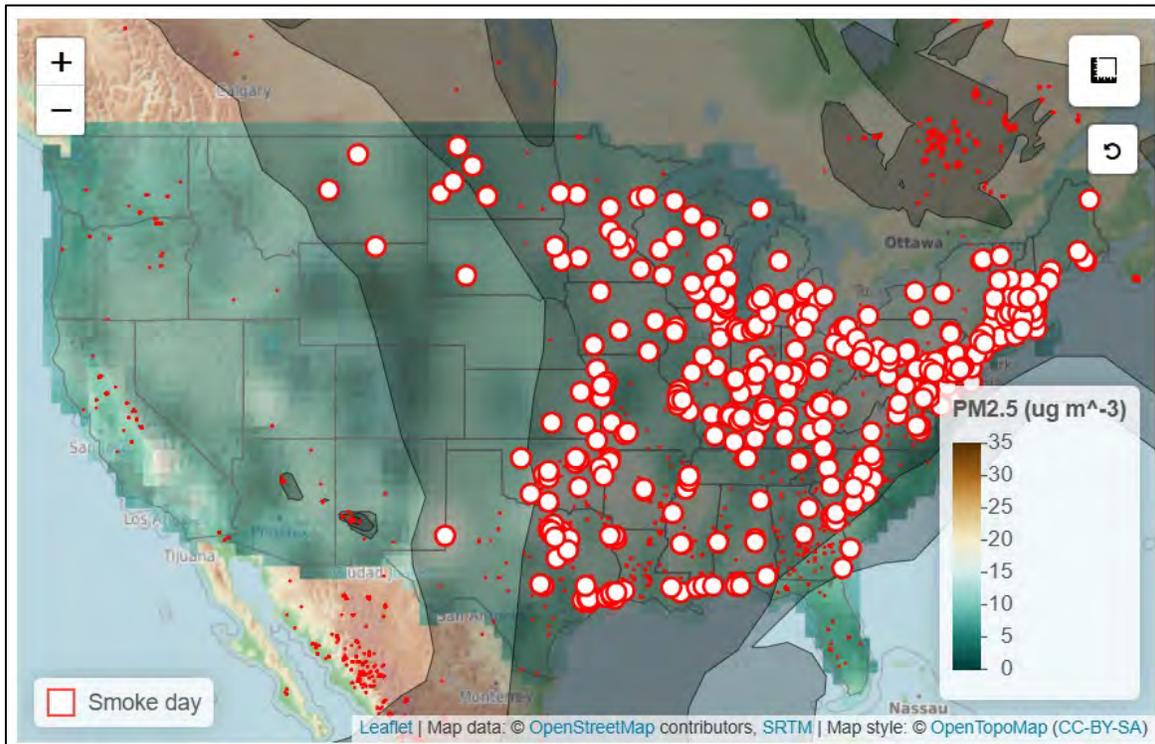
Satellite Imagery with MAIAC AOD – June 2, 2023



HRRR Smoke - Vertically Integrated Smoke – June 2, 2023



GAM PMO3 Smoke Output – June 2, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Friday, June 2, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z June 2, 2023

SMOKE :

Canada/Eastern CONUS/North Atlantic...

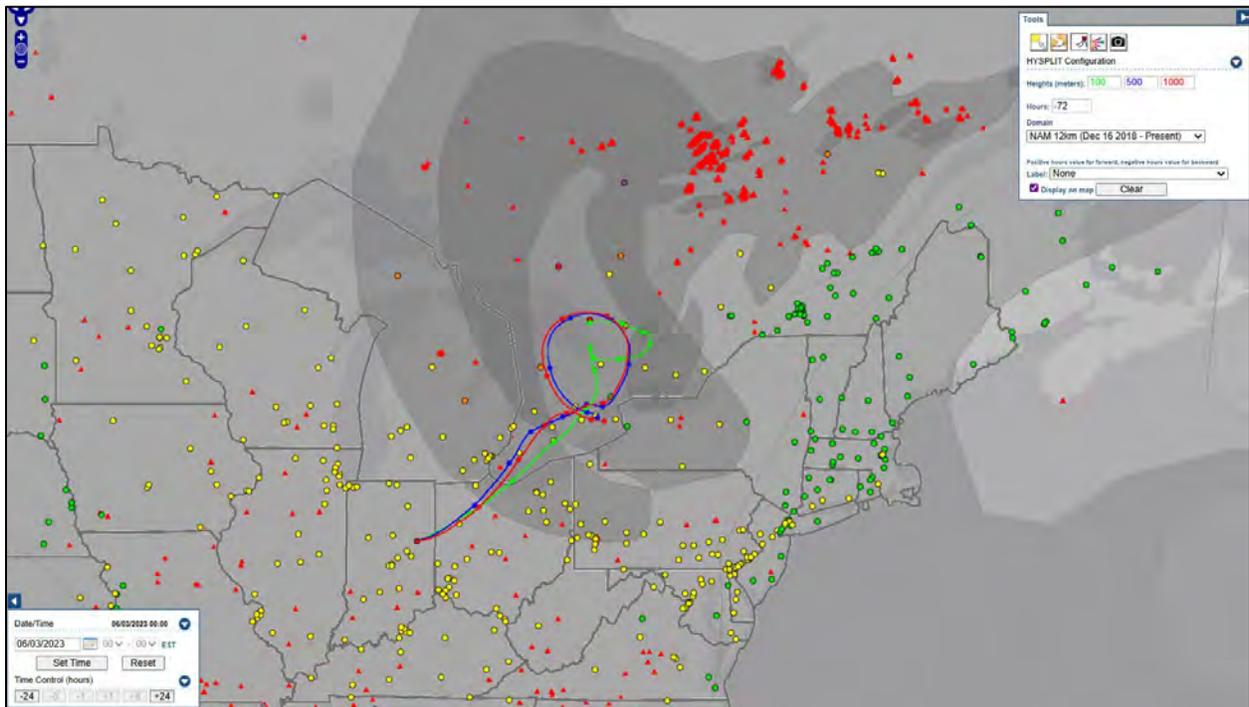
Wildfire activity in west-central Canada, now along with some activity in the southern half of Quebec, continues to produce moderate to thick smoke that blankets an area covering much of Canada, the eastern half of the CONUS, and portions of the North Atlantic. The thickest smoke resides closer to the wildfires in central and north-central Canada, extending northeast across the Northwestern Territories and Nunavut. Further thick smoke was seen from the southern parts of James Bay to across the Quebec/Ontario border as well as over parts of the Maritime Provinces that specifically was emitted by a large fire north of Sept-Iles, Quebec. Moderate density smoke was seen over in central and northern Canada, then extending east/southeast across Canada, the Great Lakes, Great Plains, and northeastern CONUS. In far southern Nova Scotia, a wildfire continues to produce smoke that extends east-southeastward out over the Atlantic as well.

June 3, 2023

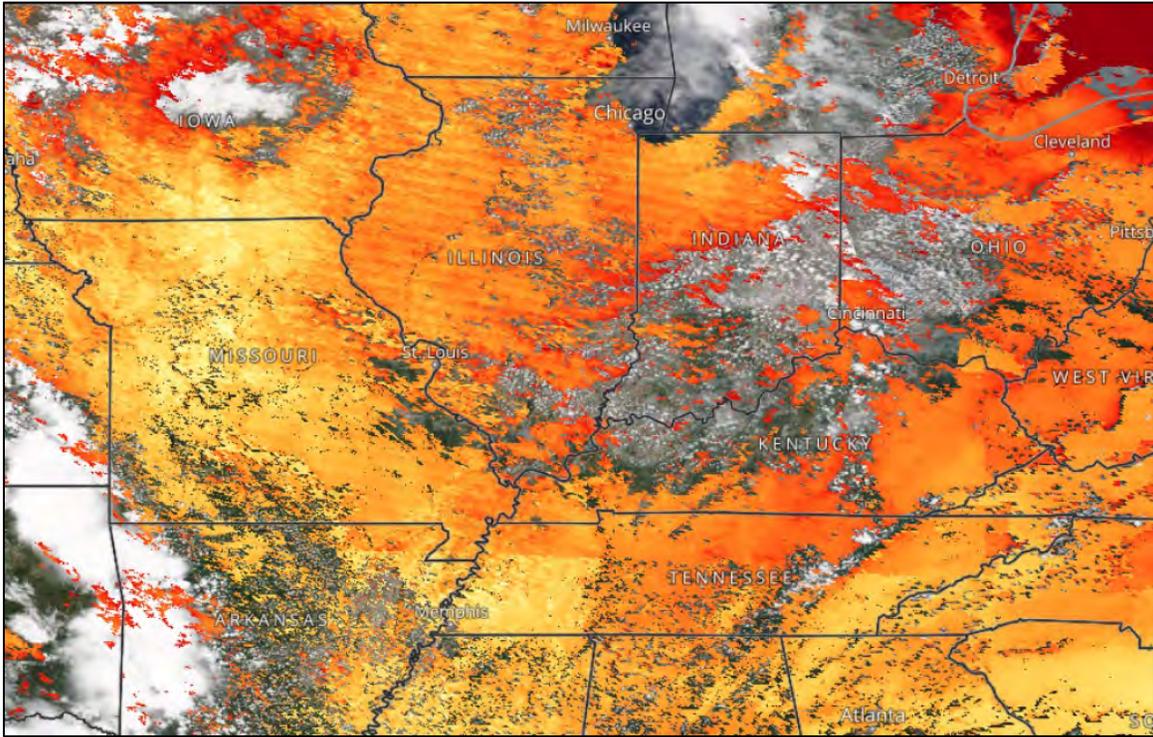
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Jeffersonville - Bates-Bowyer Ave	180190010	6/3/2023	18.8	17.0
Mechanicsburg	180650003	6/3/2023	16.2	15.5
Anderson - Eastside Elem	180950011	6/3/2023	15.4	15.4
Larwill	181830003	6/3/2023	16.9	15.0

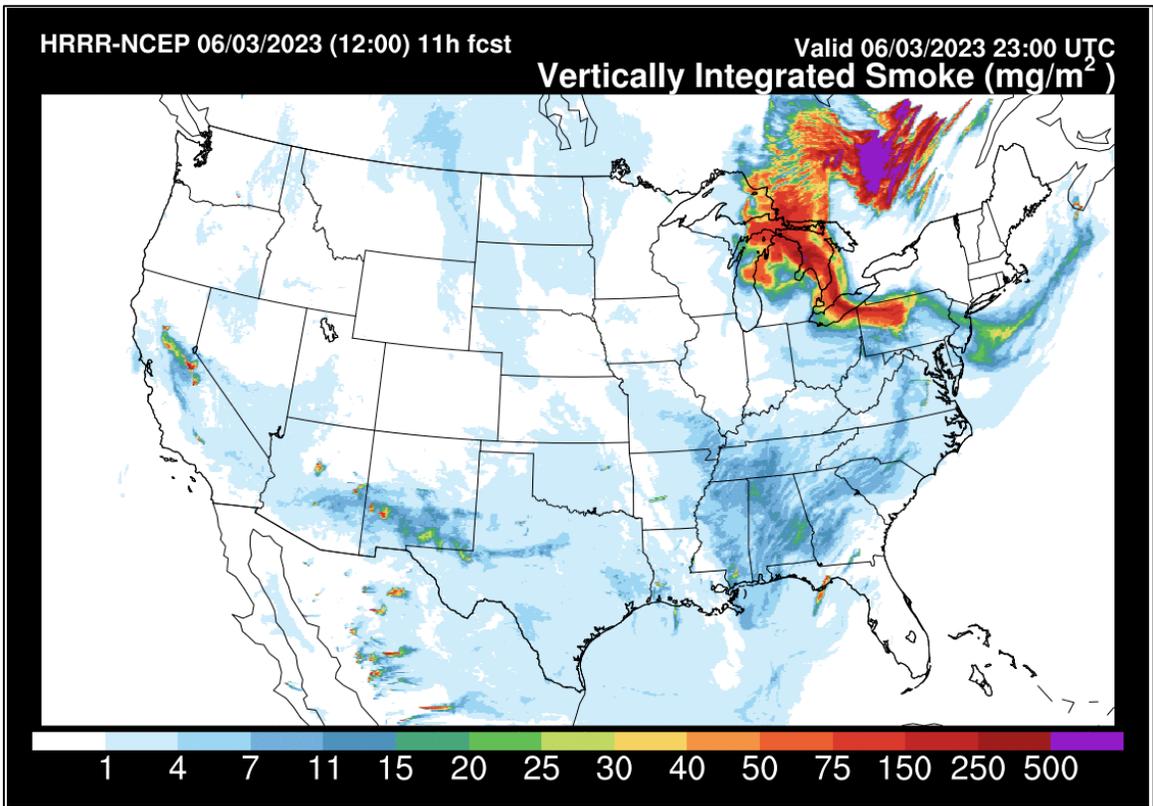
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – June 3, 2023



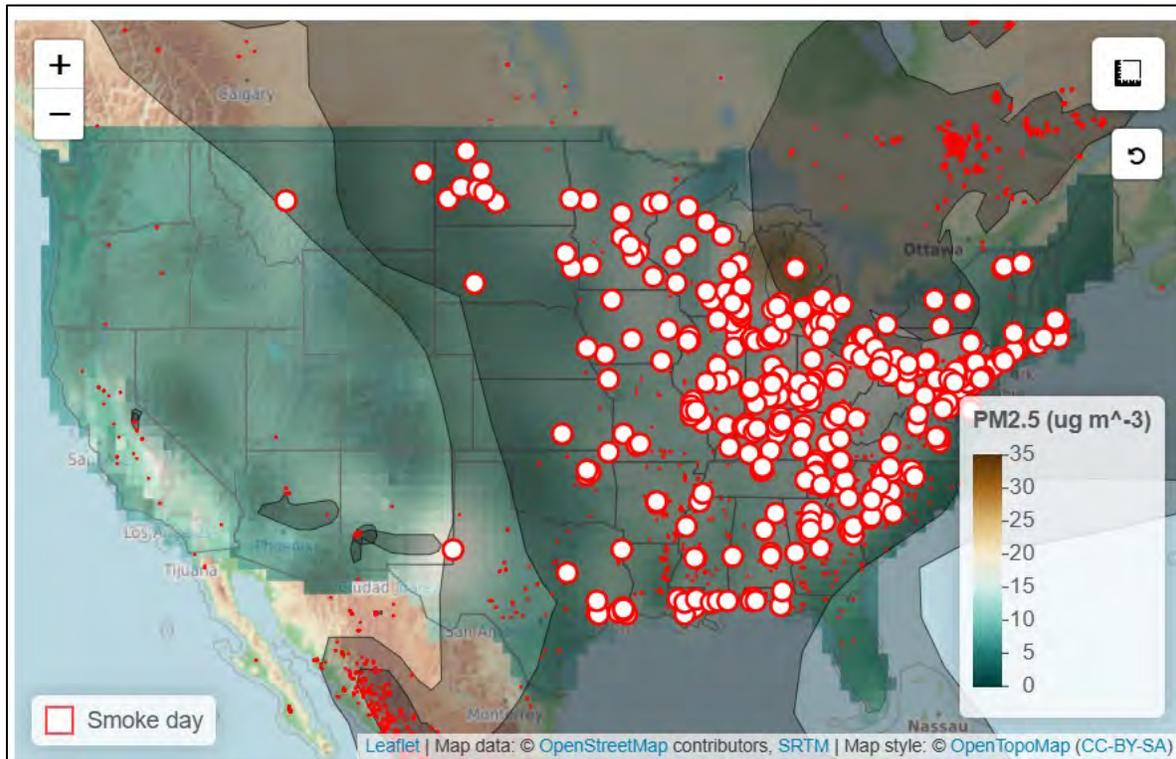
Satellite Imagery with MAIAC AOD – June 3, 2023



HRRR Smoke - Vertically Integrated Smoke – June 3, 2023



GAM PMO3 Smoke Output – June 3, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Saturday, June 3, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1630Z June 3, 2023

SMOKE:

Canada/Eastern CONUS/North Atlantic...

Wildfire activity in west-central Canada, now along with some activity in the southern half of Quebec, continues to produce moderate to thick smoke that blankets an area covering much of Canada, the eastern half of the CONUS, and portions of the North Atlantic. The thickest smoke resides closer to the wildfires in central and north-central Canada, extending northeast across the Northwestern Territories and Nunavut. Further thick smoke was seen from numerous fires in the southern/western parts of Quebec enveloped southwestern Quebec continuing into southeastern Ontario and into parts of New York. Moderate density smoke was seen over in central and northern Canada, then extending east/southeast across Canada, the Great Lakes, Great Plains, over the central/eastern U.S and the Atlantic Ocean off the coast eastern U.S and southeastern Canada. Some of the smoke from the fires in Mexico and Central America is mixing in with the smoke from the Canadian wildfires somewhere over the south central and southeastern U.S., and the northern Gulf of Mexico.

Arizona/New Mexico...

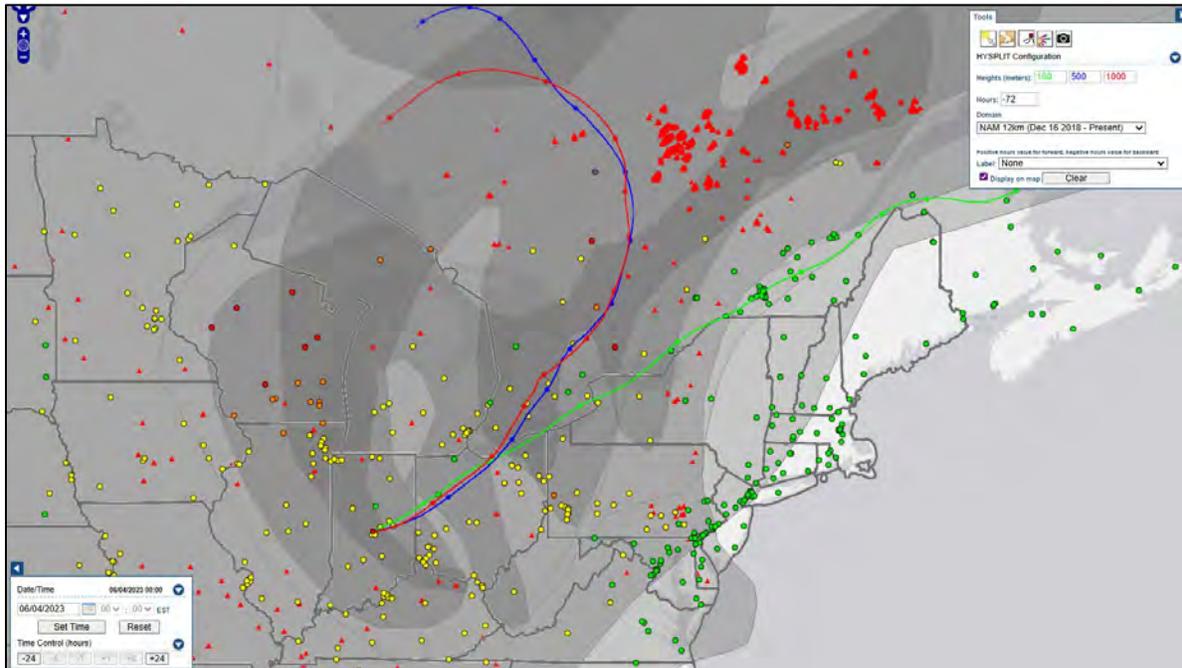
Current wildfire activity in New Mexico was seen producing moderate density smoke plumes moving south. Remnant thin density smoke from the wildfires in both Arizona and New Mexico was seen scattering to the east and south.

June 4, 2023

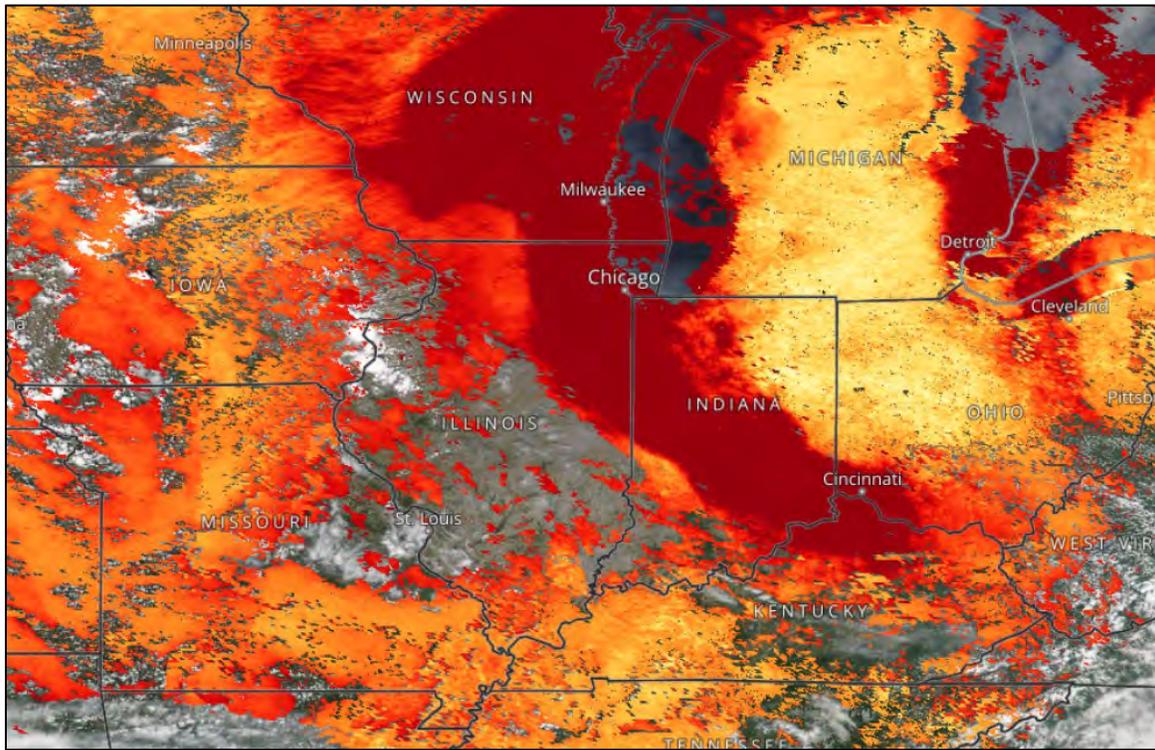
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Columbus - Rocky Ford Drive	180050008	6/4/2023	17.2	13.7
Jeffersonville - Bates-Bowyer Ave	180190010	6/4/2023	29.5	17.0
New Albany	180430008	6/4/2023	20.9	20.9
Plummer	180550001	6/4/2023	29.1	14.7
East Chicago - Marina	180890034	6/4/2023	19.7	18.0
Hammond-167th St	180890036	6/4/2023	19.2	16.3
Bloomington - Binford	181050003	6/4/2023	24.9	13.9
Evansville - Buena Vista	181630021	6/4/2023	21.9	15.1
Terre Haute - Lafayette Ave	181670018	6/4/2023	18.9	18.8

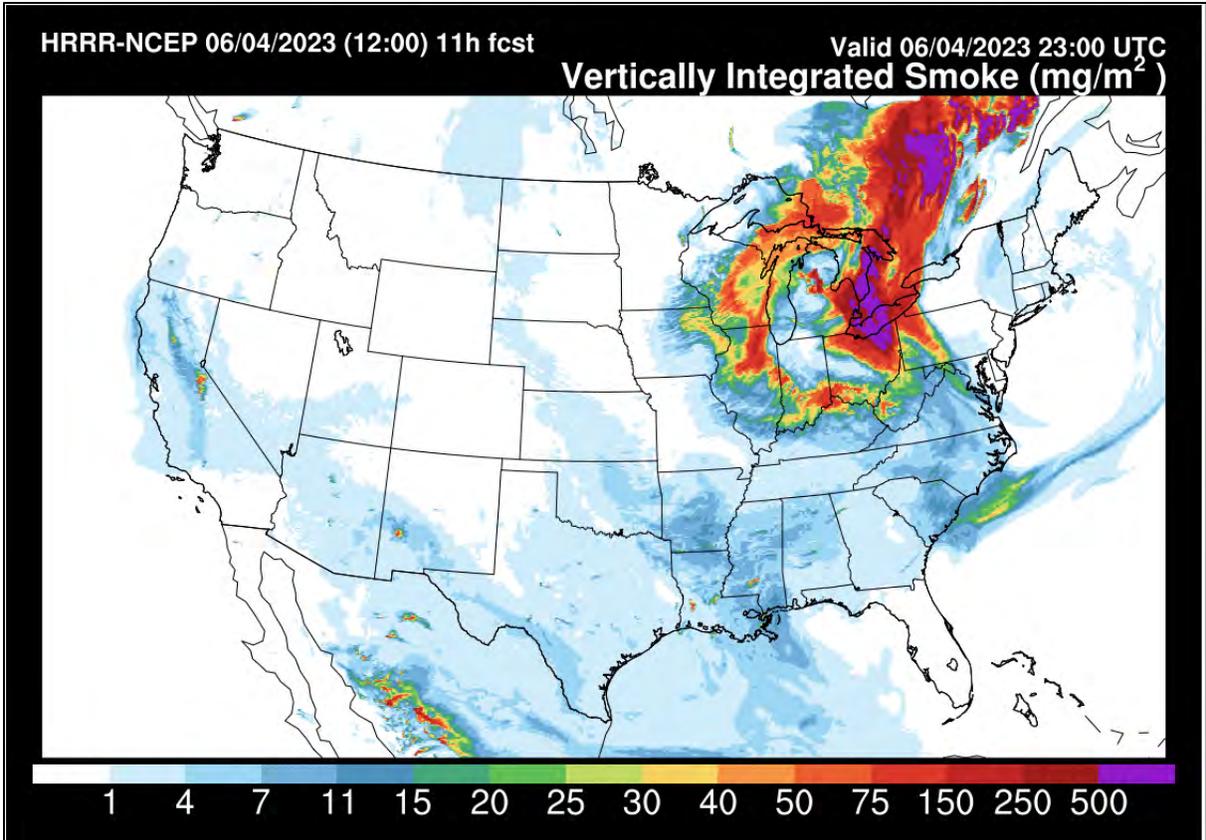
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – June 4, 2023



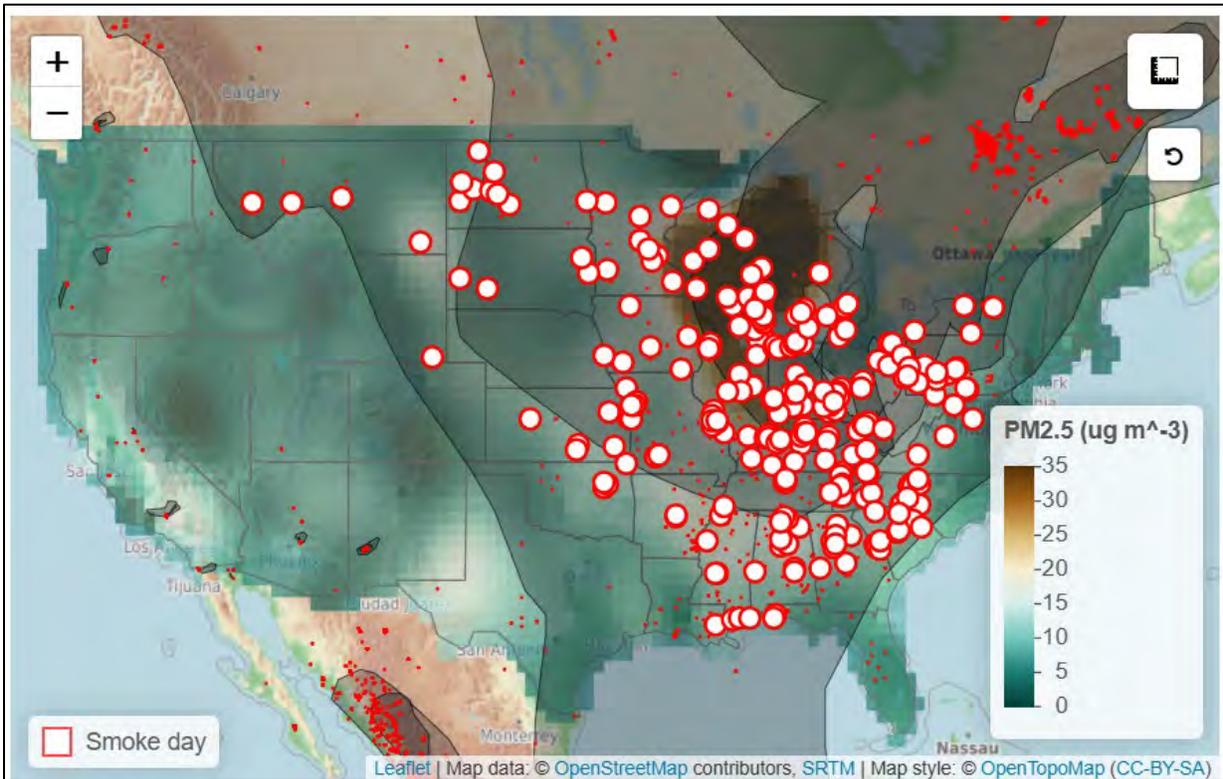
Satellite Imagery with MAIAC AOD – June 4, 2023



HRRR Smoke - Vertically Integrated Smoke – June 4, 2023



GAM PMO3 Smoke Output – June 4, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts**Sunday, June 4, 2023**DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY
THROUGH 1700Z June 4, 2023

SMOKE:

Canada/Eastern CONUS...

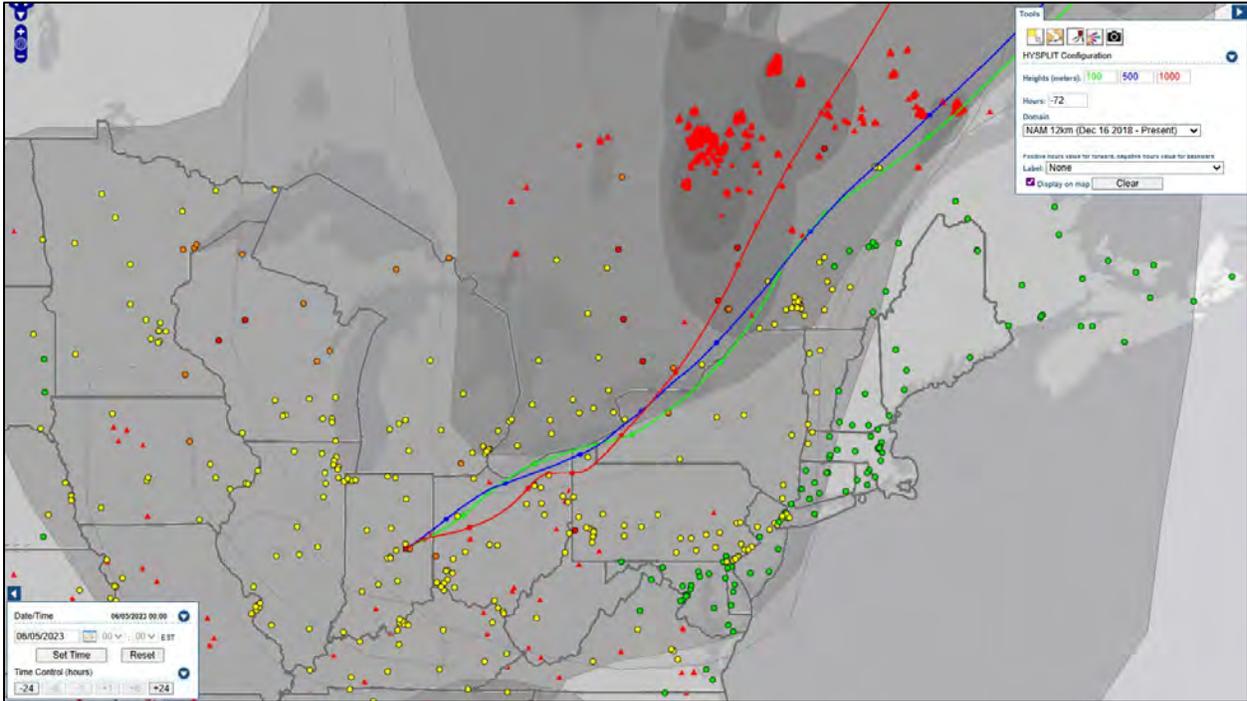
Wildfire activity in west-central Canada, now along with some activity in the southern half of Quebec, continues to produce moderate to thick smoke that blankets an area covering much of Canada, the eastern half of the CONUS, and portions of the North Atlantic. The thickest smoke resides closer to the wildfires in central and north-central Canada, extending northeast across the Northwestern Territories and Nunavut. Further thick smoke was seen from numerous fires in the southern/western parts of Quebec enveloping southwestern Quebec continuing into eastern Ontario, also extending over parts of the U.S, notably the Ohio Valley region. Moderate density smoke was seen over in northern Canada, then extending east/southeast across Canada, the Great Lakes, Great Plains, and over the central/eastern U.S. Some of the smoke from the fires in Mexico and Central America is mixing in with the smoke from the Canadian wildfires somewhere over the south central and southeastern U.S., and the northern Gulf of Mexico.

June 5, 2023

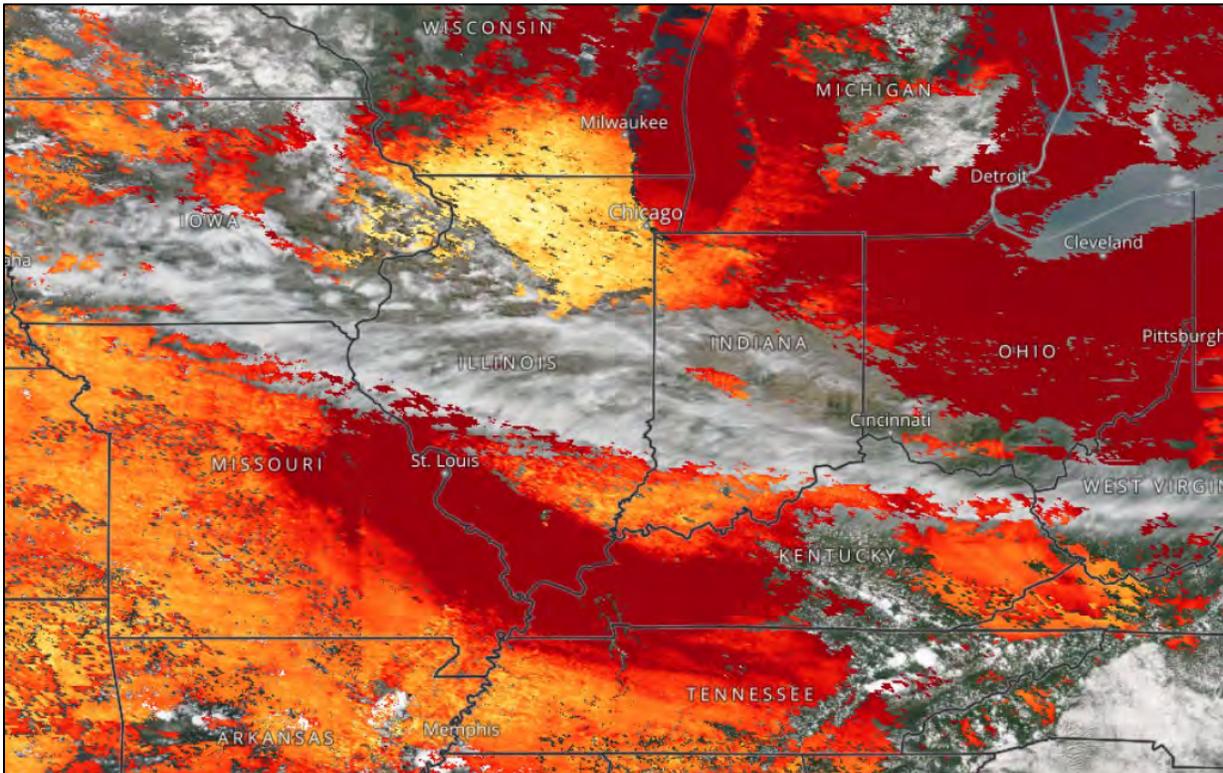
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Columbus - Rocky Ford Drive	180050008	6/5/2023	15.9	13.7
Jeffersonville - Bates-Bowyer Ave	180190010	6/5/2023	38.8	17.0
Muncie - Central HS	180350006	6/5/2023	26.1	13.2
Fishers	180570007	6/5/2023	19.8	13.8
Carmel - Hazel Dell Parkway	180570008	6/5/2023	20.7	16.5
Mechanicsburg	180650003	6/5/2023	23.3	15.5
Kokomo - E. Vaile Ave	180670004	6/5/2023	27.7	14.7
East Chicago - Franklin	180890006	6/5/2023	16.9	16.1
Gary - Madison St	180890031	6/5/2023	28.3	16.0
Hammond-167th St	180890036	6/5/2023	18.3	16.3
Anderson - Eastside Elem	180950011	6/5/2023	33.3	15.4
Indianapolis - Washington Park	180970078	6/5/2023	31.9	17.8
Indianapolis - W. 18th St.	180970081	6/5/2023	21.7	20.9
Indianapolis - School 21	180970084	6/5/2023	24.0	15.5
Indianapolis - I-70 E	180970087	6/5/2023	31.3	20.5
Bloomington - Binford	181050003	6/5/2023	14.6	13.9
Ogden Dunes	181270024	6/5/2023	15.5	15.3
Dale	181470009	6/5/2023	13.9	13.9
Lafayette - Greenbush St	181570008	6/5/2023	23.1	15.1
Terre Haute - Lafayette Ave	181670018	6/5/2023	23.8	18.8
Larwill	181830003	6/5/2023	20.4	15.0

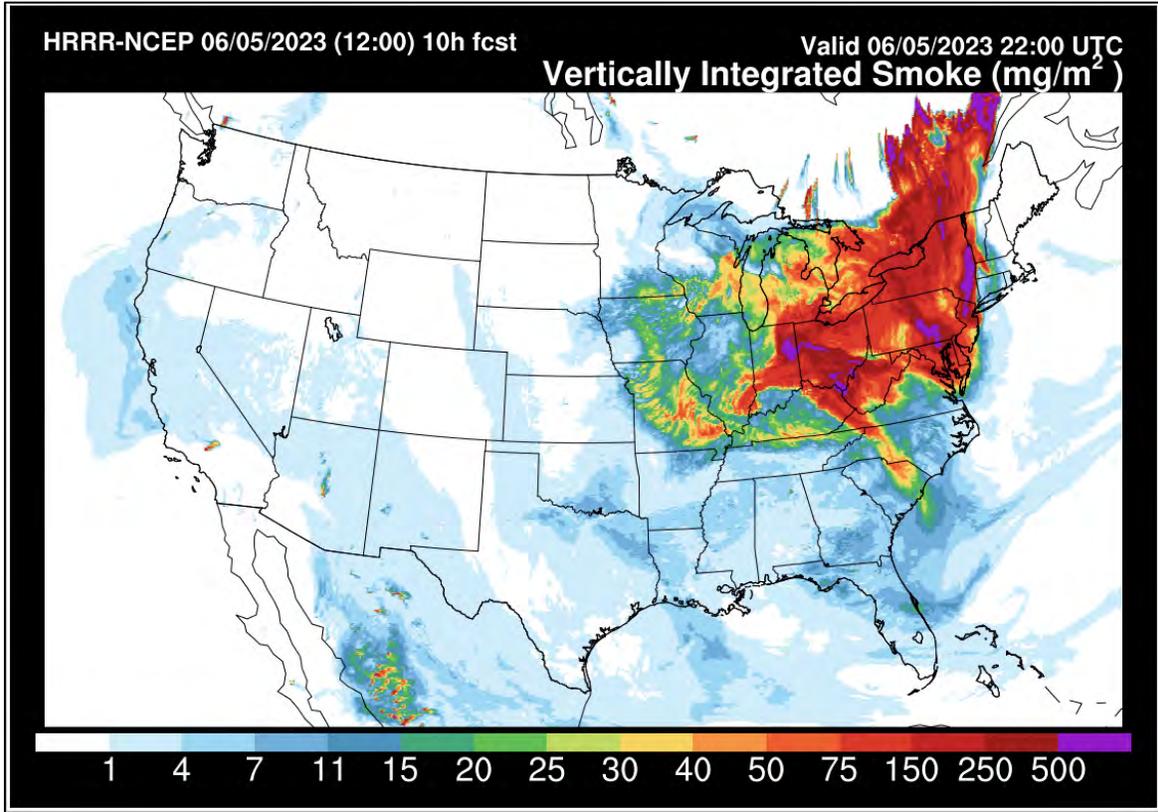
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – June 5, 2023



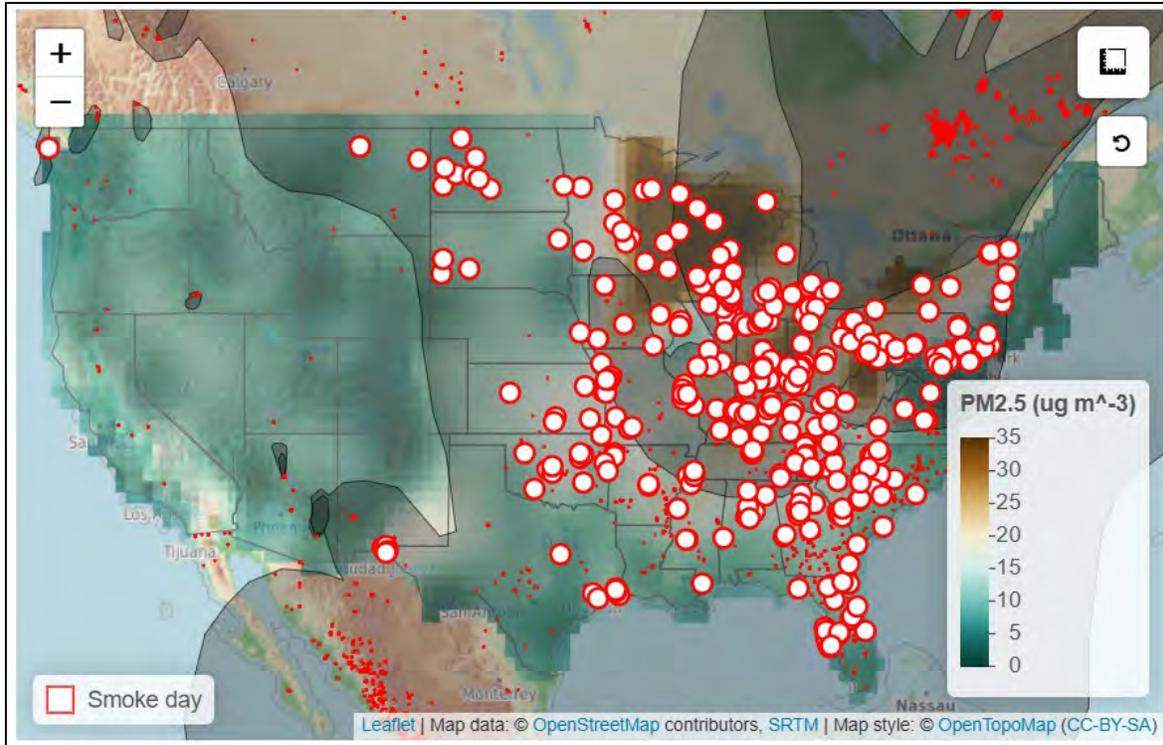
Satellite Imagery with MAIAC AOD – June 5, 2023



HRRR Smoke - Vertically Integrated Smoke – June 5, 2023



GAM PMO3 Smoke Output – June 5, 2023



NOAA Satellite Smoke – 2023 Satellite Smoke Text Excerpts

Monday, June 5, 2023

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1550Z June 5, 2023

SMOKE:

Canada, Central United States and Eastern United States....

Wildfire activity in west-central Canada and over southern Quebec, continues to produce a large area of smoke that extends over most of Canada, the Central and Eastern United States and extending into the north Atlantic Ocean. Within this large area of smoke, moderate to high density smoke extends over much of northern Canada, south through eastern and southeastern Canada to portions of the Upper Midwest and northern portions of the Northeastern United States.