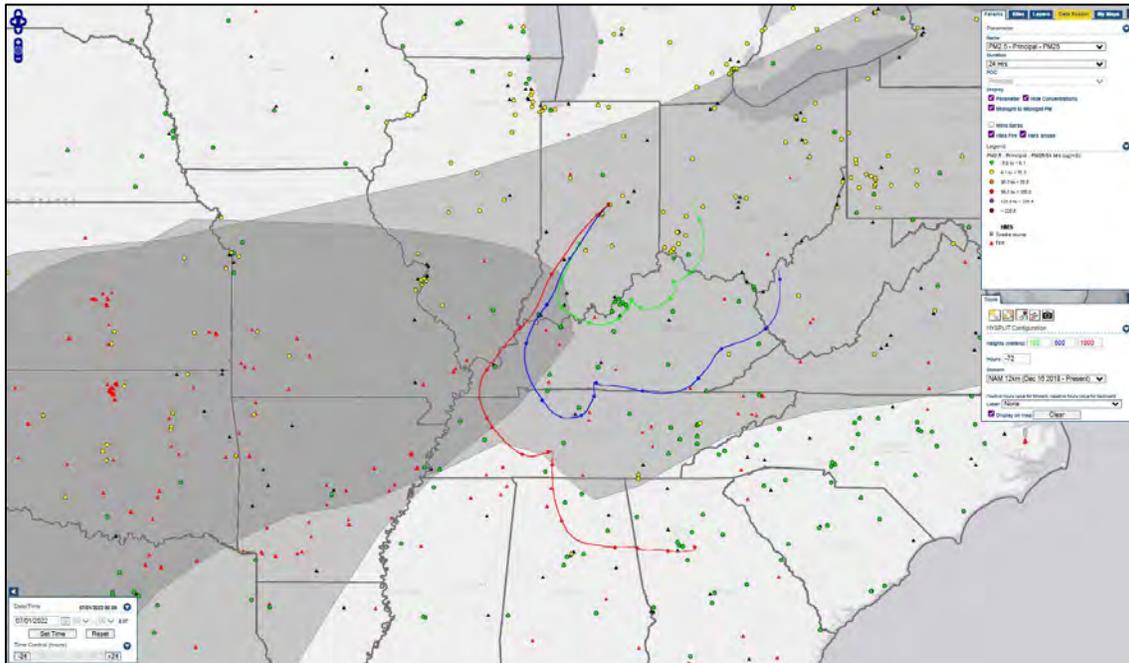


July 1, 2022

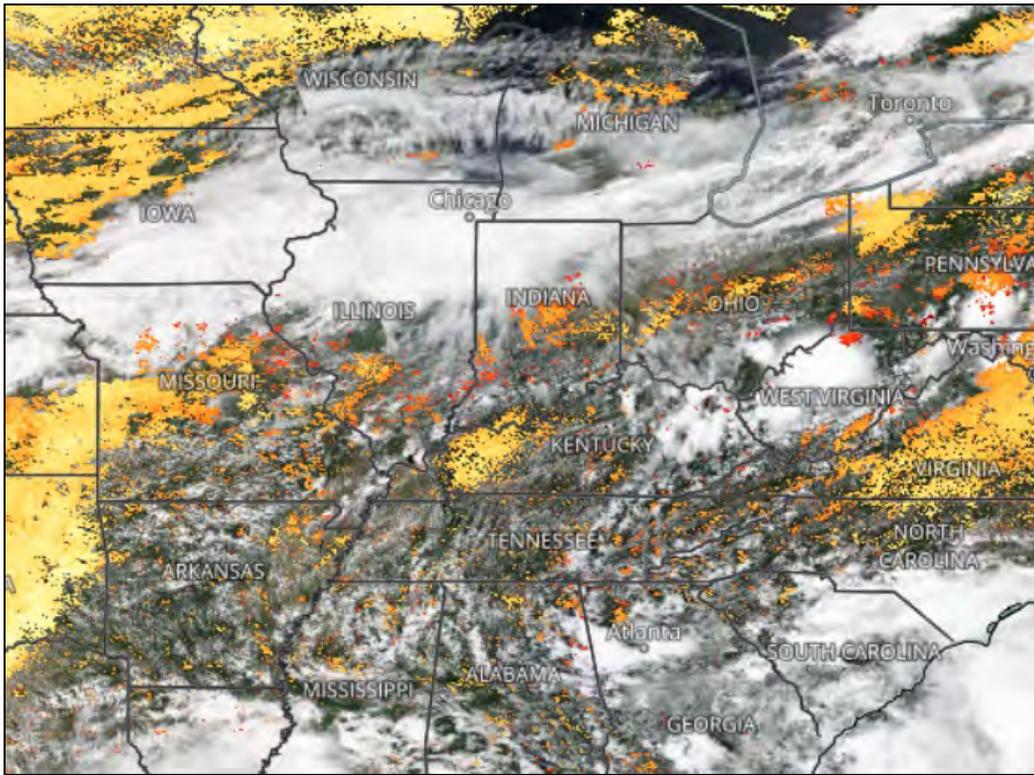
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Carmel - Hazel Dell Parkway	180570008	7/1/2022	20.6	16.5

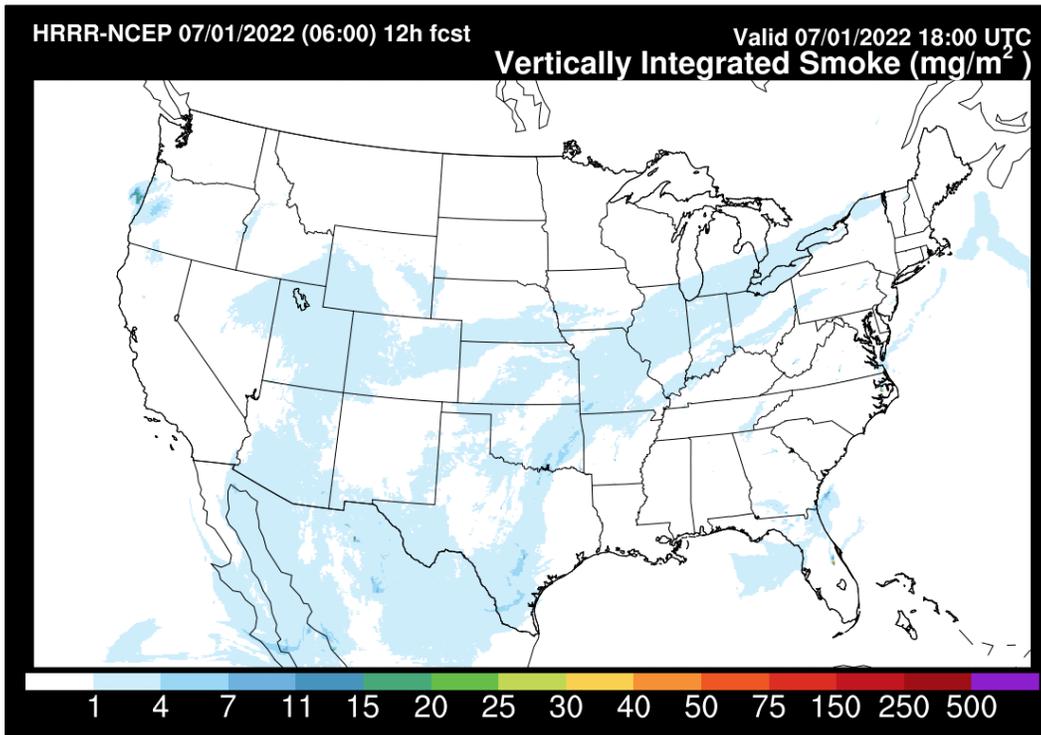
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 1, 2022



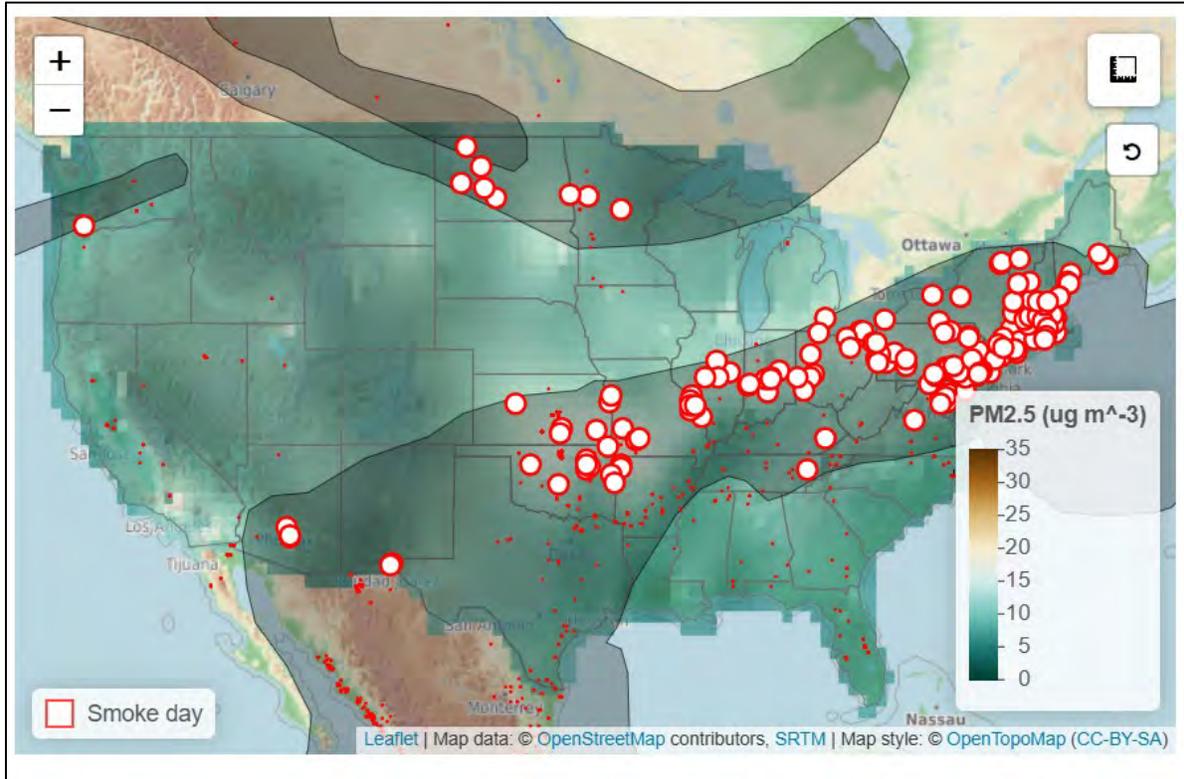
Satellite Imagery with MAIAC AOD - July 1, 2022



HRRR Smoke - Vertically Integrated Smoke - July 1, 2022



GAM PM₃ Smoke Output - July 1, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Thursday, June 30, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 0134Z July 1, 2022

SMOKE :

Eastern and Southeastern Mexico, Gulf of Mexico, Southern Plains, Central & Eastern United States, Atlantic south of Nova Scotia.
A large area of mostly light density smoke, from a combination of fire activity over the central and eastern United States, Mexico and contributions from the wildfires in Alaska and Western Canada was seen extending from portions of eastern and southeastern Mexico through the Gulf of Mexico northeast to the central and Eastern United States off the northeast Coast of the United States and into portions of the western Atlantic south of Nova Scotia.

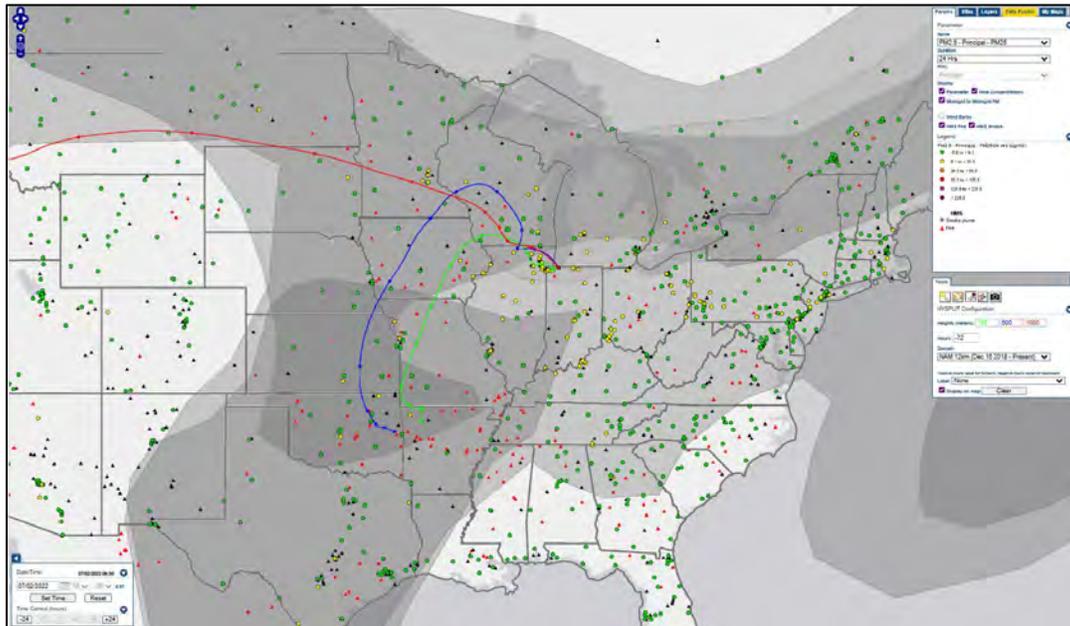
Eglin

July 2, 2022

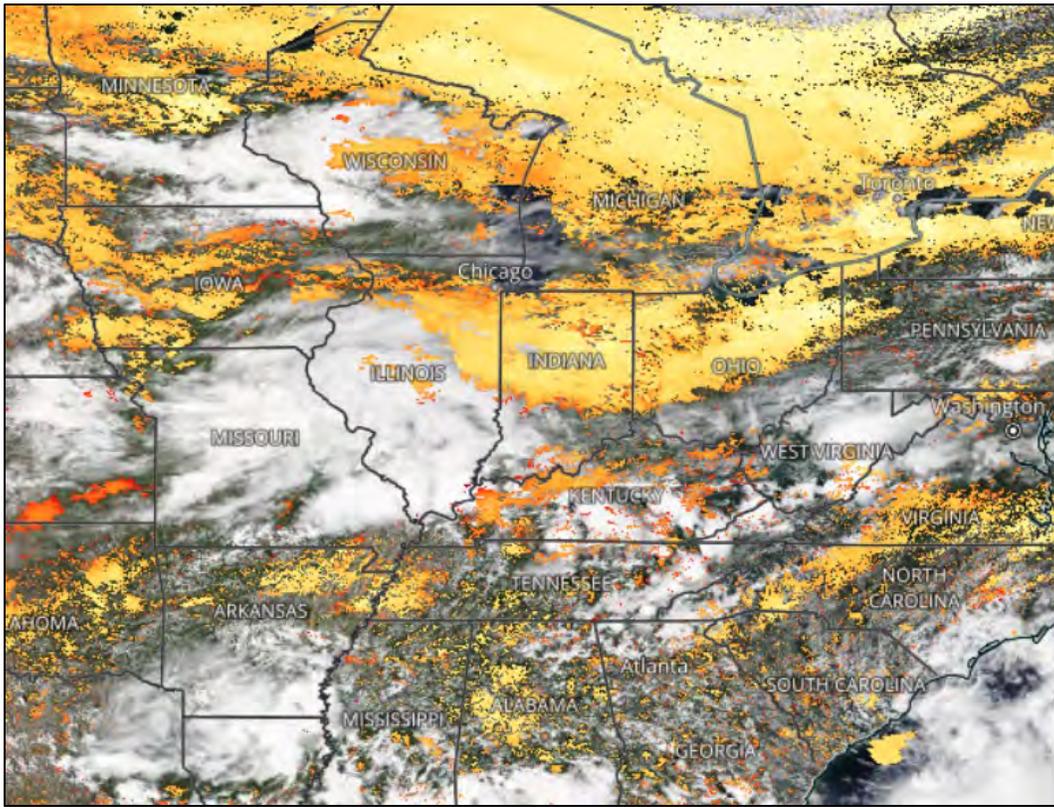
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Ogden Dunes	181270024	7/2/2022	16.7	15.3

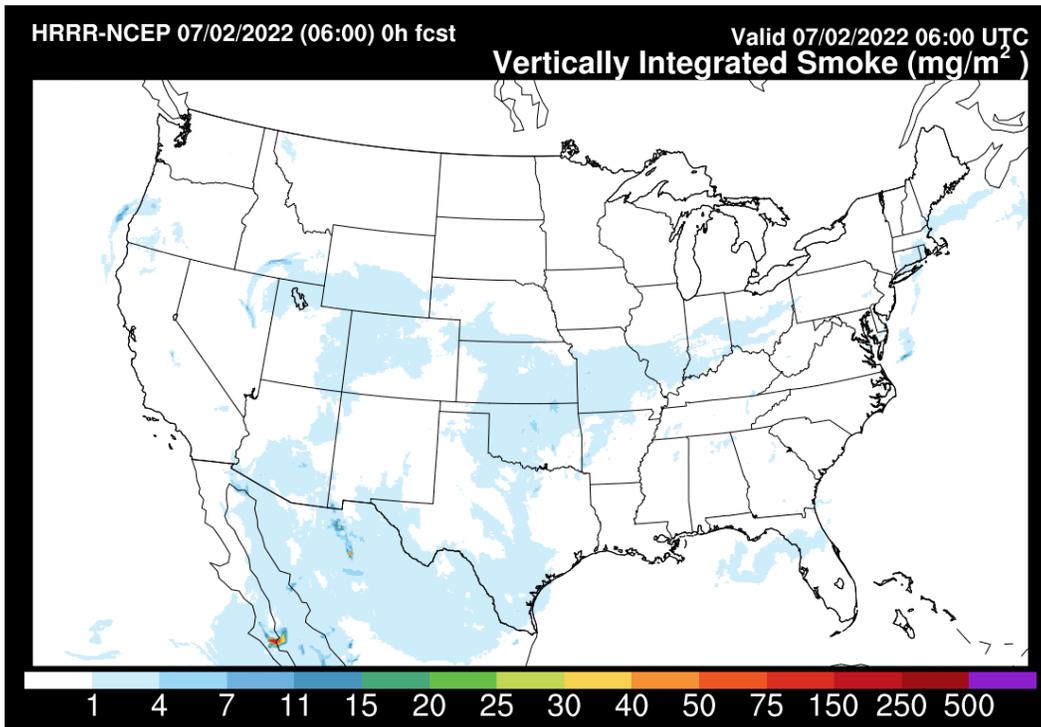
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 2, 2022

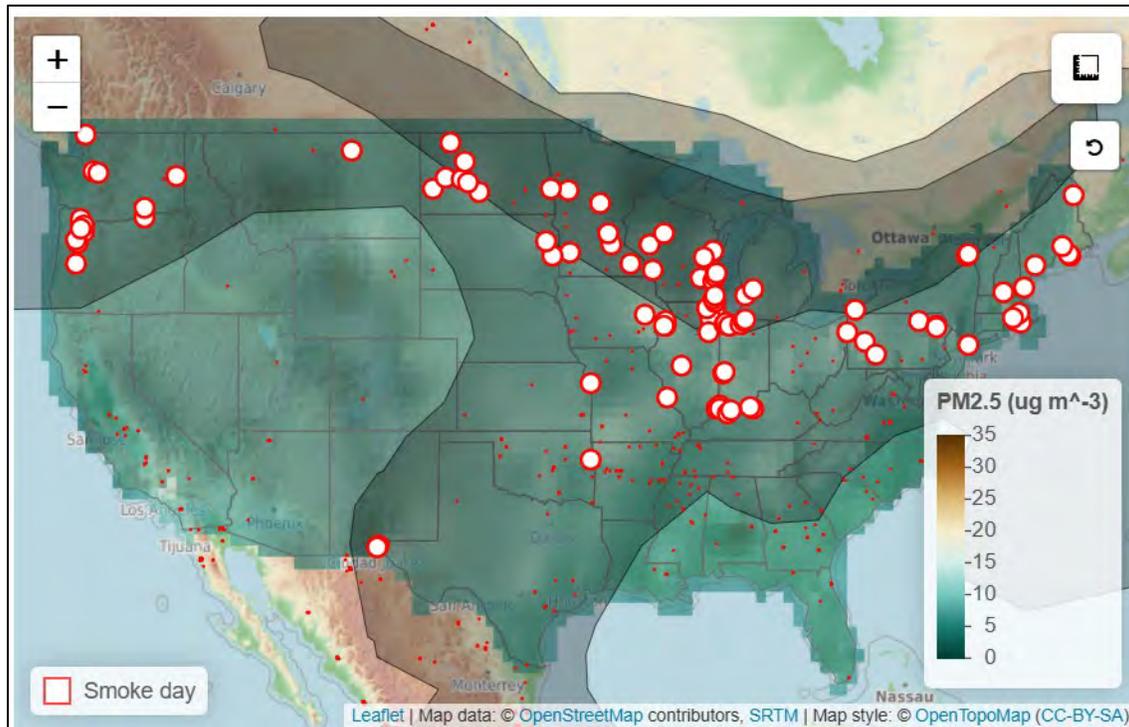


Satellite Imagery with MAIAC AOD - July 2, 2022



HRRR Smoke - Vertically Integrated Smoke - July 2, 2022



GAM PM₃ Smoke Output - July 2, 2022

NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Saturday, July 2, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z July 2, 2022

SMOKE :

Mexico, Western Gulf of Mexico, Central and Eastern United States... Another area of smoke, possibly mixed with other aerosol from gas flaring, was seen extending from the Yucatan Peninsula northwestward across the western gulf of Mexico and eastern Mexico into the Southern Plains. This area of smoke appears to merge with the area of smoke previously discussed across the Central Plains. The parent activity for this area of smoke is presumably agricultural burning in Mexico with possibly some contributions from remnant smoke entering from the north.

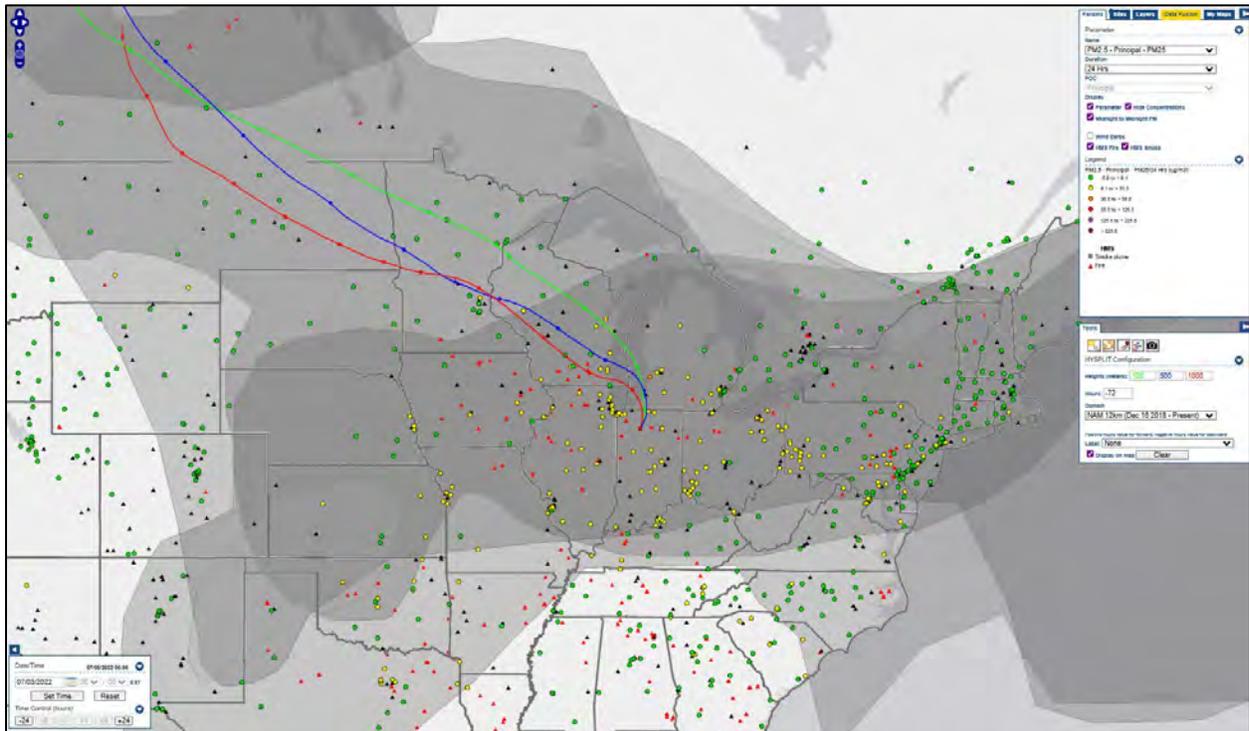
Hosley

July 3, 2022

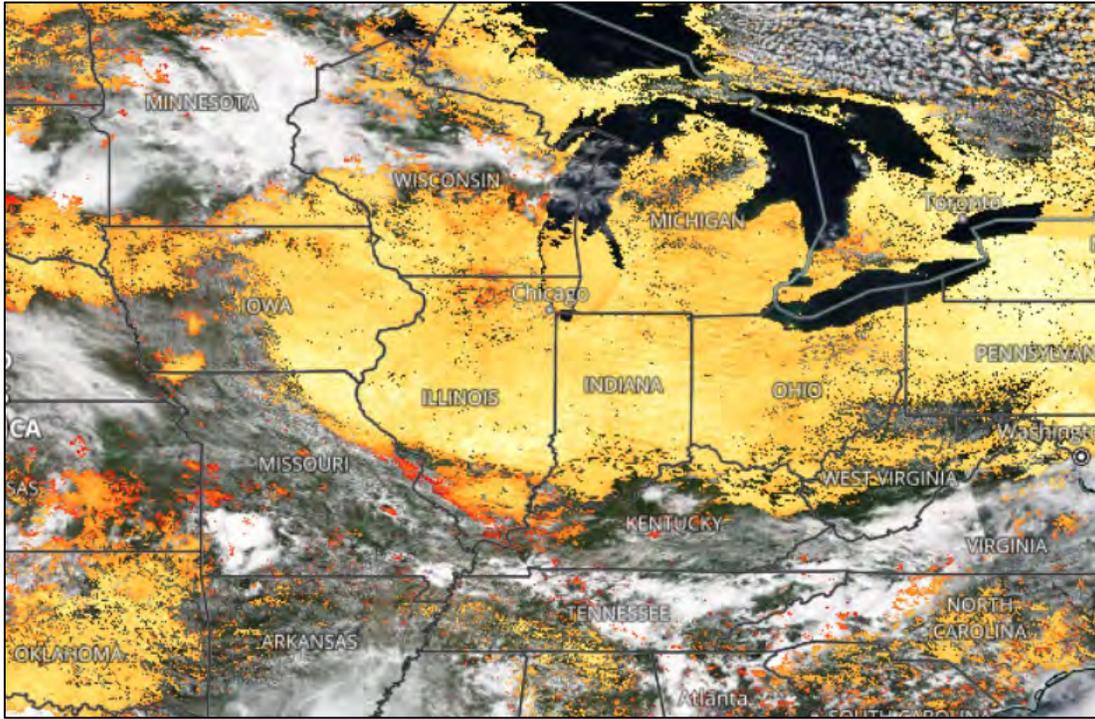
List of PM_{2.5} Monitoring Sites Impacted by Firework and Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Elkhart - Prairie St	180390008	7/3/2022	19.7	16.3
Hammond-167th St	180890036	7/3/2022	18.9	16.3
Indianapolis - W. 18th St.	180970081	7/3/2022	22.2	20.9
Ogden Dunes	181270024	7/3/2022	25.4	15.3
South Bend - Shields Dr.	181410015	7/3/2022	26.1	16.9
Terre Haute - Lafayette Ave	181670018	7/3/2022	33.8	18.8

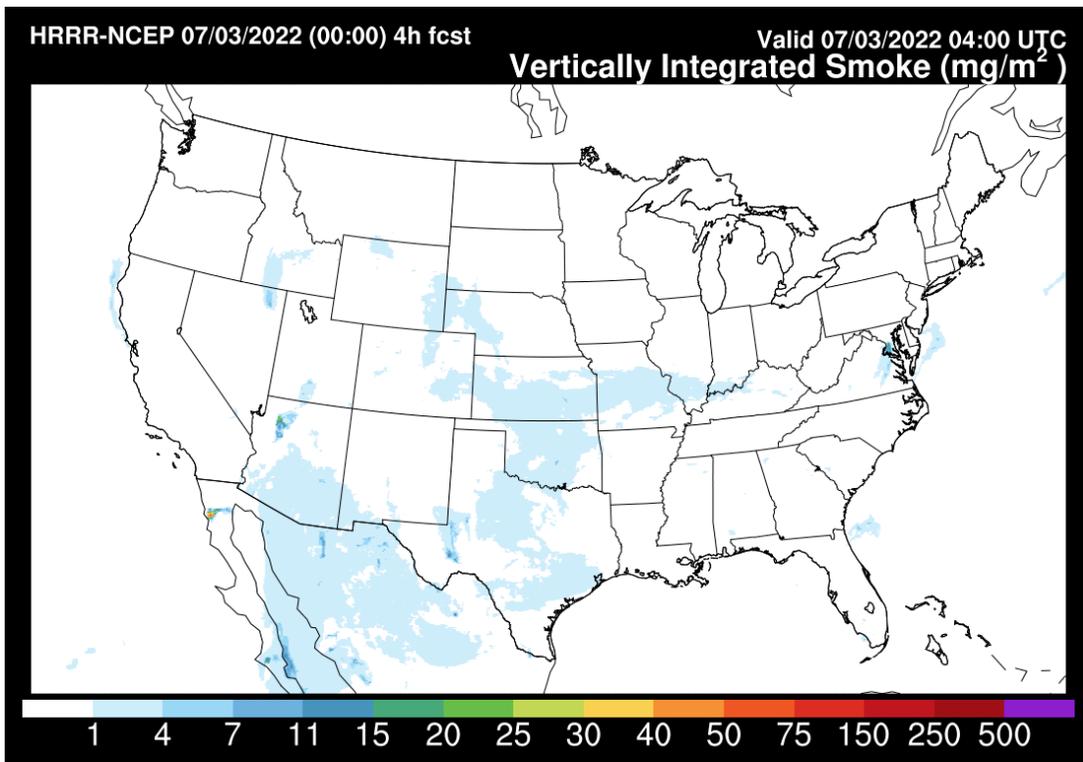
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 3, 2022

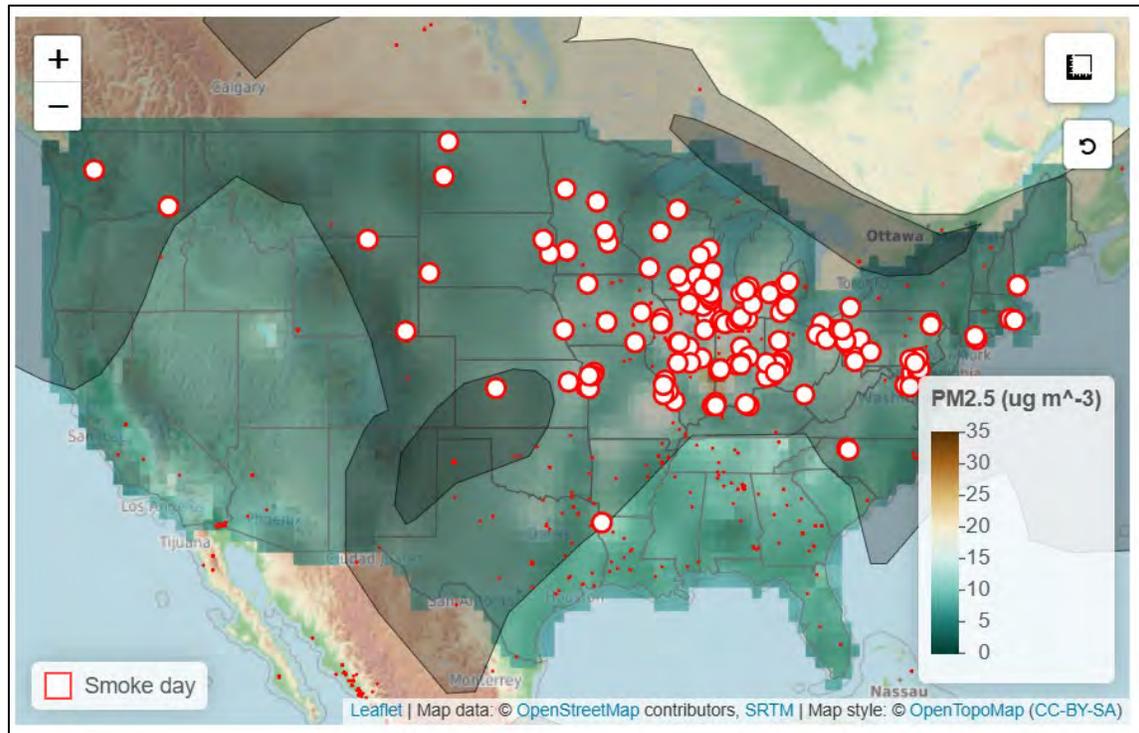


Satellite Imagery with MAIAC AOD - July 3, 2022



HRRR Smoke - Vertically Integrated Smoke - July 3, 2022



GAM PM₃ Smoke Output - July 3, 2022

NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Sunday, July 3, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z July 3, 2022

SMOKE :

Alaska/Arctic Ocean/Western & Central Canada/Central & Eastern CONUS/Maritime Canada/Atlantic Ocean...

Ongoing widespread wildfire activity in Central Alaska and northwestern Canada is responsible for an expansive area of varying density smoke that extends from central Alaska northwest and north out across the Arctic Ocean and then back south into the Yukon and Northwest Territory. From here, the smoke is moving westward back across the Northwest Territory and Yukon until it is either picked up by flow main flow dragging the majority of smoke east-southeast or moves southwest into British Columbia, from where the smoke is making it into the Gulf of Alaska before entering the Pacific Northwest. **Following the main stream east-southeast, the smoke then crosses into the southern Prairie Provinces, northern Plains, and Great Lakes.** The smoke then rounds the base of a trough over Quebec and moves east-northeast between the St. Lawrence River and the Mid-Atlantic, including New England and the Maritime Provinces. The smoke extends as far east out into the Atlantic as southern Greenland. The exact eastward extent is uncertain due to extensive cloud cover over much of the North Atlantic.

Northern Mexico/Southern & Central Plains..

Remnant thin to moderate smoke, likely with contributions from seasonal fire activity in Mexico and possibly Alaska (described above), was analyzed covering an area from northern Chihuahua and northern Coahuila northeast across Texas and Oklahoma and into Missouri and southern Indiana. It is possible this area of smoke could be merging with the larger area of smoke described above taking the upper jet crossing the Ohio River Valley and merging over the Mid-Atlantic.

Hosley

2022 Major Indiana Fireworks Displays:

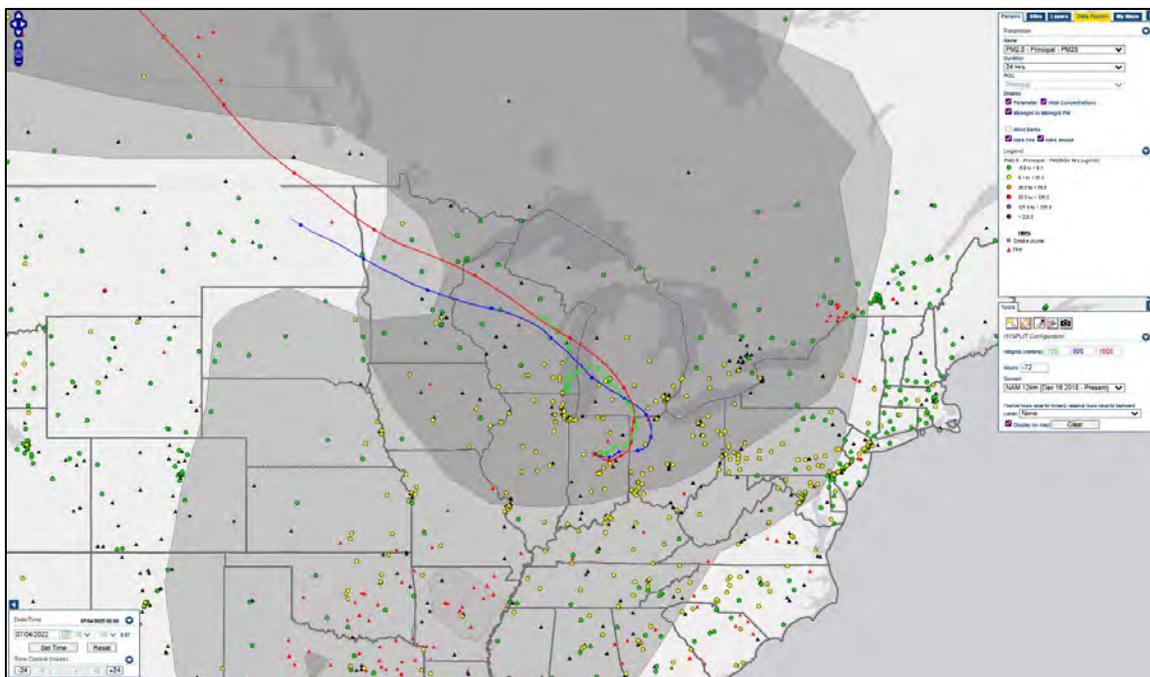
City	Event Name	2022 Date
Indianapolis	Downtown Indy Fourth Fest	July 4
Carmel	CarmelFest	July 3–4
Fishers	Spark!Fishers Fireworks	July 4
Noblesville	July 4th Parade & Fireworks Festival	July 4
Zionsville	Lions Park Fireworks	July 4
Cicero	Lights Over Morse Lake	July 4
Bloomington	Bryan Park Fireworks (canceled 2024)	July 4
Evansville	Fireworks on the Ohio	July 4
Fort Wayne	Downtown Fireworks at I&M Power Center	July 4
South Bend	St. Joseph County Fairgrounds	July 4
Jeffersonville	RiverStage Fireworks	July 4
Westfield	Rocks the 4th	July 4
Lawrence	Lawrence 4th Fest	July 4

July 4, 2022

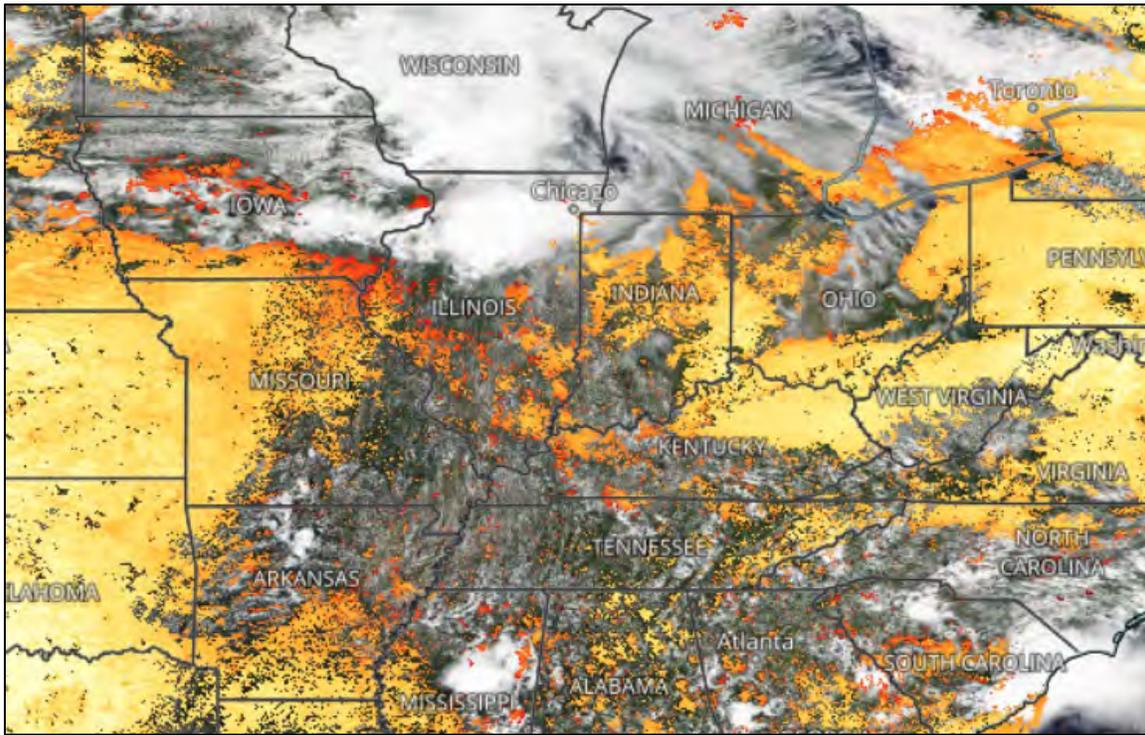
List of PM_{2.5} Monitoring Sites Impacted by Firework and Wildfire Smoke

Monitor name	AQS ID	Date	Daily average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Jeffersonville - Bates-Bowyer Ave	180190010	7/4/2022	21.5	17.0
Muncie - Central HS	180350006	7/4/2022	16.8	13.2
Elkhart - Prairie St	180390008	7/4/2022	24.1	16.3
Fishers	180570007	7/4/2022	17.3	13.8
Carmel - Hazel Dell Parkway	180570008	7/4/2022	21.9	16.5
East Chicago - Franklin/Washington Sch	180890006	7/4/2022	17.3	16.1
Gary - Madison St	180890031	7/4/2022	18.3	16.0
East Chicago - Marina	180890034	7/4/2022	18.9	18.0
Indianapolis - Washington Park	180970078	7/4/2022	23.1	17.8
Indianapolis - W. 18th St.	180970081	7/4/2022	30.8	20.9
Indianapolis - School 21	180970084	7/4/2022	21.2	15.5
Indianapolis - I-70 E	180970087	7/4/2022	21.9	20.5
South Bend - Shields Dr.	181410015	7/4/2022	23.0	16.9
Evansville - Buena Vista	181630021	7/4/2022	18.9	15.1
Terre Haute - Lafayette Ave	181670018	7/4/2022	20.5	18.8

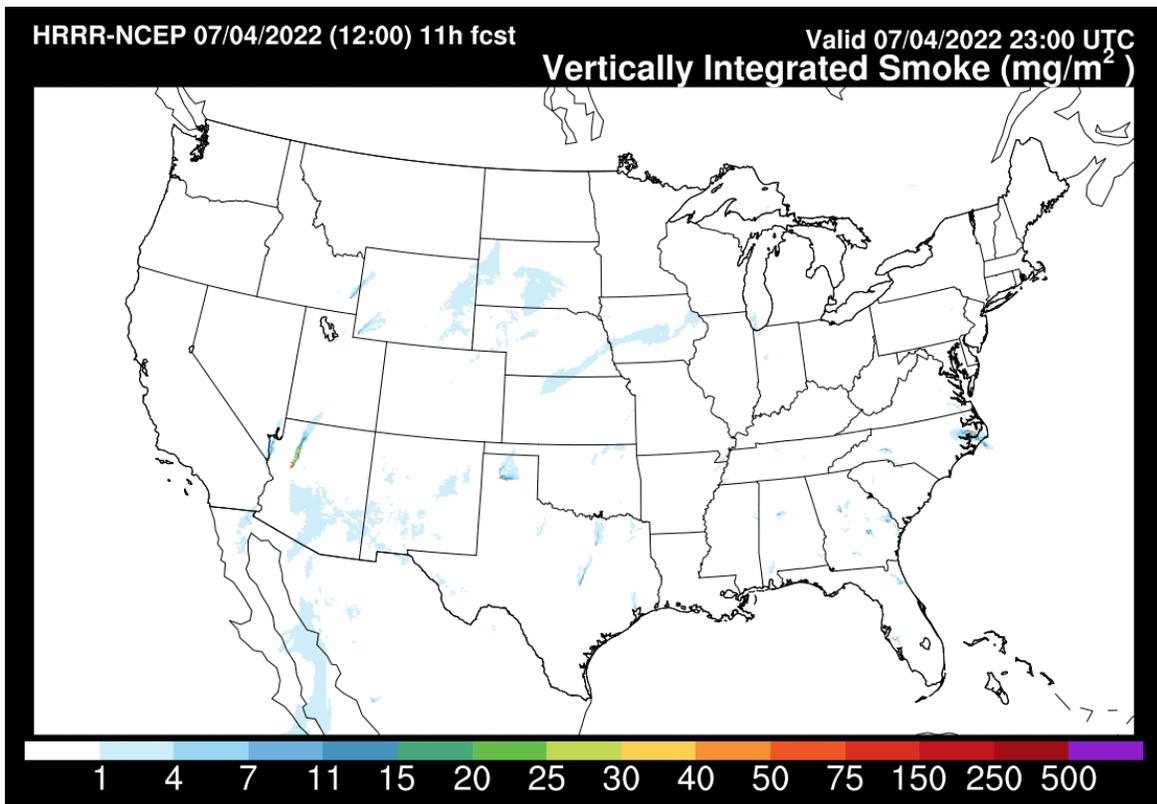
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 4, 2022

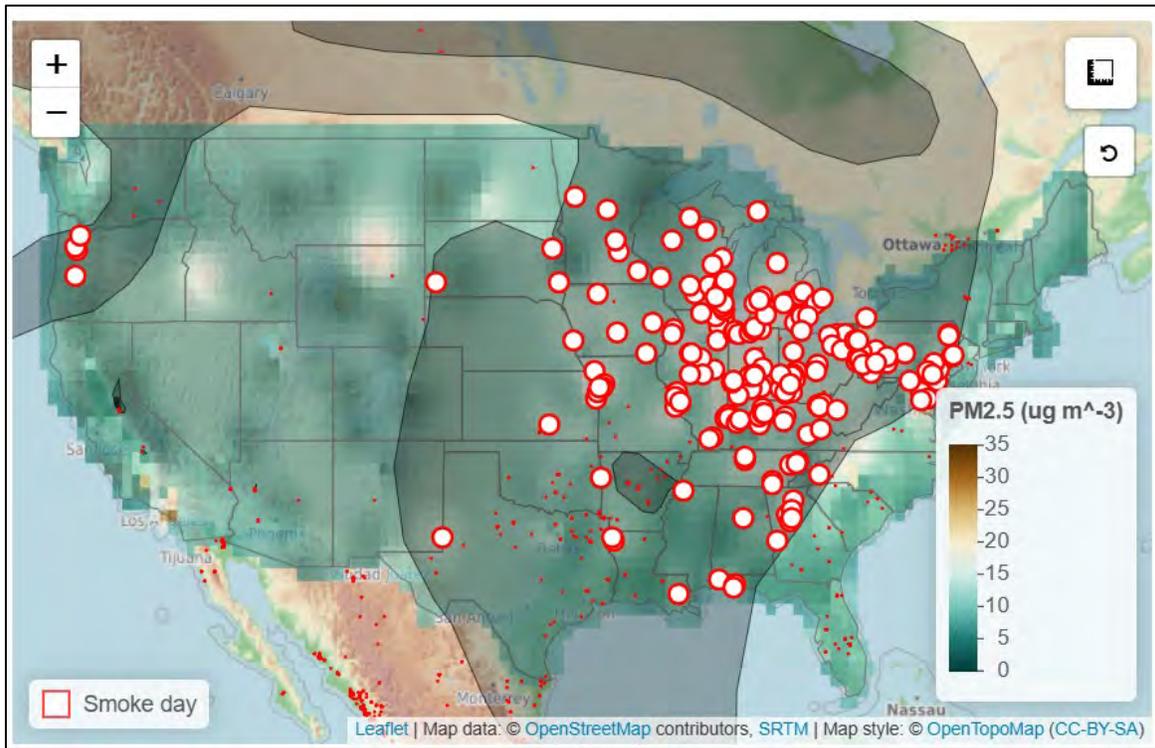


Satellite Imagery with MAIAC AOD - July 4, 2022



HRRR Smoke - Vertically Integrated Smoke - July 4, 2022



GAM PM₃ Smoke Output - July 4, 2022

NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Monday, July 4, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z July 4, 2022

SMOKE:

Western/Northern/Southern Canada, Central and Northern and Central U.S., Alaska:

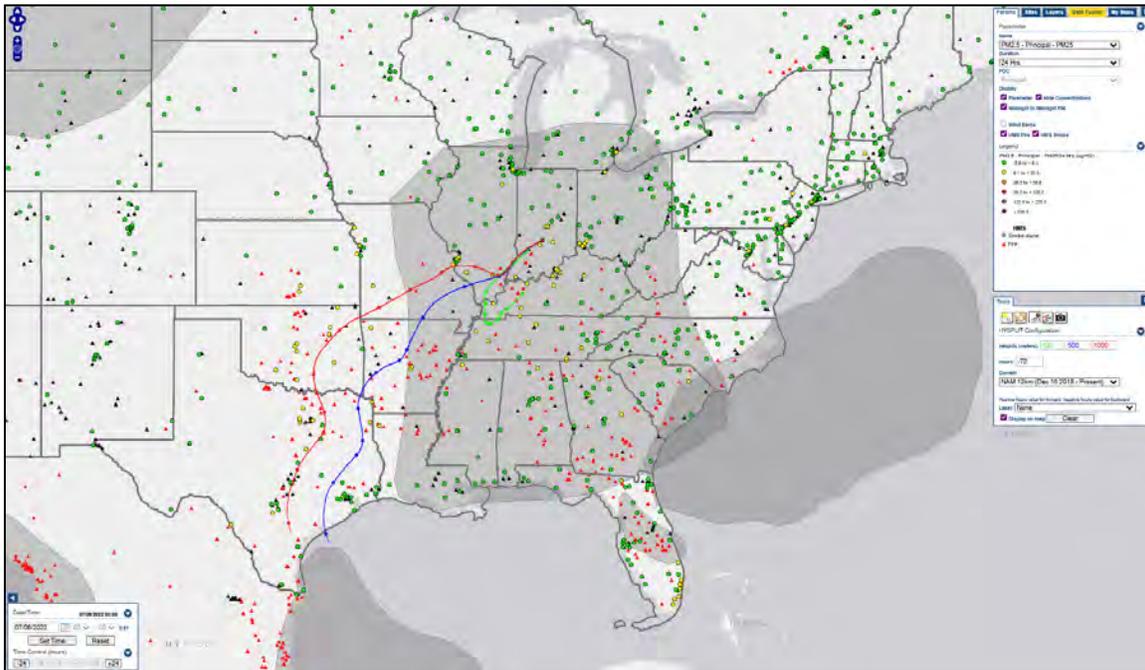
A large area of light density to dense smoke attributed mainly to the wildfires burning in portions of western and central Alaska and northwestern Canada, were seen stretching northeast from western Alaska through the Yukon, Northwest Territories, Nunavut and then extending southeast through northern/central British Columbia, most of Alberta, Saskatchewan, Manitoba, Ontario and into parts of western/central Quebec. The smoke continuing south and covered most of the Midwest U.S. with mostly light density smoke that moved as far south as northern Kentucky border. Seasonal fires from yesterday have added to this light density smoke in the central/eastern US. The smoke continues northeastward into the western sections of the northeast and will continue into the Mid-Atlantic later today. Within this area of lighter density smoke are areas of moderate density to dense smoke extending from the fire activity in western Alaska east into the Yukon and Northwest Territories. Thicker density can be seen over central Alaska. An additional area of moderately dense smoke can be seen over central Manitoba and stretching east into western/central Ontario. This is a narrow area.

July 6, 2022

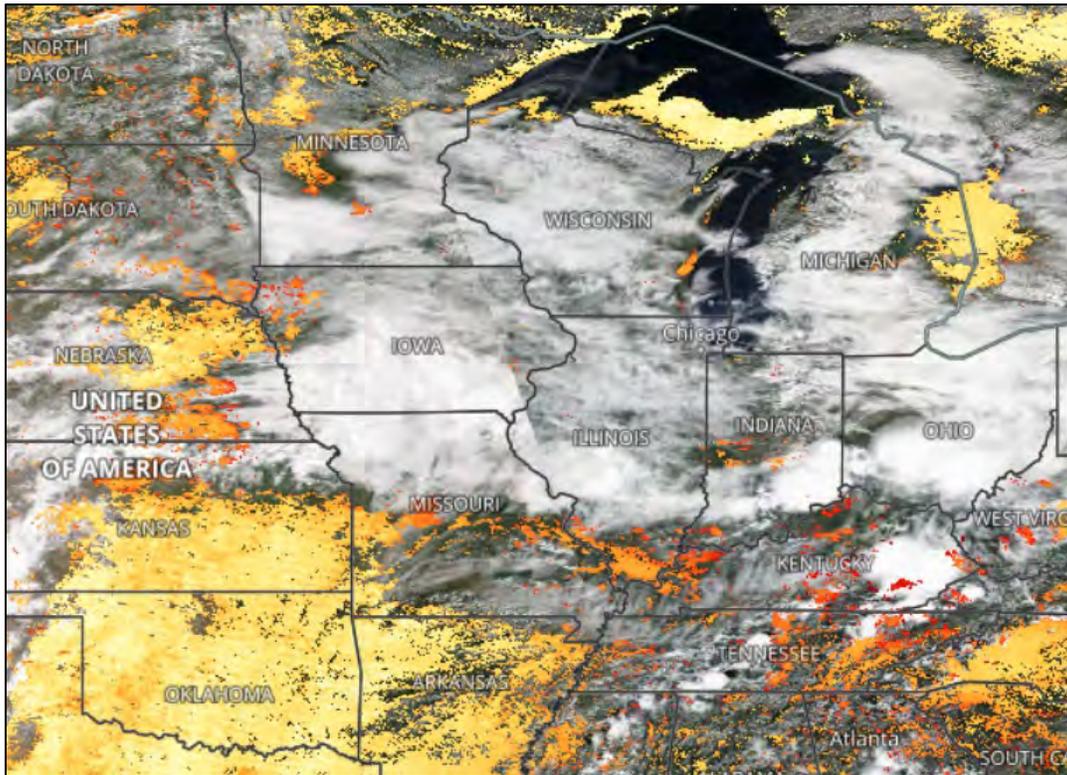
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Bloomington - Binford	181050003	7/6/2022	22.8	13.9

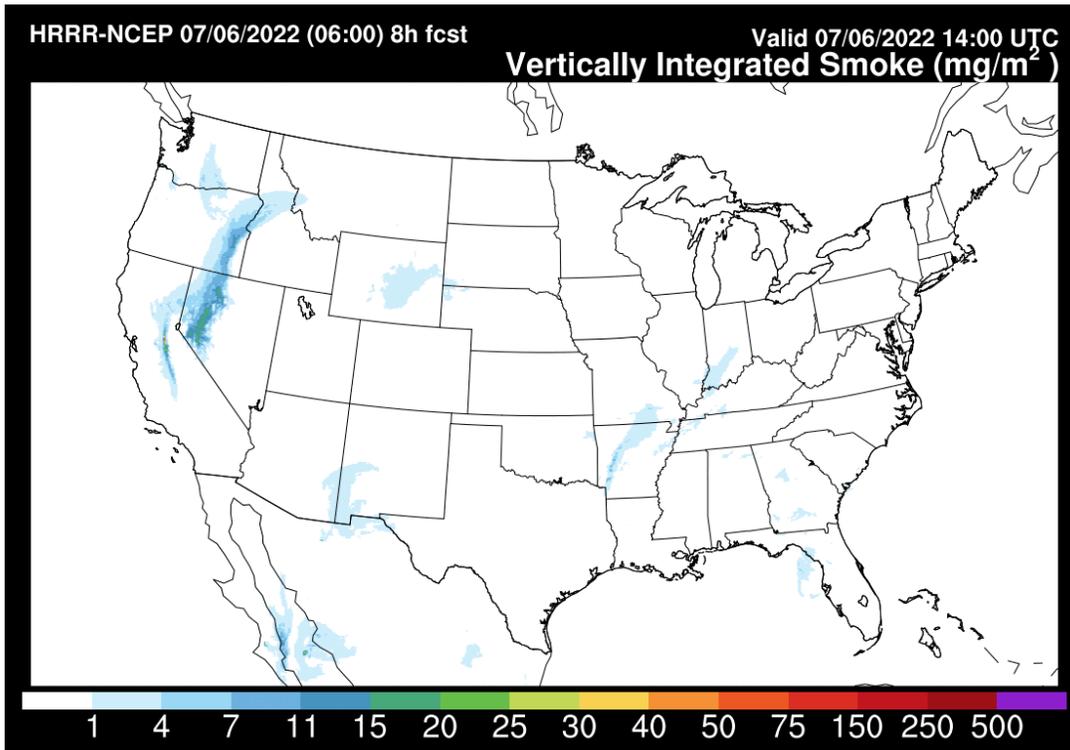
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 6, 2022

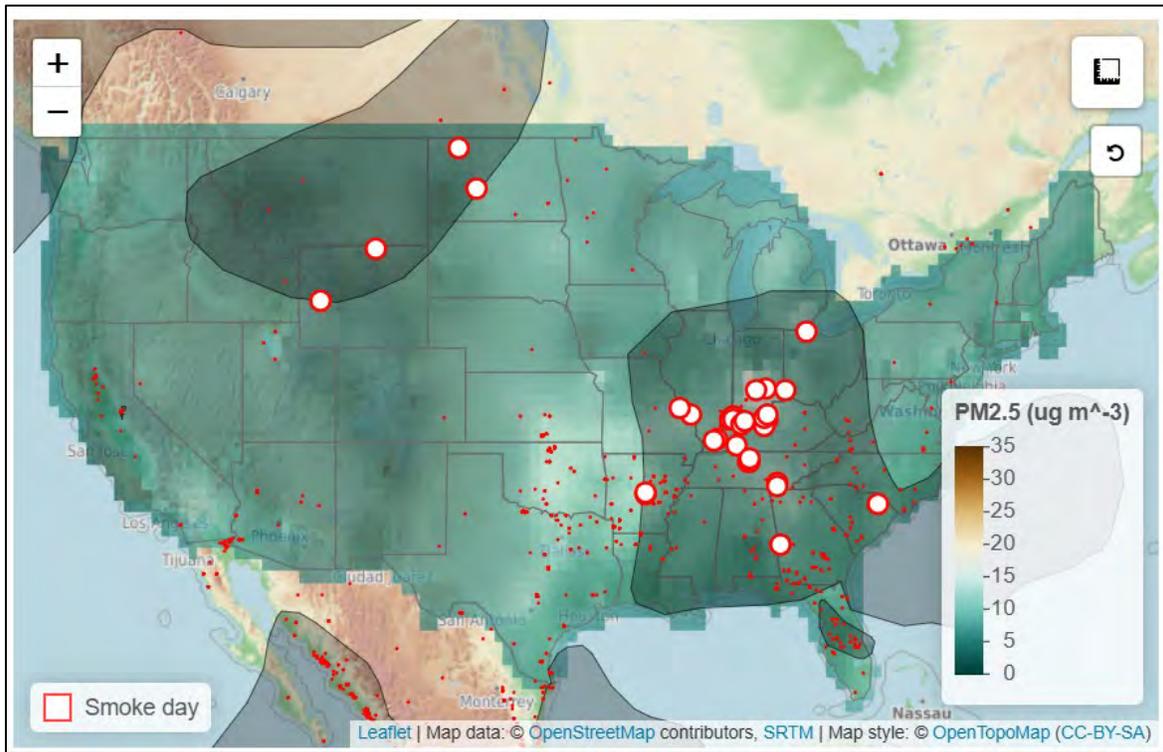


Satellite Imagery with MAIAC AOD - July 6, 2022



HRRR Smoke - Vertically Integrated Smoke - July 6, 2022



GAM PM₃ Smoke Output - July 6, 2022

NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Wednesday, July 6, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z July 6, 2022

SMOKE :

Alaska/Northern and Western Canada/Gulf of Alaska:

An expansive area of varying density smoke was produced from intensive wildfires across Alaska, the Yukon, and the Northwest Territory. The smoke was observed extending from Alaska across the Arctic Ocean and settling south and east over Nunavut and the Northwest Territory. Some of this smoke was being drawn south across northwestern Saskatchewan, northern Alberta, and northern British Columbia before re-entering Alaska and the Gulf of Alaska. One stream of thicker smoke was also being drawn east-southeast across extreme northeastern Manitoba, Hudson Bay, extreme northern Ontario, and northwestern Quebec. The exact extent of this stream is uncertain due to cloud cover obscuring the leading edge. Remnant smoke was also observed over the Intermountain West into the northern Plains, the southeastern CONUS and Ohio Valley, and over the North Atlantic, arcing from just offshore of northern Nova Scotia to the southern tip of Greenland.

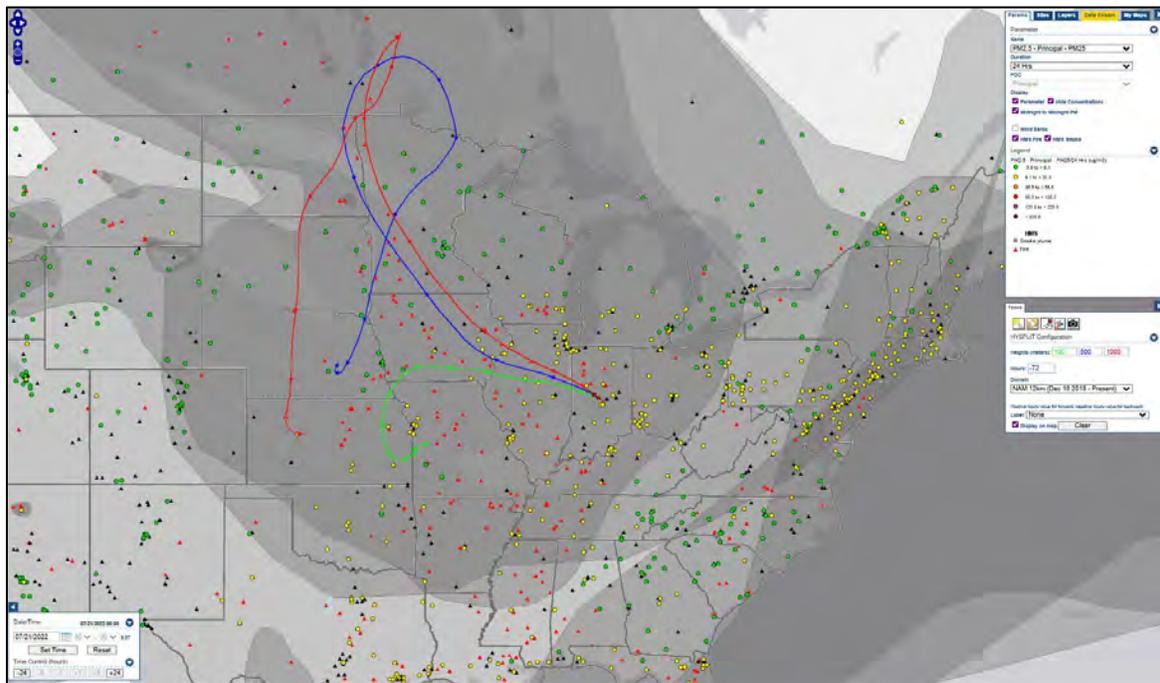
Hosley

July 21, 2022

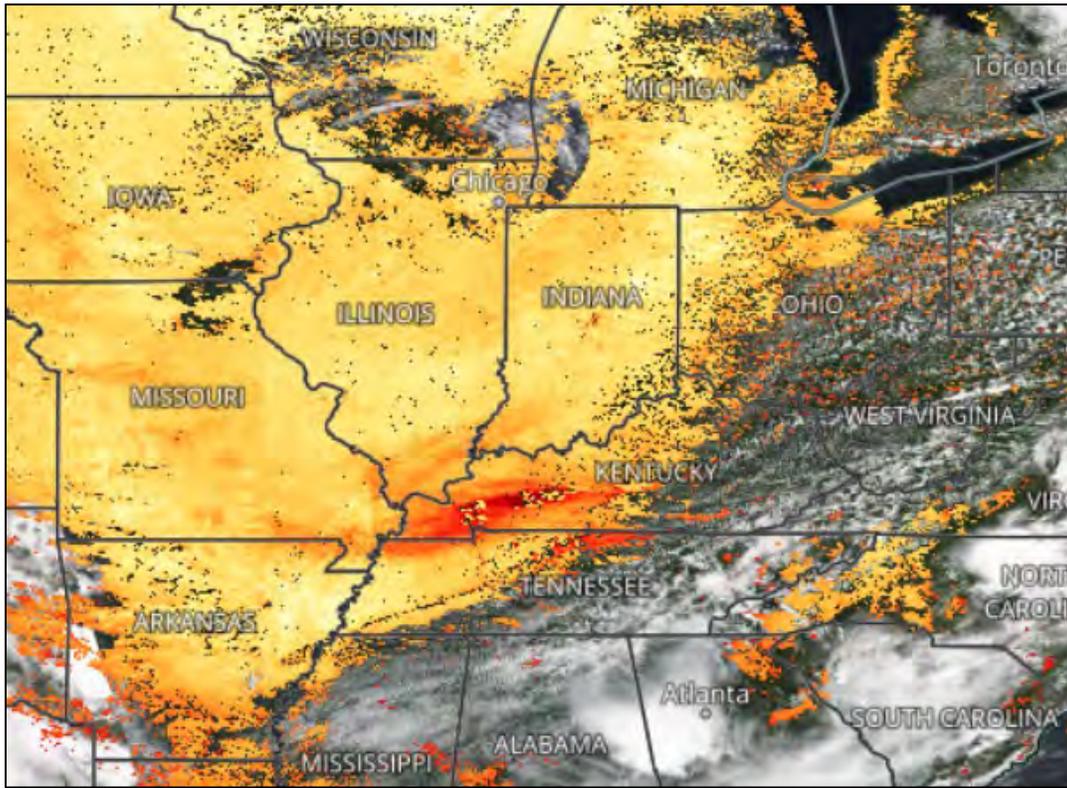
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Carmel - Hazel Dell Parkway	180570008	7/21/2022	25.6	16.5
Anderson - Eastside Elem	180950011	7/21/2022	17.0	15.4
Evansville - Buena Vista	181630021	7/21/2022	20.2	15.1
Larwill	181830003	7/21/2022	16.6	15.0

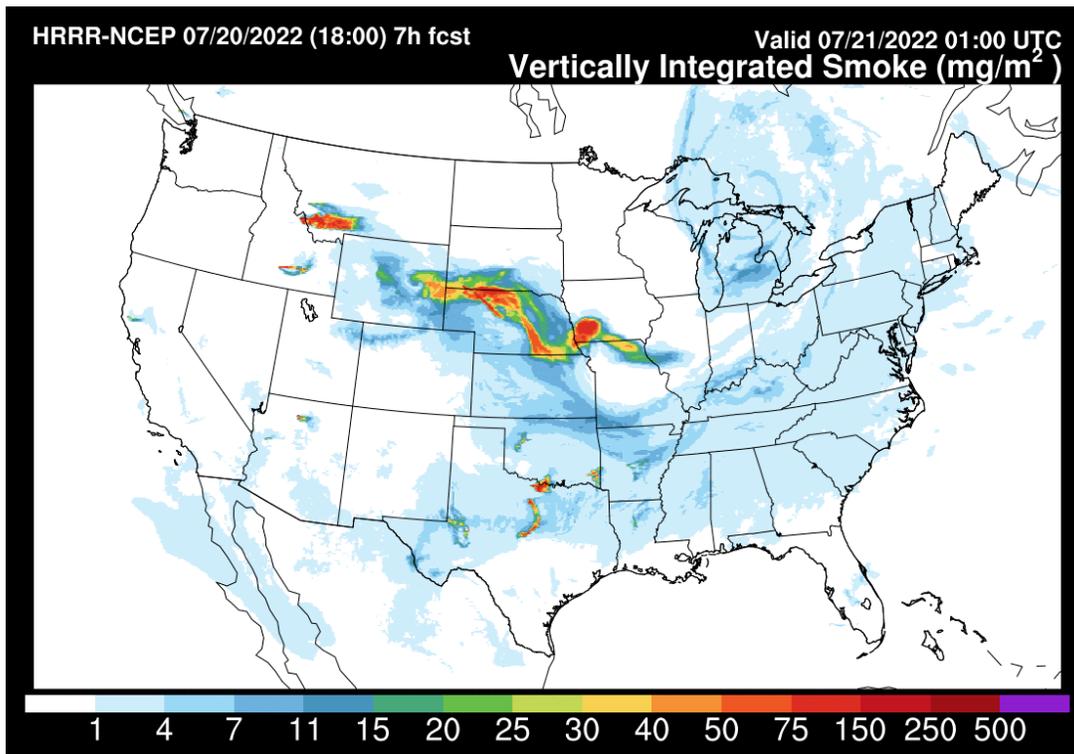
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 21, 2022



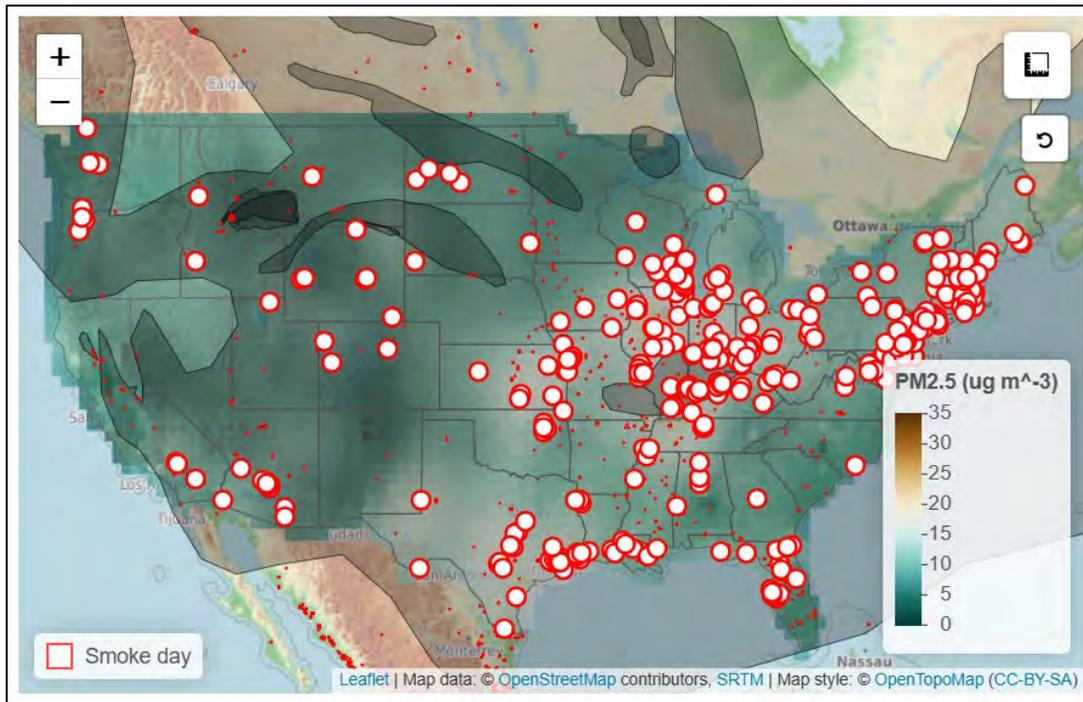
Satellite Imagery with MAIAC AOD - July 21, 2022



HRRR Smoke - Vertically Integrated Smoke - July 21, 2022



GAM PMO3 Smoke Output - July 21, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Thursday, July 21, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1715Z July 21, 2022

SMOKE:

South-Central Canada/Northern Quebec/Idaho/U.S. Great Plains, Midwest, Eastern Coast/Western Atlantic...

A large plume dominates most of Alberta, south-central Saskatchewan and Manitoba, and western Ontario, while extending south over the Great Plains and the U.S. Midwest, and to the east along the eastern U.S. coastline and further out for more than 1,500 miles over the western Atlantic. Significant cloud coverage along the eastern U.S. creates some separation between the western and eastern sides of that major plume. The Pine Peak fire in eastern Idaho remains active producing a moderate-to-heavy density smoke plume that stretches to the east across the northern Great Plains leading to narrow pockets of moderate-density being visible across southern Montana, South Dakota, in addition to southeastern Missouri, southern Illinois, and southern Indiana. Additional pockets of moderate density smoke linked to previous days wildfire emissions in central Canada were observed across southern Saskatchewan and western Ontario. A detached plume was also observed over northern Quebec, which was also linked to previous days wildfire activity in central Canada.

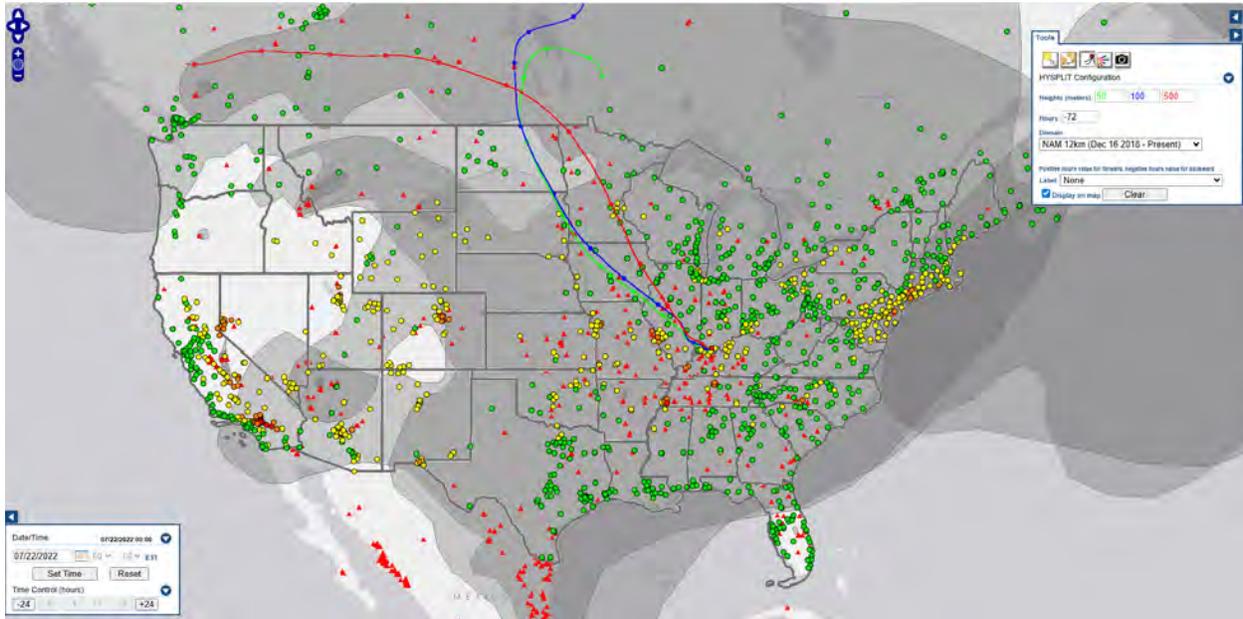
WS

July 22, 2022

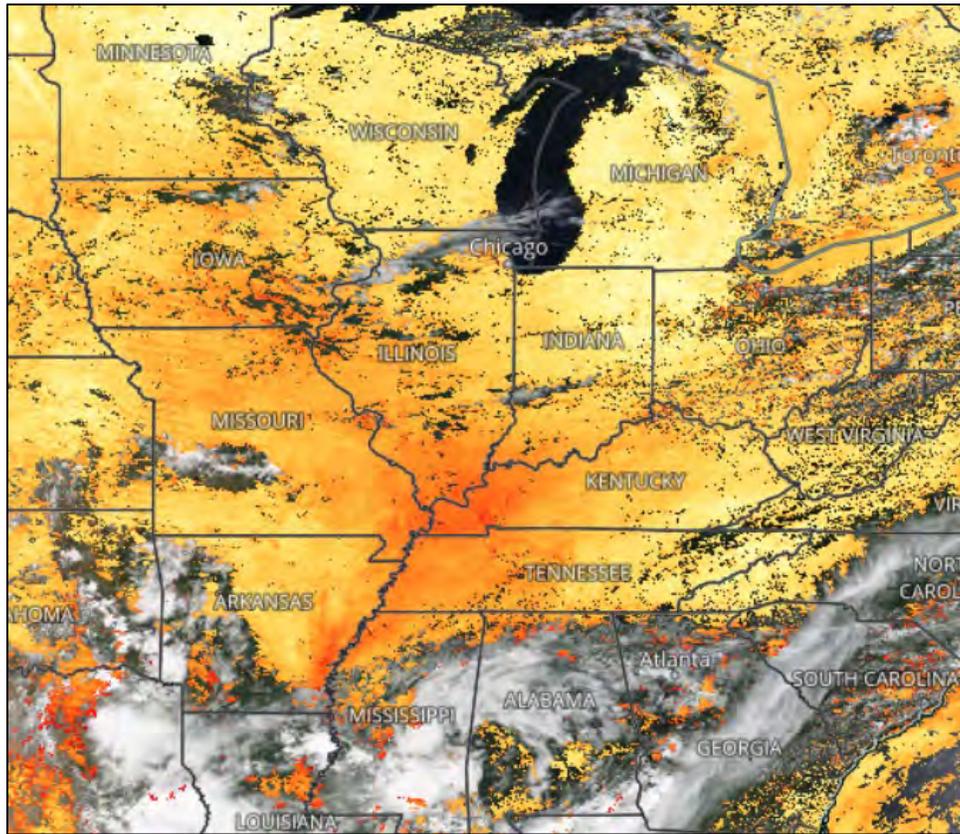
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Jeffersonville - Bates-Bowyer Ave	180190010	7/22/2022	20.0	17.0
Jasper - Post Office	180372001	7/22/2022	21.0	15.7
Carmel - Hazel Dell Parkway	180570008	7/22/2022	17.6	16.5
Dale	181470009	7/22/2022	23.3	13.9
Evansville - U of E	181630016	7/22/2022	23.0	15.5
Evansville - Buena Vista	181630021	7/22/2022	25.6	15.1

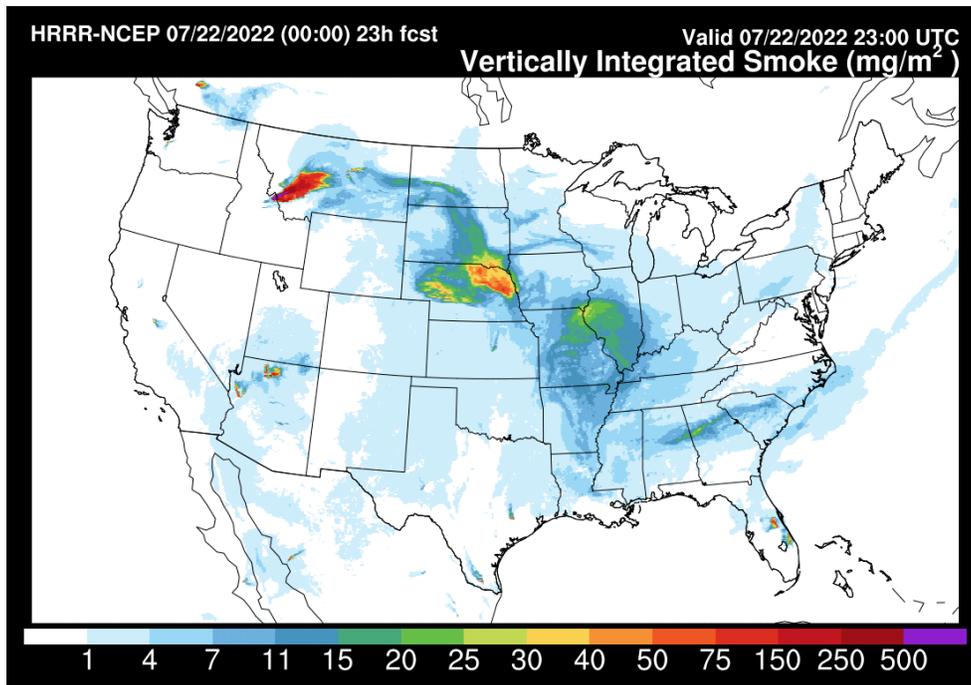
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 22, 2022



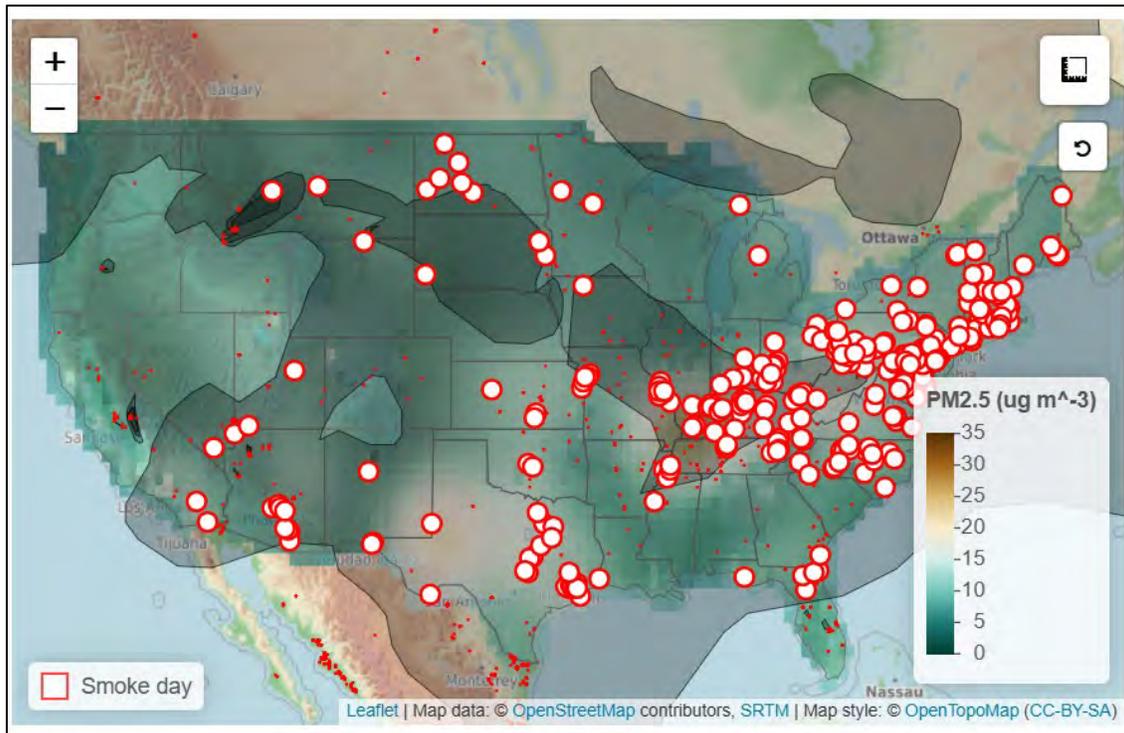
Satellite Imagery with MAIAC AOD - July 22, 2022



HRRR Smoke - Vertically Integrated Smoke - July 22, 2022



GAM PMO3 Smoke Output - July 22, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Thursday, July 21, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 0300Z July 22, 2022

SMOKE:

Much of Canada, the CONUS, and the Gulf of Mexico/northern Mexico/North Atlantic...

An expansive area of varying density smoke was analyzed from the southwestern Northwest Territory and Alberta south to northern Mexico and the Gulf of Mexico and east into the north Atlantic. The parent activity for much of this smoke is the active fires across northern Alberta, northern Saskatchewan, and the southern Northwest Territory. From the parent activity, the heaviest observable smoke was moving east-southeast across the much of Alberta, southern and central Saskatchewan, southern Manitoba, and into Ontario. From here, some of the smoke was getting caught up in a low pressure system over northern Manitoba, where the smoke was drawn northward. The smoke was not directly seen over portions of northern Manitoba, far northern Ontario, and Hudson Bay due to extensive cloud cover, but moderate density smoke was observed extending northward out from beneath the cloud cover. The moderate smoke then bifurcated into a west to west-southwestward moving portion over southeastern Nunavut and far southeastern Northwest Territory and an eastward moving portion across the rest of southern Nunavut, northern Hudson Bay, and into northern Quebec.

The southern portion of this large area of smoke over the CONUS is

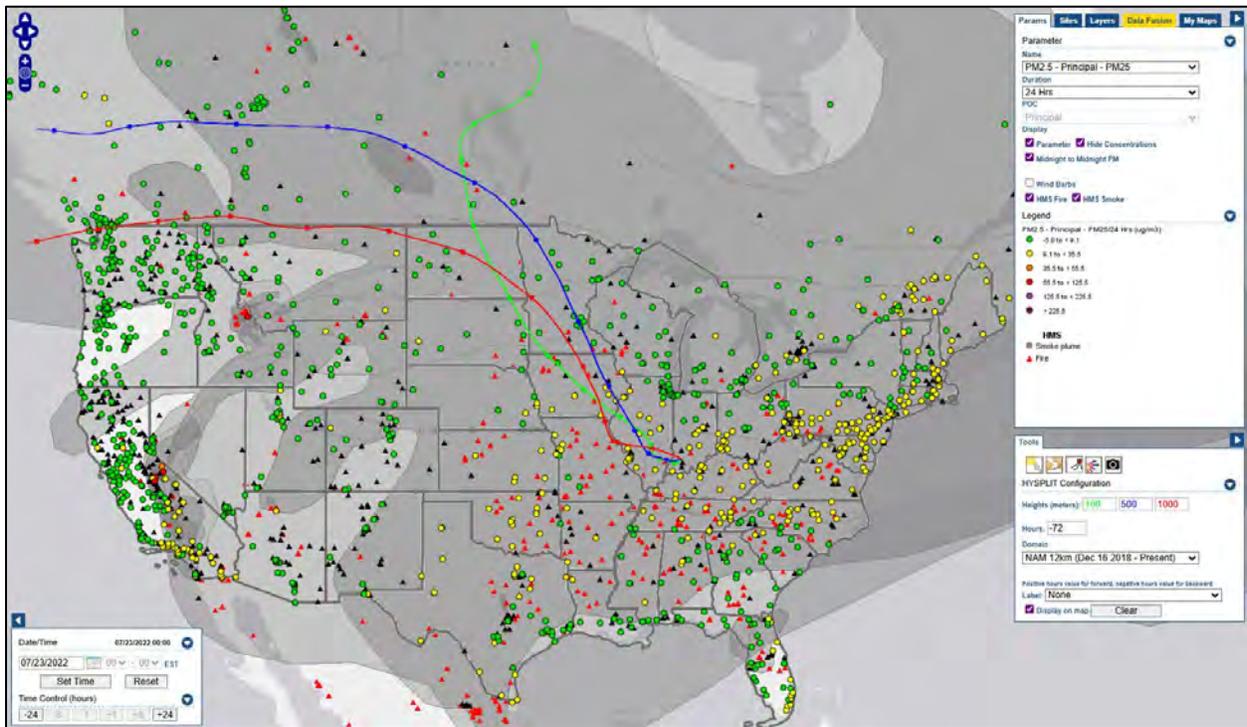
likely also due in part to remnant smoke from wildfire activity in the western CONUS. Smoke extending from the Pacific Northwest around the monsoon flow towards the central Plains and Front Range and across the desert southwest. From the northern and central Plains eastward, the contributions are likely from both sources, with the Canadian smoke more dominant. The smoke is clearly seen from the Dakotas into Kansas and Missouri extending eastward across the Ohio and Tennessee valleys into the Great Lakes and southern Ontario. Thinner smoke can be seen extending as far south as the western Gulf of Mexico and central Florida, from where smoke is drawn northeastward ahead of a frontal system over the open north Atlantic and perhaps Maritime Canada. Another area of light remnant smoke was seen moving south over far northern Canada, with more light smoke seen north and west of Alaska. The source for these areas could be wildfires across Siberia or could be remnant from past wildfire activity in Alaska and northern Canada.

July 23, 2022

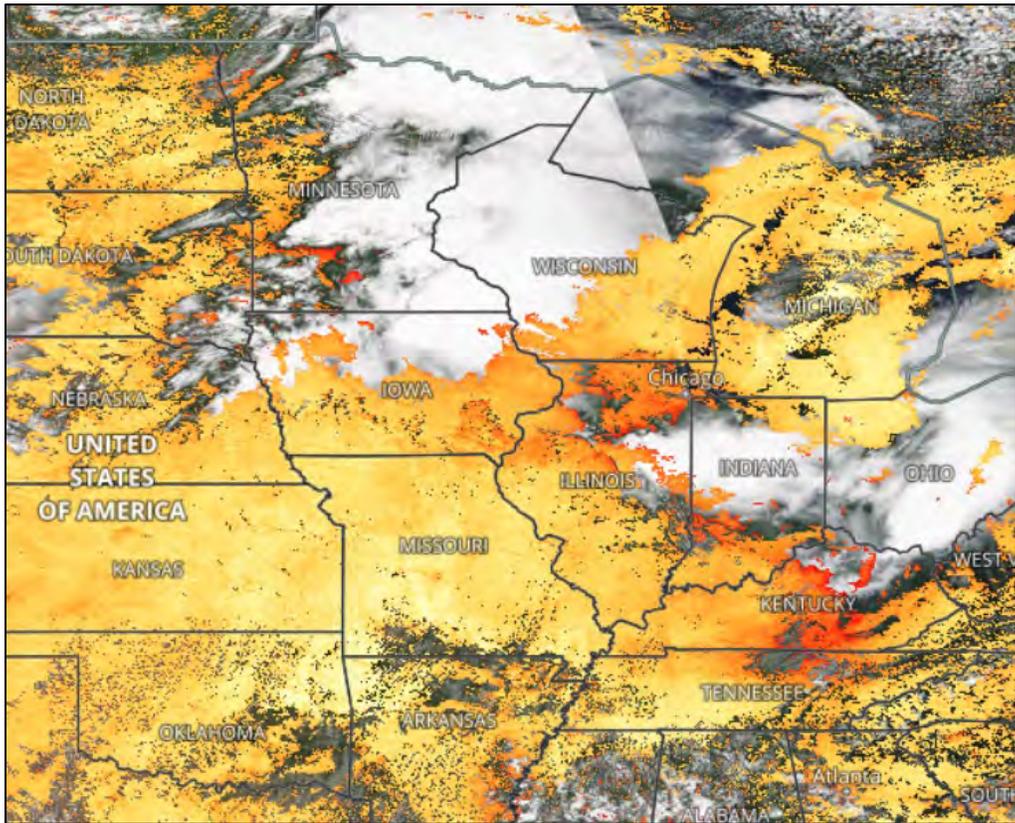
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Jeffersonville - Bates-Bowyer Ave	180190010	7/23/2022	19.6	17.0
Jasper - Post Office	180372001	7/23/2022	20.2	15.7
Evansville - Buena Vista	181630021	7/23/2022	19.7	15.1

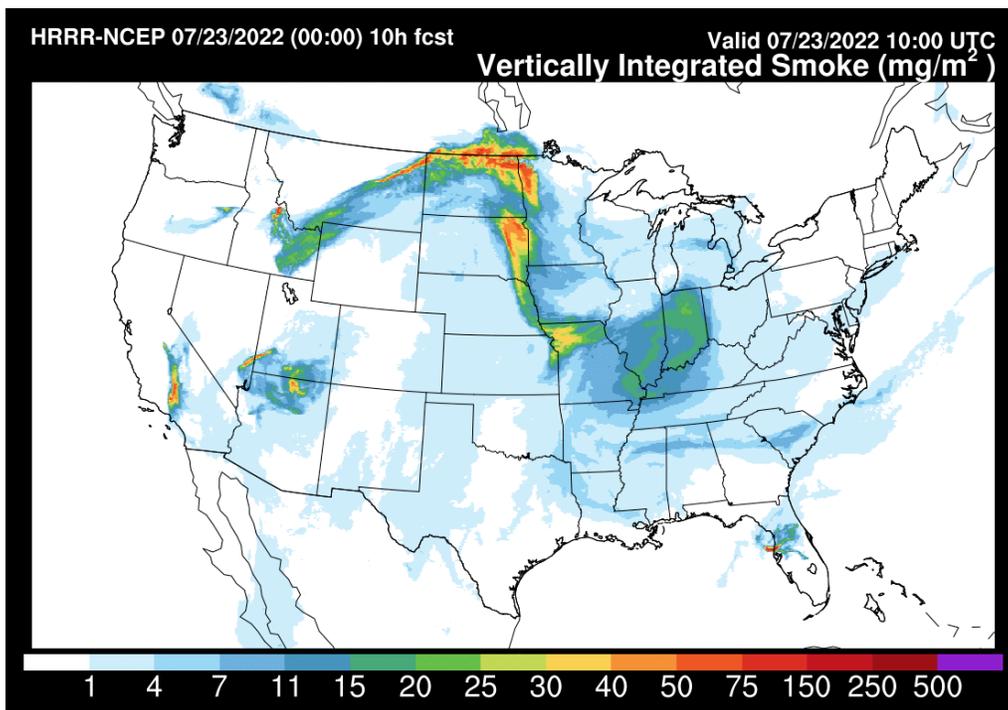
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - July 23, 2022



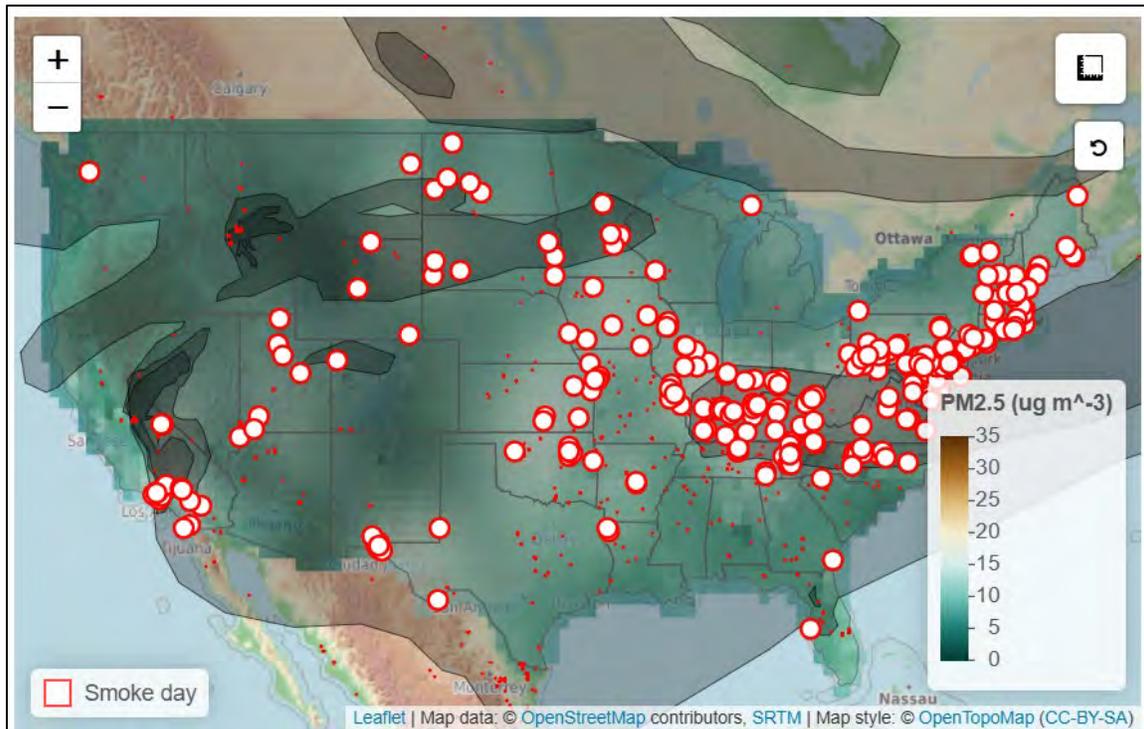
Satellite Imagery with MAIAC AOD - July 23, 2022



HRRR Smoke - Vertically Integrated Smoke - July 23, 2022



GAM PMO3 Smoke Output - July 23, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Saturday, July 23, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z July 23, 2022

SMOKE:

Much of Canada/Central and Eastern United States/Northern Mexico/Atlantic Ocean...

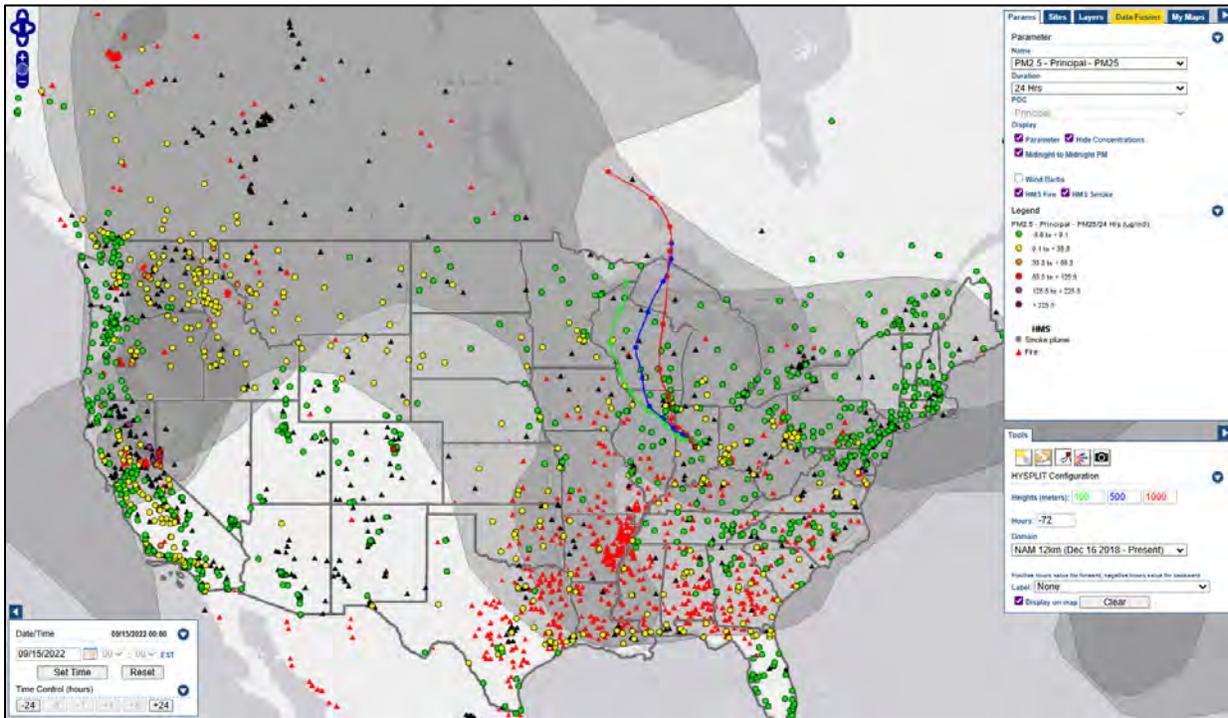
Very large coverage of mainly thinner density smoke was again seen this morning across much of Canada with the exceptions of far western Canada, a portion of northwestern Canada, and a part of Hudson Bay along with a sliver of eastern Canada. The smoke also was prevalent over virtually all of the central and eastern U.S. and over a portion of northern Mexico. In addition, the smoke extended offshore of the U.S. and well out across the central and northern Atlantic. A good amount of this smoke was likely from recent significant wildfire activity in central and northwestern Canada though some contribution from a few of the larger wildfires in the western U.S. was likely occurring especially from portions of the western U.S. to the central U.S. Within the larger mass of thin density smoke were embedded patches of moderate density smoke which were seen over Kentucky and Tennessee and over northern Ontario in Canada. Farther to the west, and much closer to some of the recent and currently active wildfires were batches of moderate to thick density smoke which were seen over eastern Alberta and western and central Saskatchewan, and over the southwest part of the Northwest Territories and northwestern Alberta.

September 15, 2022

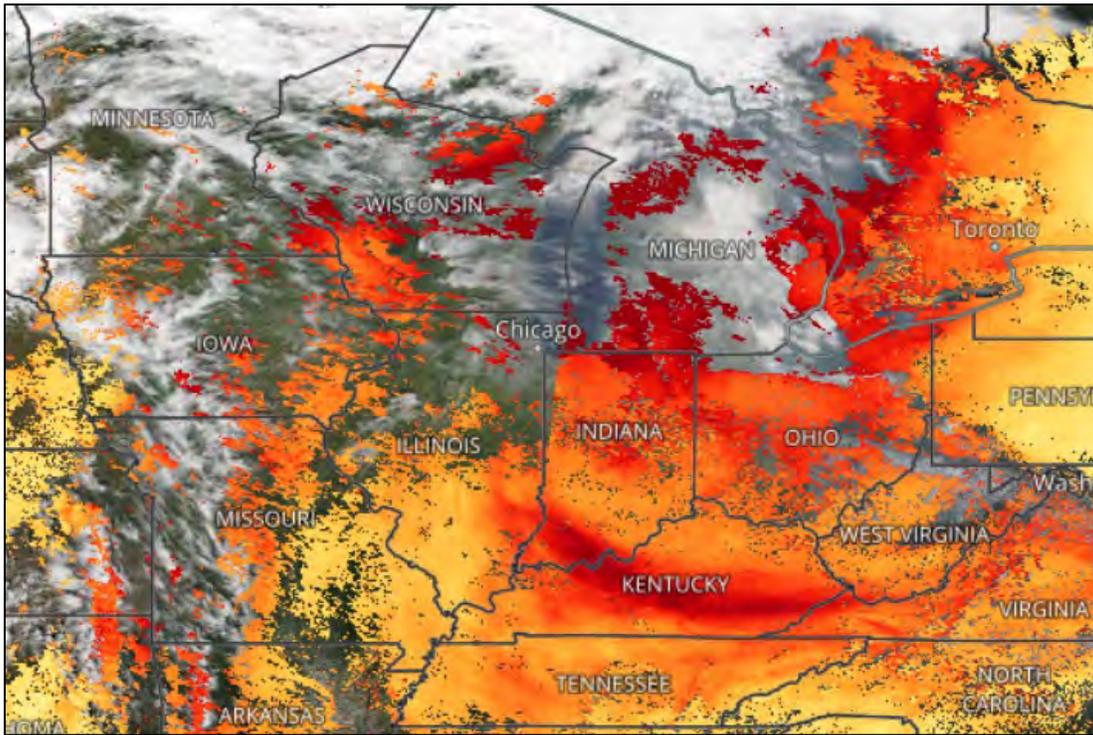
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - Washington Park	180970078	9/15/2022	19.5	17.8
Indianapolis - W. 18th St.	180970081	9/15/2022	23.0	20.9

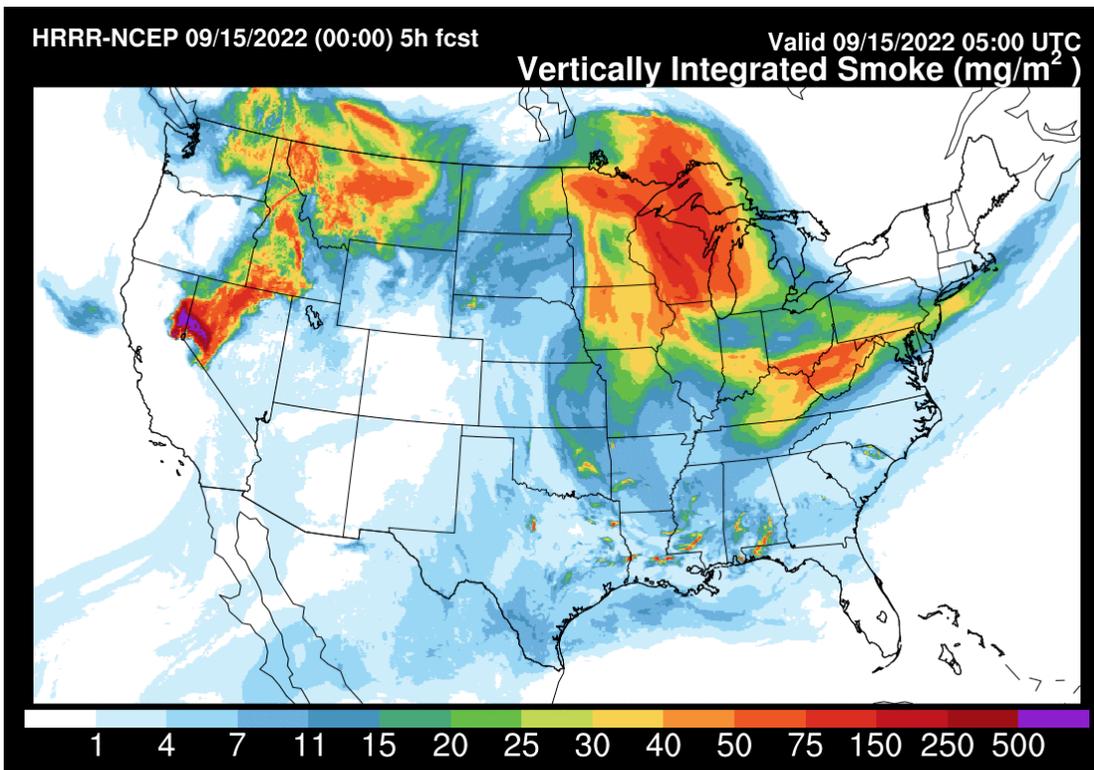
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – September 15, 2022



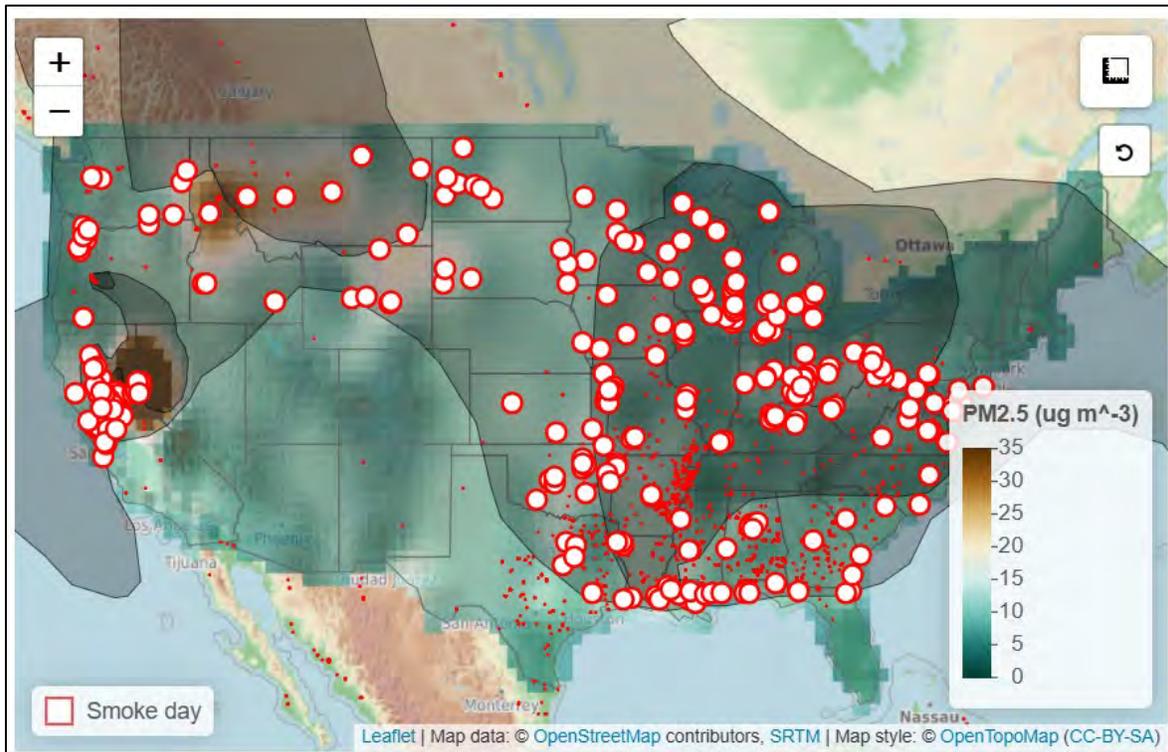
Satellite Imagery with MAIAC AOD - September 15, 2022



HRRR Smoke - Vertically Integrated Smoke - September 15, 2022



GAM PMO3 Smoke Output - September 15, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Thursday, September 15, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z September 15, 2022

SMOKE:

California/Western, northern, and eastern U.S./Western and Central Canada...

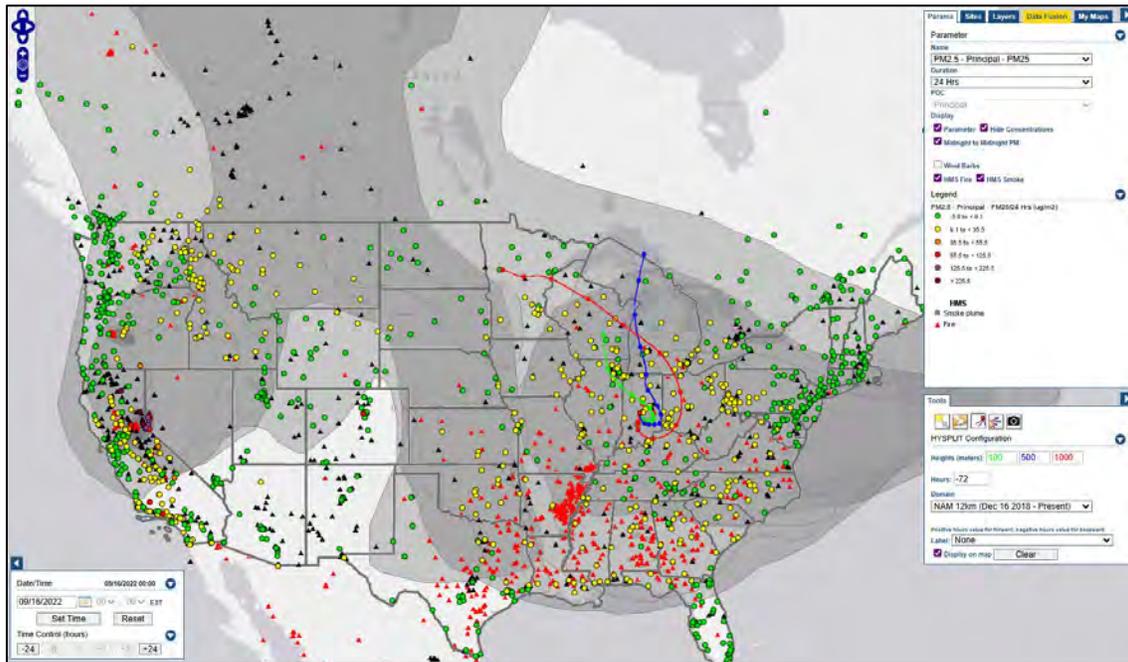
Dense smoke was observed emanating from the Mosquito Fire in northern California, with moderate smoke from this fire and another fire in western Oregon extending over much of northern California, western Nevada, and Oregon. Elsewhere, large area of remnant smoke, primarily from these and other regional wildfires, extended from northern California northward into western Canada, then southeastward across Manitoba and southern Ontario into the Great Lakes region and along the region around the Mississippi River. Within this area, areas of moderate smoke were observed covering much of Montana and Alberta, the western and central Great Lakes, and the lower Mississippi Valley. Additional areas of light smoke were observed over portions of the Atlantic Ocean.

September 16, 2022

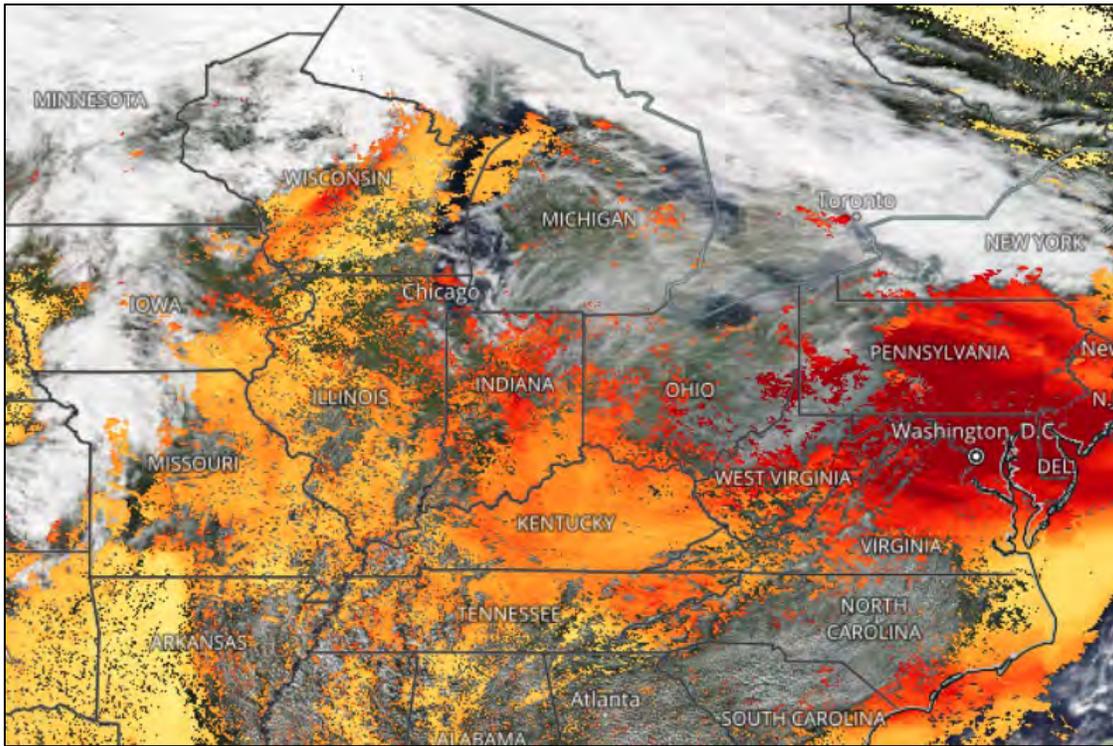
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - W. 18th St.	180970081	9/16/2022	25.5	20.9

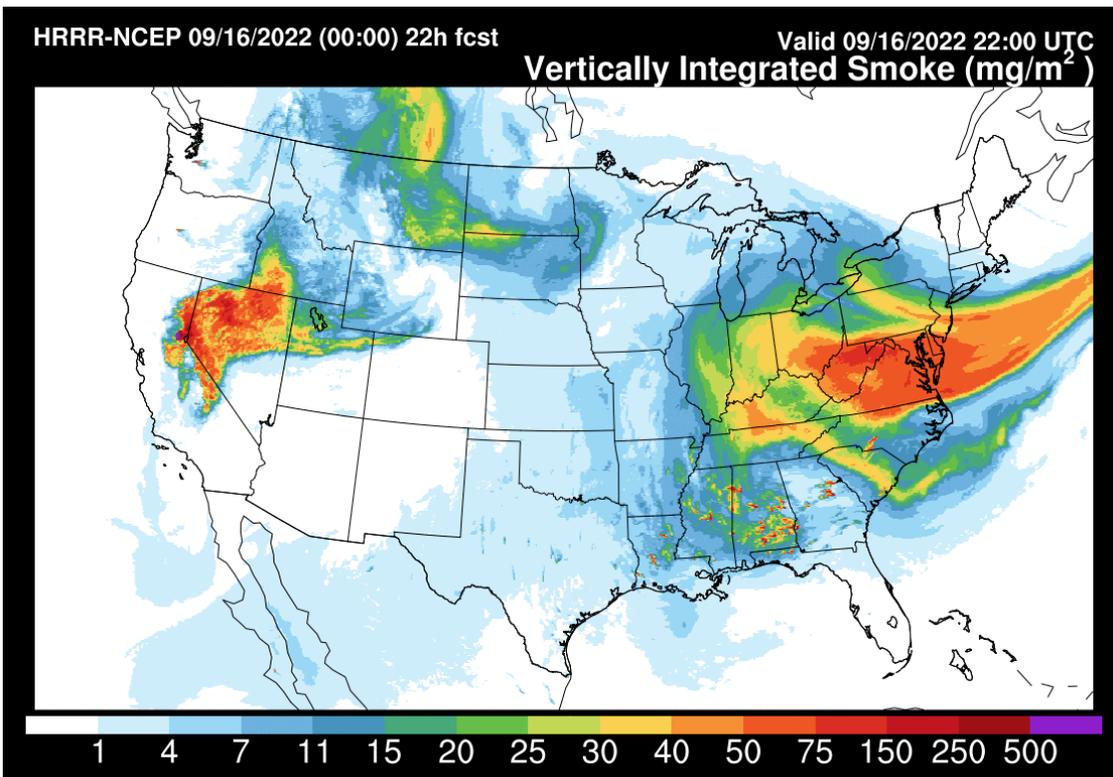
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - September 16, 2022



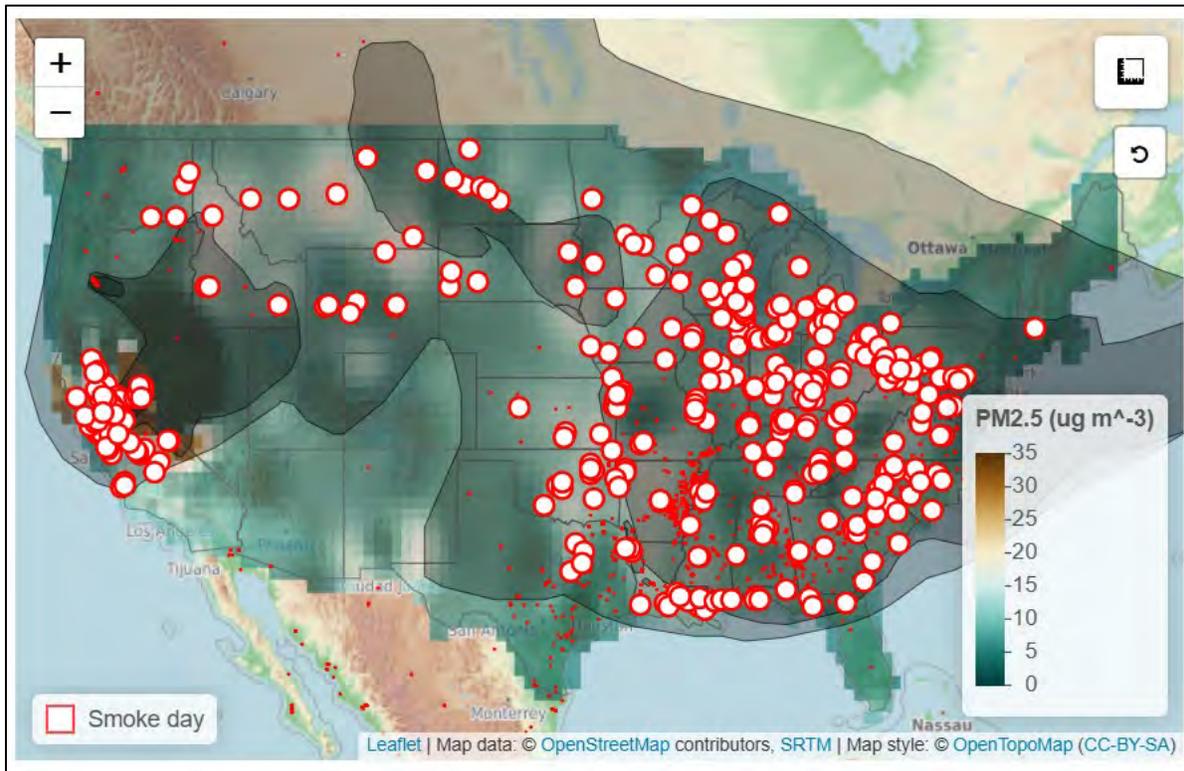
Satellite Imagery with MAIAC AOD - September 16, 2022



HRRR Smoke - Vertically Integrated Smoke - September 16, 2022



GAM PMO3 Smoke Output - September 16, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Friday, September 16, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1640Z September 16, 2022

SMOKE:

California/Western, northern, and eastern U.S./Western and Central Canada...

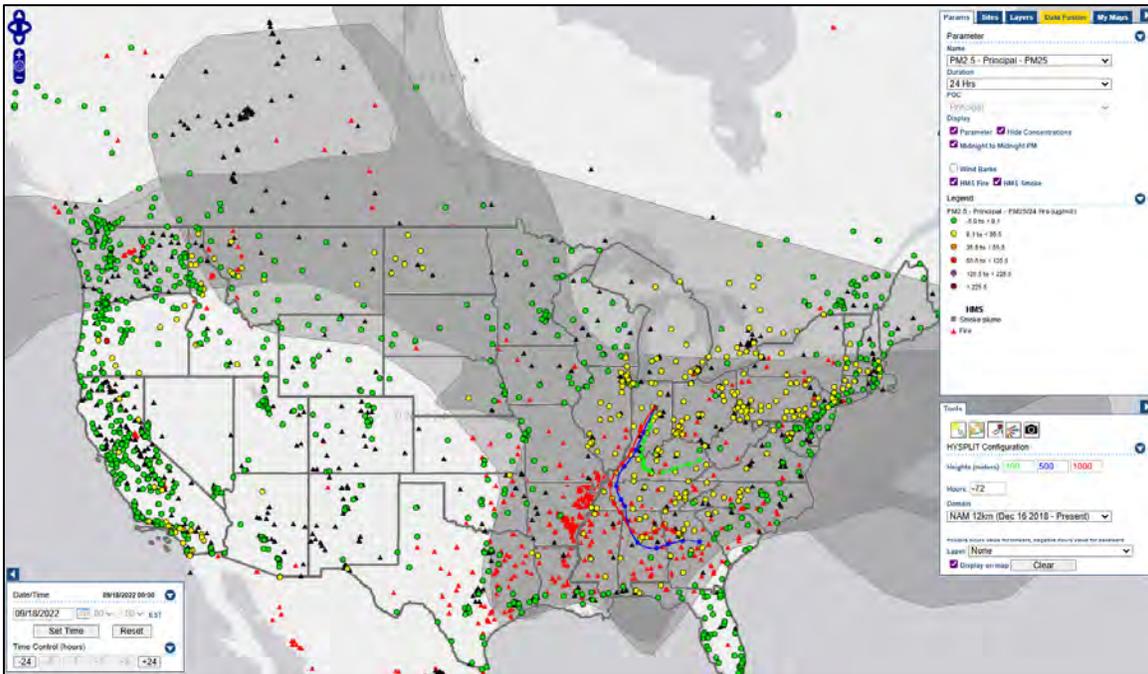
Thick smoke was observed emanating from the Mosquito Fire in northern California, with moderate smoke from this fire and another fire in western Oregon extending over parts of northeastern California, most of northern Nevada, eastern Oregon, southern Idaho, and parts of northern Utah. Elsewhere, a large area of smoke, primarily from these and other regional wildfires, extended from of the Californian coast northward into western Canada reaching the northwest Territories and western/southern Nunavut, then southeastward across Alberta, Manitoba, western/southern Ontario, western Quebec, into the Great Lakes region and along the region around the Mississippi River. Within this area, areas of moderate smoke were observed covering the eastern regions of the Northwest Territories along with northern Alberta and Saskatchewan and engulfing much of the eastern CONUS and Great Lakes region. Additional areas of light smoke were observed over portions of the Atlantic Ocean.

September 18, 2022

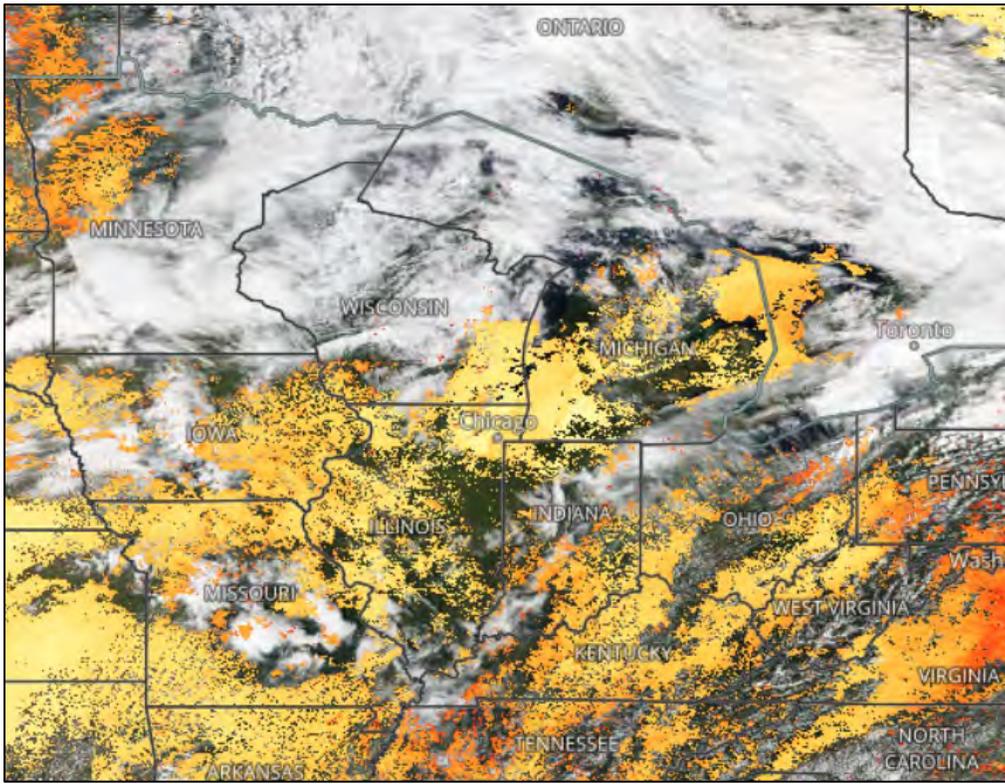
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Fishers	180570007	9/18/2022	15.3	13.8
Larwill	181830003	9/18/2022	15.0	15.0

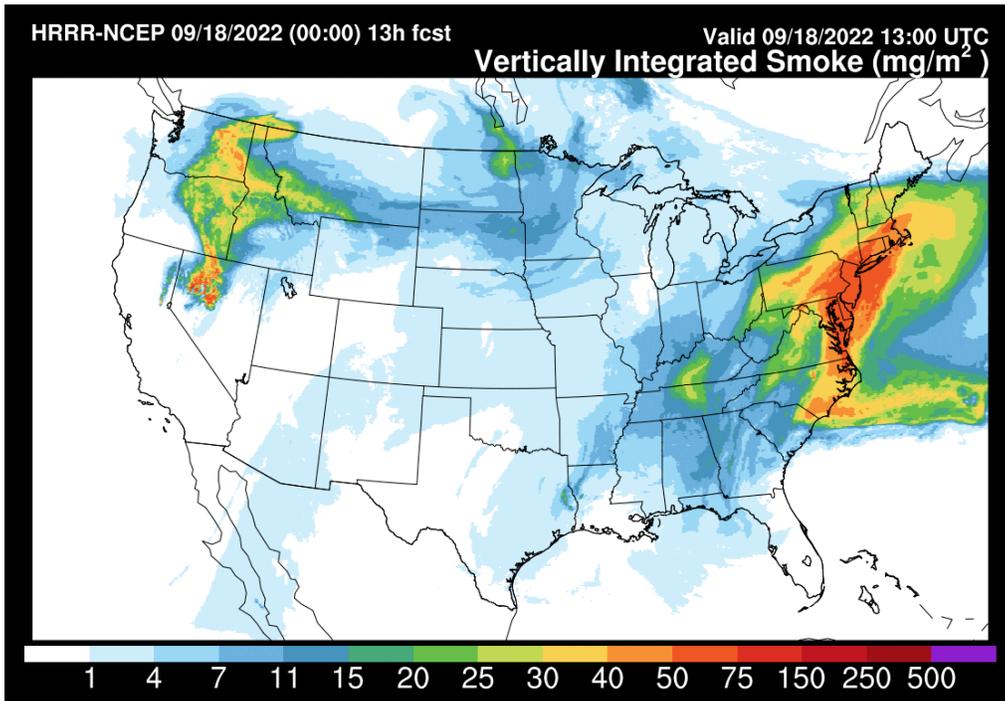
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - September 18, 2022



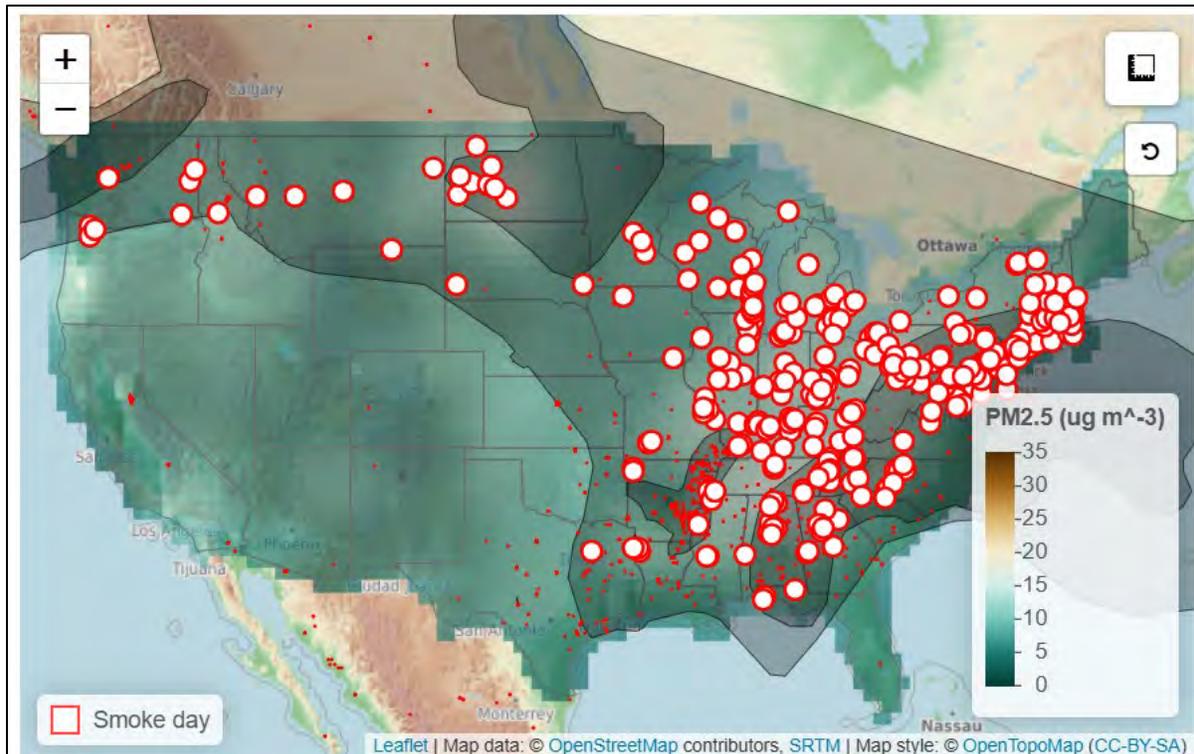
Satellite Imagery with MAIAC AOD - September 18, 2022



HRRR Smoke - Vertically Integrated Smoke - September 18, 2022



GAM PMO3 Smoke Output - September 18, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Sunday, September 18, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1900Z September 18, 2022

SMOKE:

Northwestern U.S./Western and Central Canada...

A large area of remnant light smoke from California wildfires and other wildfires across the western U.S. and western Canada covered the majority of the northwestern U.S. and the western and central Canada reaching the Hudson Bay. Light smoke continued to cover the northernmost US states, the Great Lakes region, Mississippi Valley, Ohio Valley and all of the eastern US, then extended out into the western and central Atlantic. Heavy cloud cover obscured visibility of the true extent of the smoke over northern California, northern Nevada, the Pacific northwest and northern Canada. It is likely varying degrees of smoke exists in these areas.

Eastern United States...

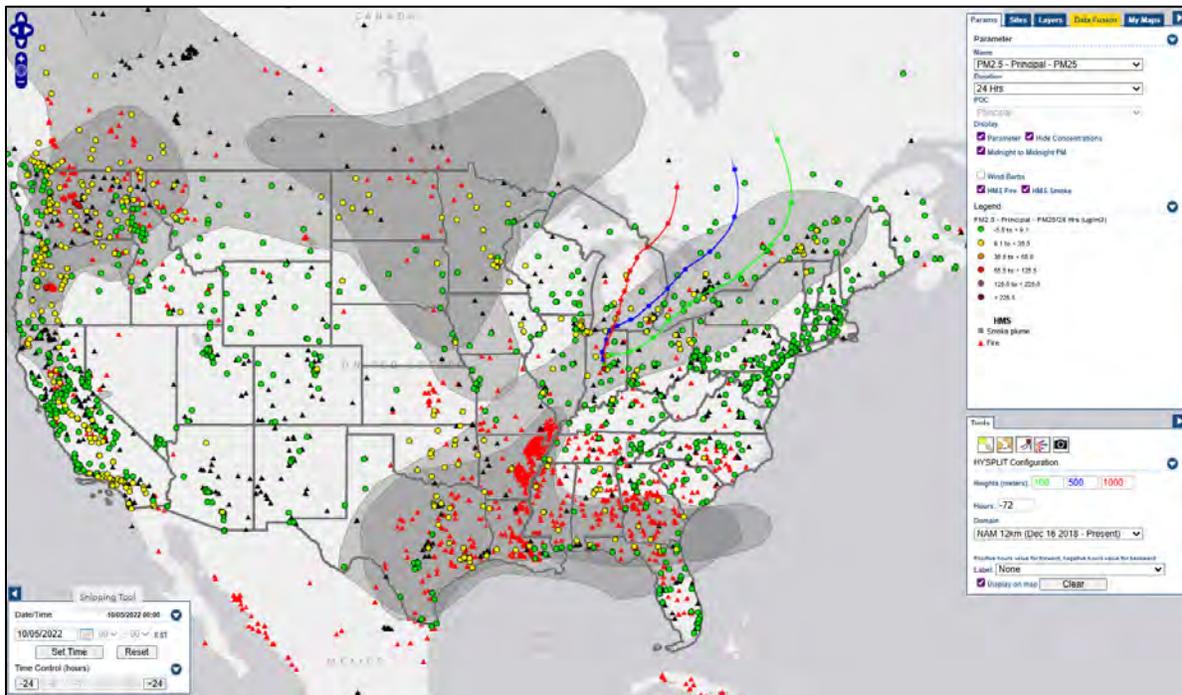
Predominantly light smoke was visible covering a large expanse including the Midwestern U.S., the Mississippi Valley and areas to the east with the exception of Florida. Multiple agricultural fires contributed medium density smoke along the southern-Mississippi Valley, while a larger area of medium density remnant smoke covered the Appalachian mountains from the panhandle of Florida northeast to Cape Cod and off the mid-Atlantic coast.

October 5, 2022

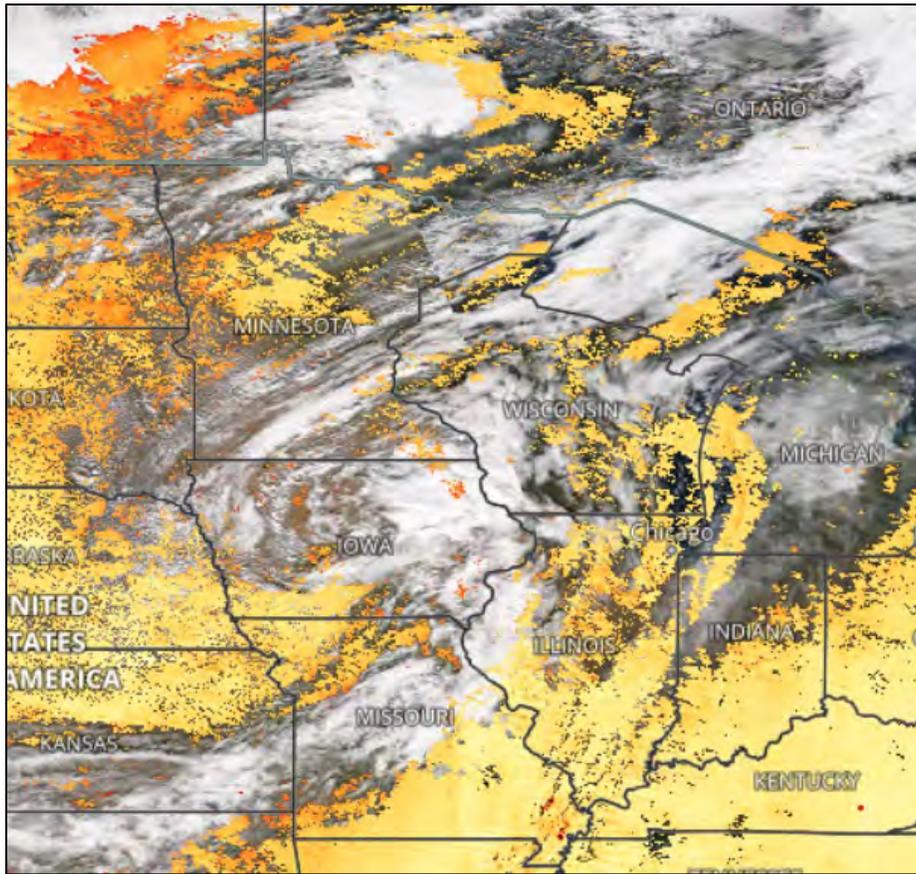
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - Washington Park	180970078	10/5/2022	19.3	17.8
Indianapolis - School 21	180970084	10/5/2022	18.5	15.5
Indianapolis - I-70 E	180970087	10/5/2022	25.3	20.5

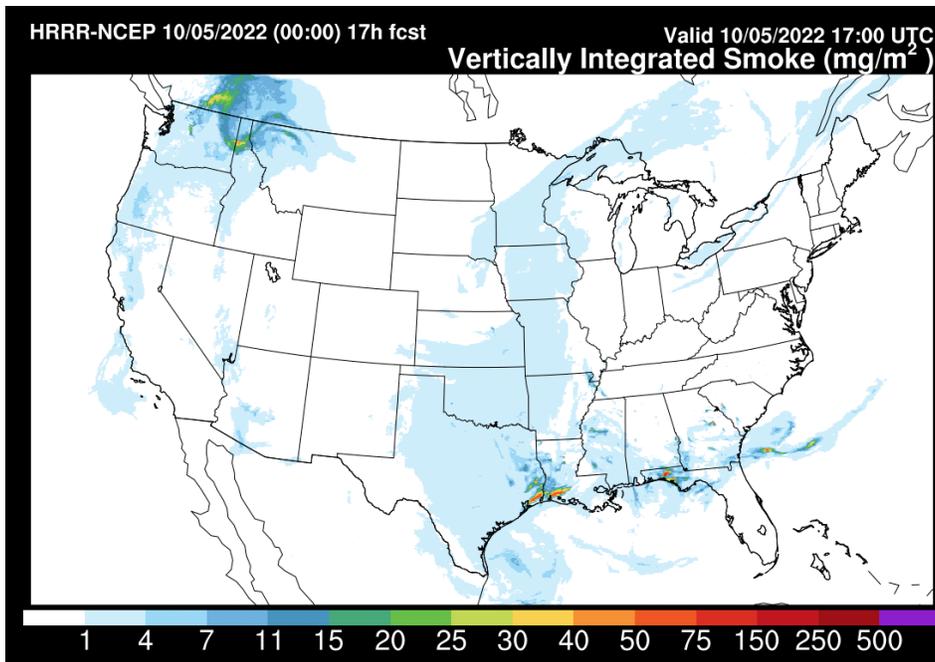
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - October 5, 2022



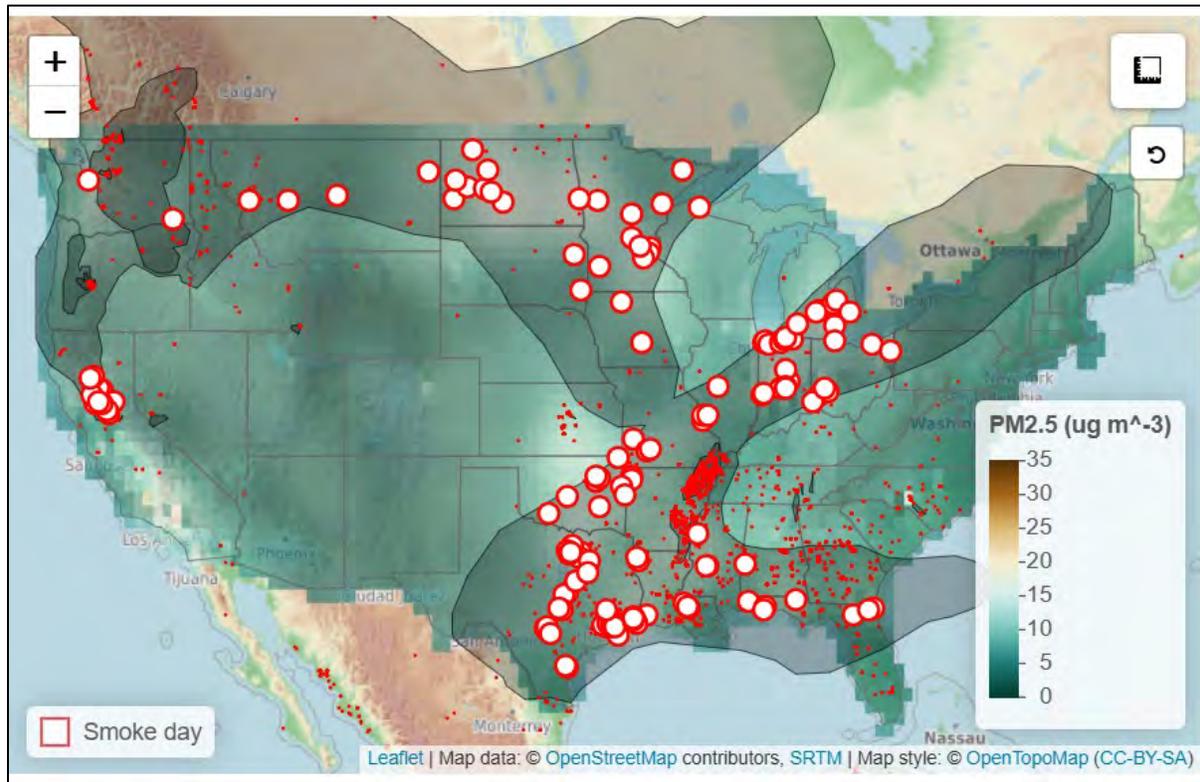
Satellite Imagery with MAIAC AOD - October 5, 2022



HRRR Smoke - Vertically Integrated Smoke - October 5, 2022



GAM PMO3 Smoke Output - October 5, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Wednesday, October 5, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1640Z October 5, 2022

SMOKE :

Pacific Northwest/British Columbia/Northern and Southern Canada...
A sizable area of mostly light density smoke was observed extending from the Pacific Northwest and British Columbia, engulfing all of Washington and parts of southern British Columbia along the border. The smoke mainly derived from wildfires across the Pacific Northwest. Within this region, a large patch of moderate dense smoke was observed, moving south/southeast, with thick smoke being closer to the sources of the fire in central Washington and west-central Oregon. Despite heavy cloud cover engulfing majority of Canada, pocket of smoke was observable, notable a patch of moderate dense smoke across the border between in the southern Northwest territories and northern Canada, moving westward, and an area of remnant smoke between the border of southern Canada and northern-central U.S states of the Dakotas and Minnesota.

Southern U.S/Northeastern U.S...

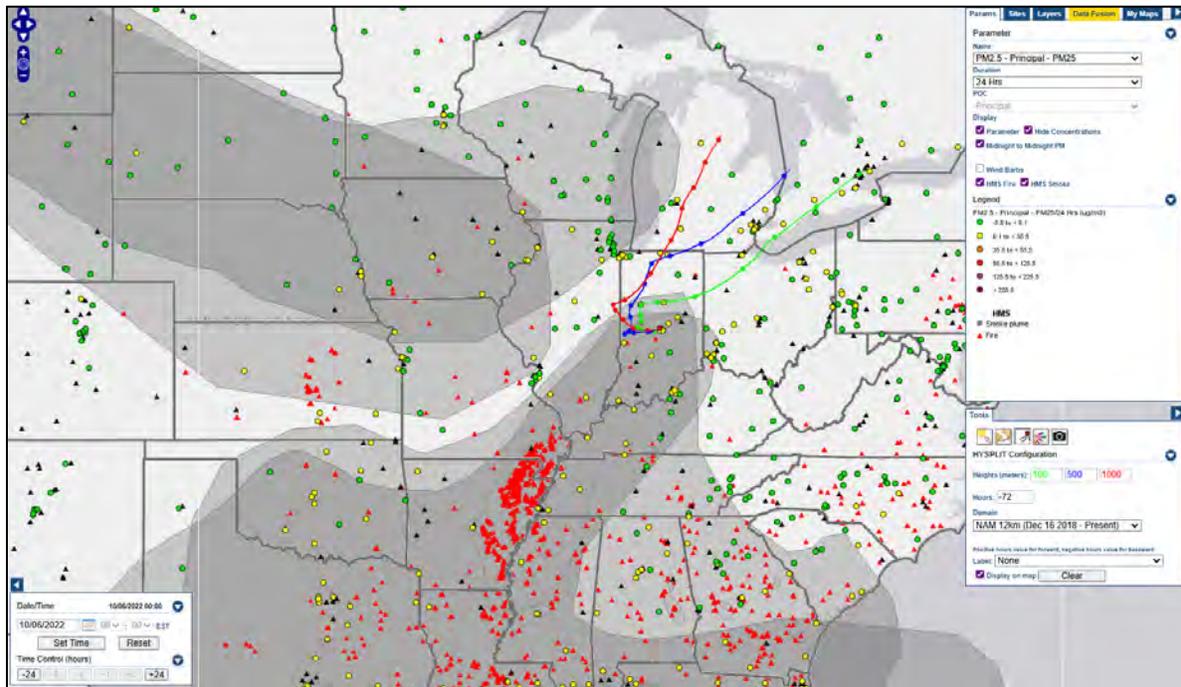
Numerous seasonal fires along the lower Mississippi River valley from the Missouri Bootheel to Louisiana produced a large area of smoke extending from Texas and the U.S Gulf States with the exception of Florida through the Ohio Valley and into southern Ontario/Quebec.

October 6, 2022

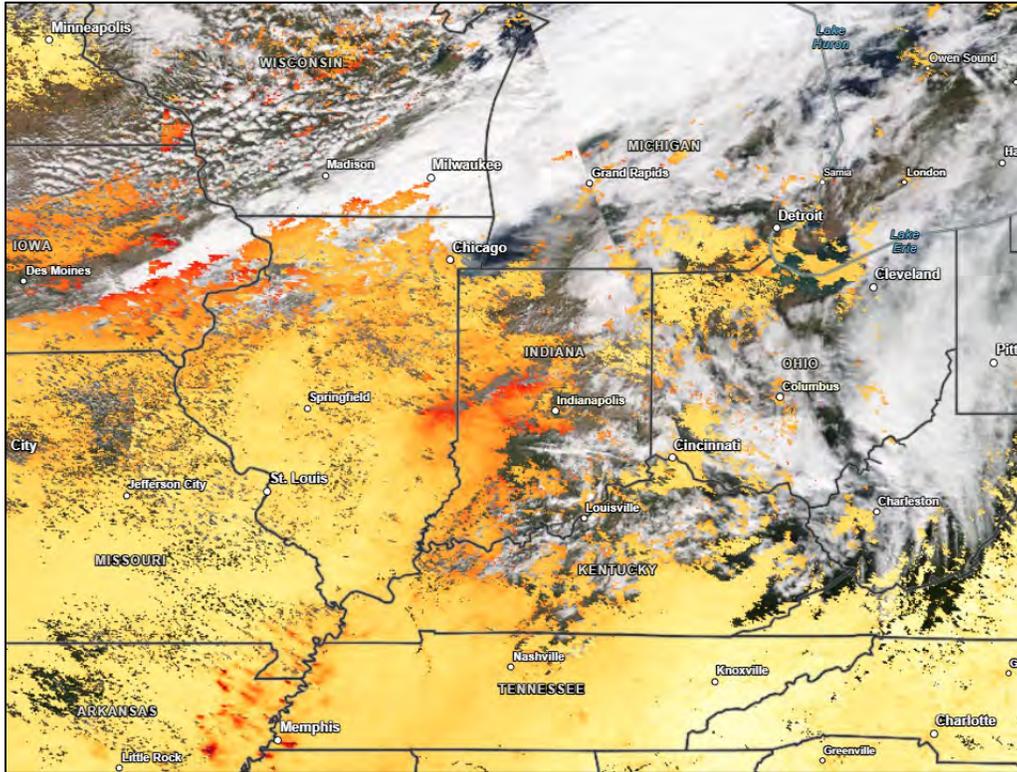
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - Washington Park	180970078	10/6/2022	21.5	17.8
Indianapolis - W. 18th St.	180970081	10/6/2022	21.1	20.9
Bloomington - Binford	181050003	10/6/2022	13.3	12.8

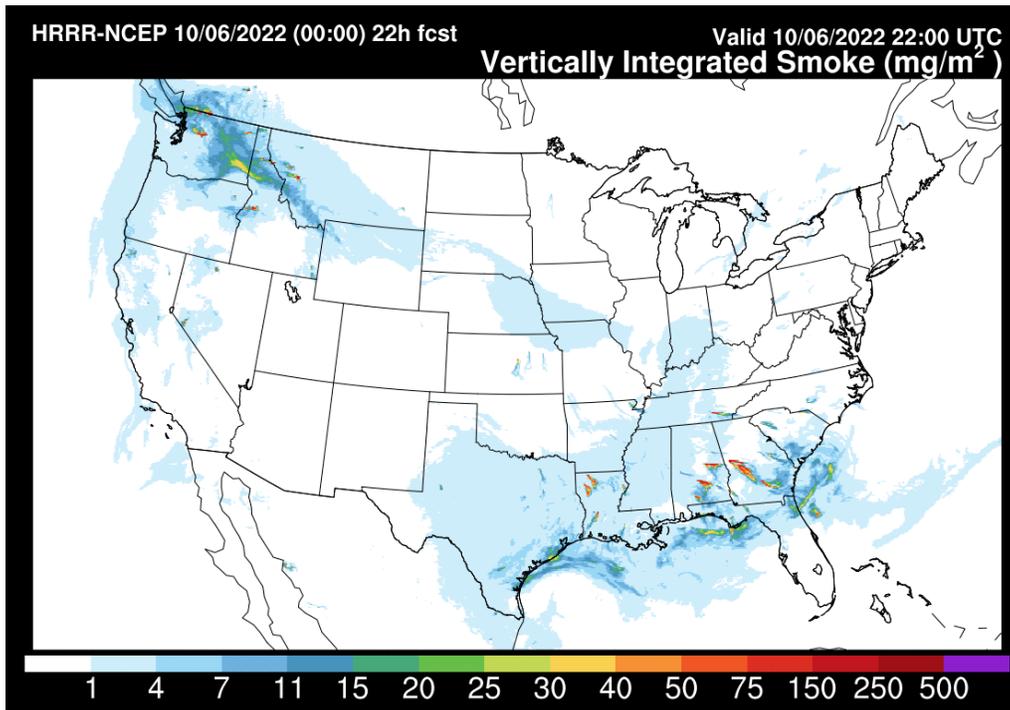
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - October 6, 2022



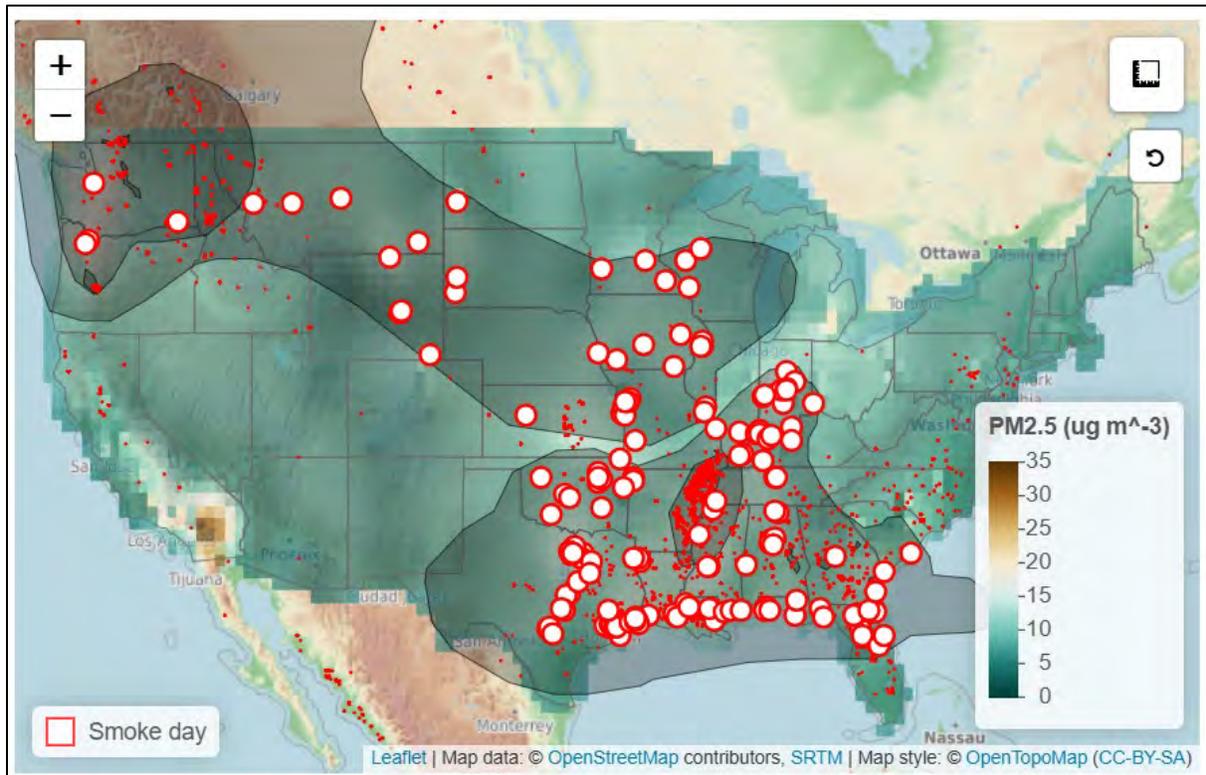
Satellite Imagery with MAIAC AOD - October 6, 2022



HRRR Smoke - Vertically Integrated Smoke - October 6, 2022



GAM PMO3 Smoke Output - October 6, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Thursday, October 6, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1700Z October 6, 2022

SMOKE :

Western Canada, Southern Canada, Pacific Northwest, Northern Plains.... A large area of light density smoke with some areas of moderate to localized high density smoke, from the ongoing fires over the Pacific Northwest and western Canada, was extending from portions of western Canada, the Pacific Northwest of the United States through southern Canada to the Northern Plains of the United States. Within this area of smoke, several areas of moderate density smoke were seen with those being over areas of Oregon, Washington and southern British Columbia. Moderate or potentially high-density smoke may be also likely over southern region of the Northwest Territories bordering northern Alberta but cloud cover progressed over this region. Some localized high-density smoke was also seen near the ongoing fire activity.

Southern United States....

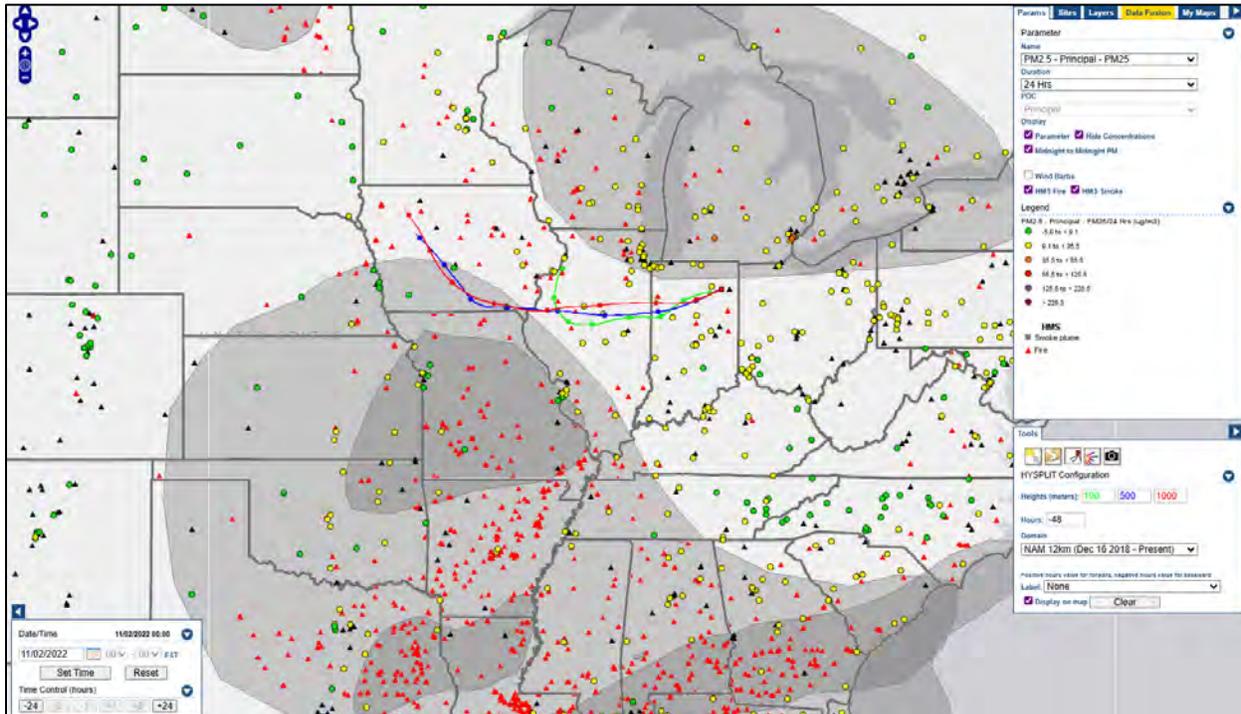
An area of mostly light density smoke from fires throughout much of the region was seen extending from the Southern Plains east along the Gulf Coast and northern Gulf of Mexico to offshore the Southeast United States coast off of Florida.

November 2, 2022

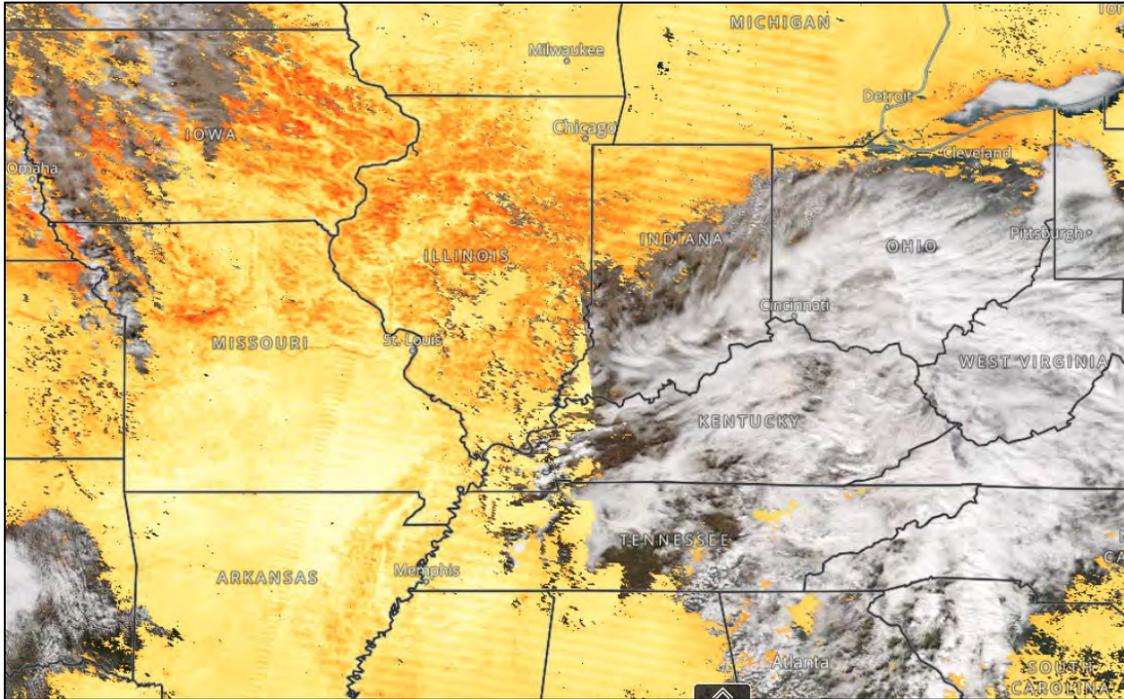
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Elkhart - Prairie St	180390008	11/2/2022	32.2	16.3
East Chicago - Marina	180890034	11/2/2022	18.0	18.0
South Bend - Shields Dr.	181410015	11/2/2022	29.1	16.9
Larwill	181830003	11/2/2022	19.8	15.0

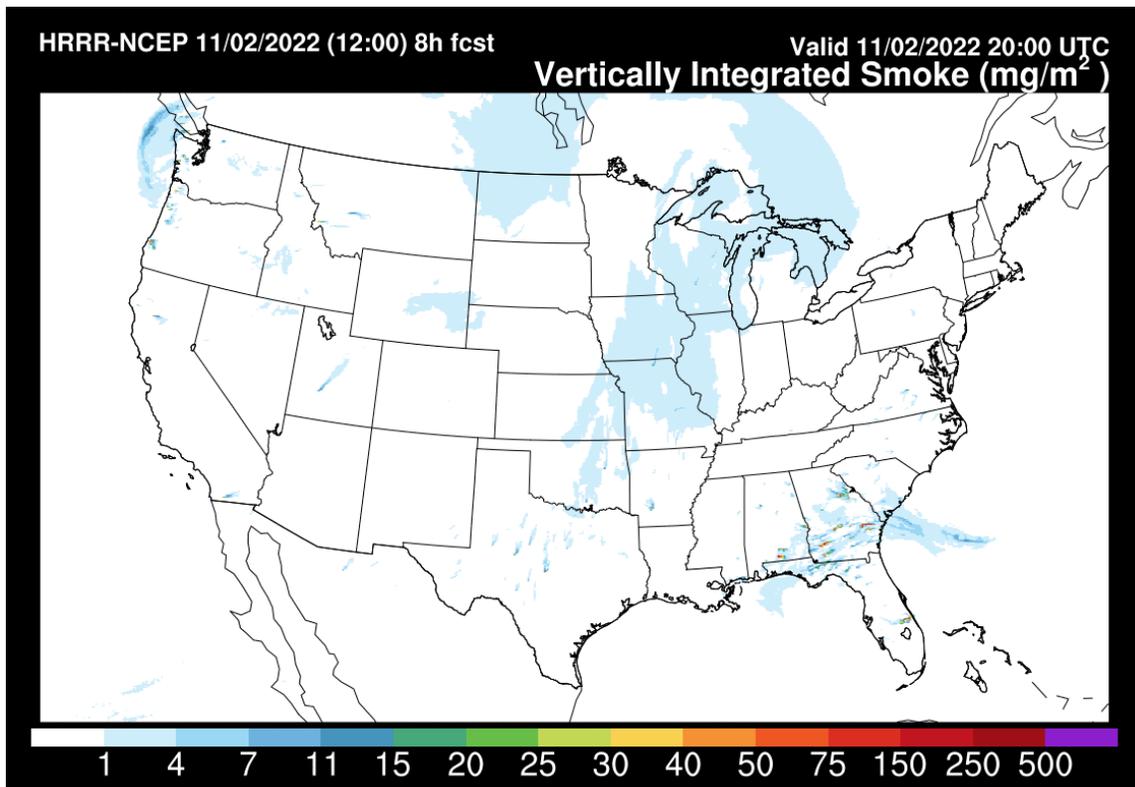
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories – November 2, 2022



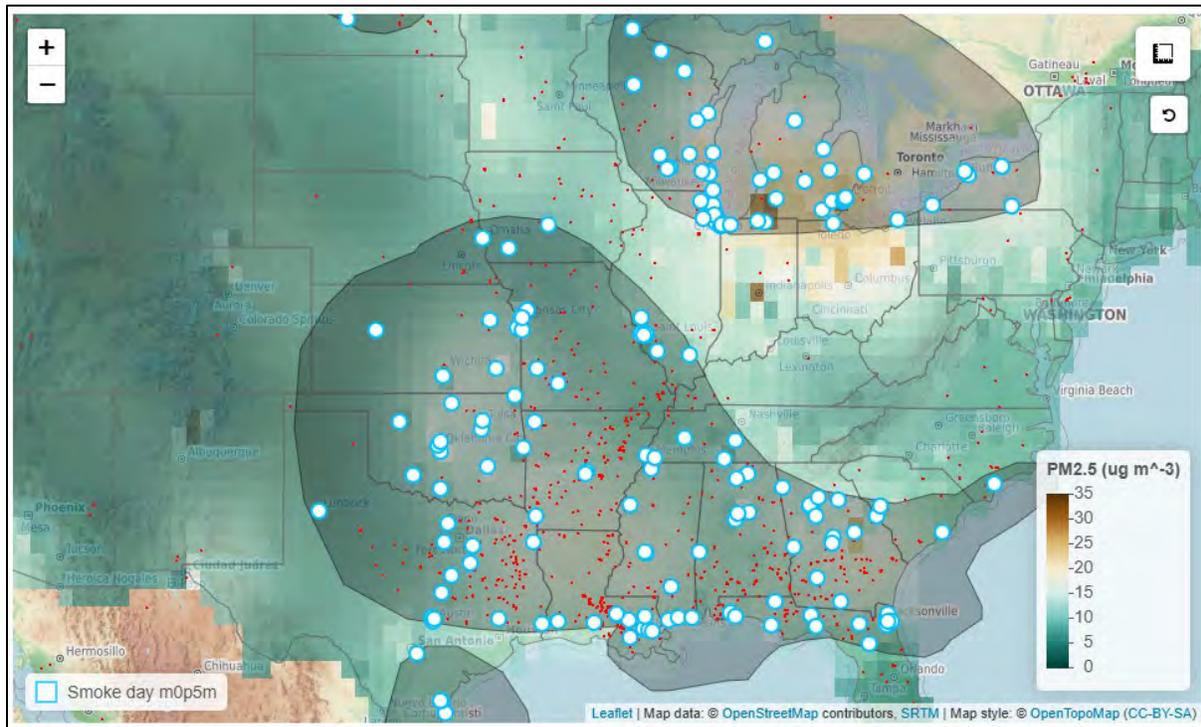
Satellite Imagery with MAIAC AOD - November 2, 2022



HRRR Smoke - Vertically Integrated Smoke - November 2, 2022



GAM PMO3 Smoke Output - November 2, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Wednesday, November 2, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 0022Z November 3, 2022

SMOKE:

North-Central and Eastern U.S./Gulf of Mexico/ North Dakota, Southern Canada, Great Lakes region...

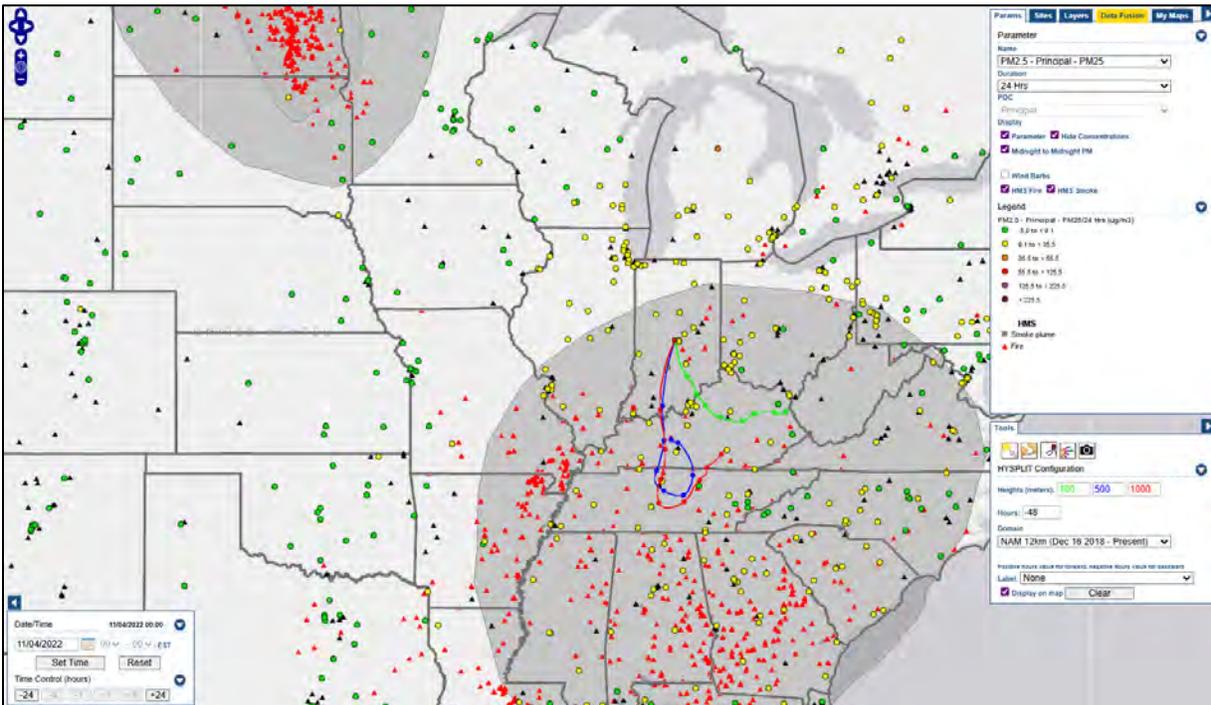
A huge mass of thin to moderate density smoke attributed mainly to daily seasonal/agricultural type fire activity occurring especially in the Mississippi Valley, the southeastern U.S., as well as contributions from recent and current wildfire activity in the Pacific Northwest, western Canada was present covering much of the South-central and the southeastern U.S., the smoke continued east reaching through southeastern coastline and south over the Gulf of Mexico along the Gulf states. Another area of heavy seasonal burning was observed in Northern North Dakota, southern Saskatchewan and southern Manitoba. Another area of light residual smoke was observed through cloud cover over the Great Lakes region. This smoke is most likely from heavy burning in the Northern North Dakota region and the Pacific Northwest and is moving east.

November 4, 2022

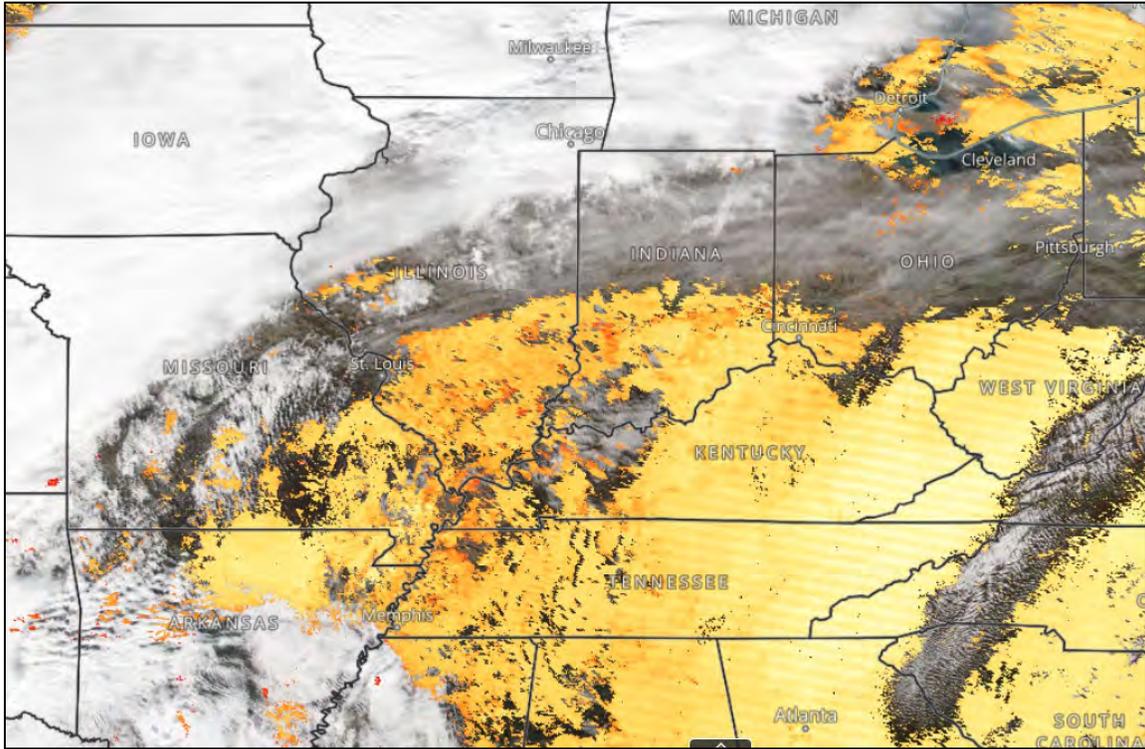
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - Washington Park	180970078	11/4/2022	20.8	17.8

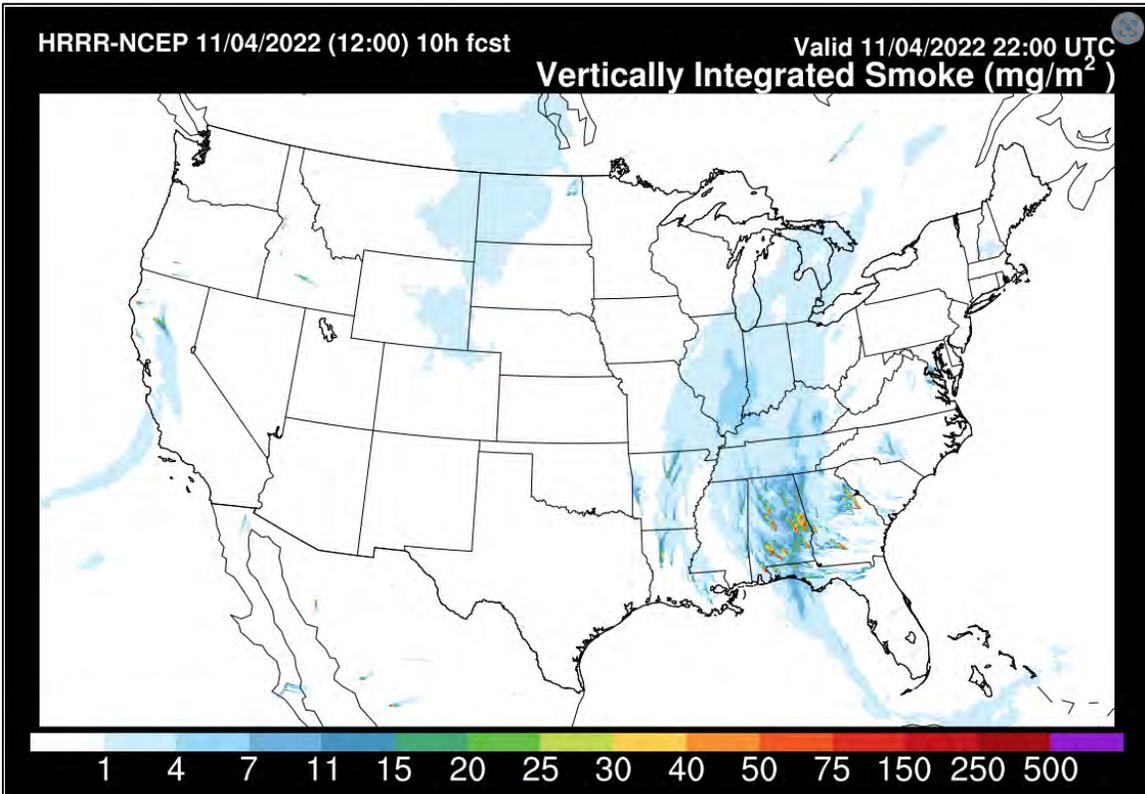
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - November 4, 2022



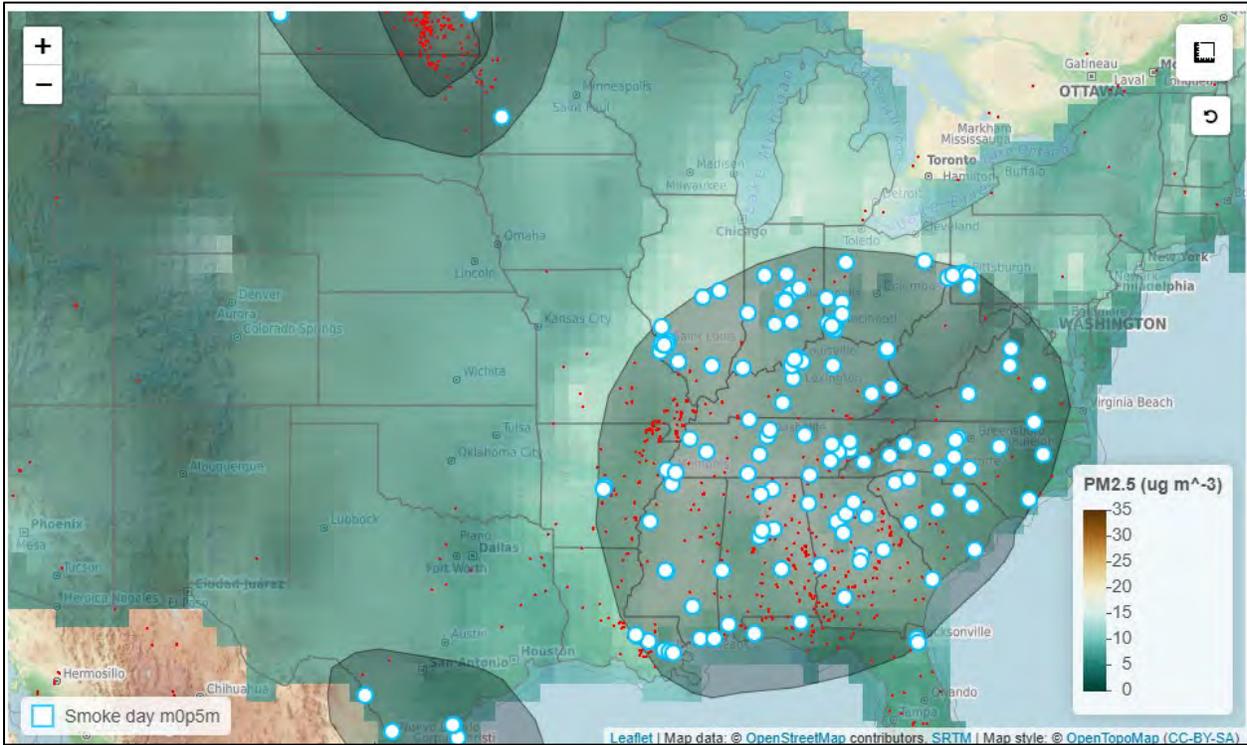
Satellite Imagery with MAIAC AOD - November 4, 2022



HRRR Smoke - Vertically Integrated Smoke - November 4, 2022



GAM PM03 Smoke Output - November 4, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Friday, November 4, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z November 4, 2022

SMOKE :

Southeastern CONUS...

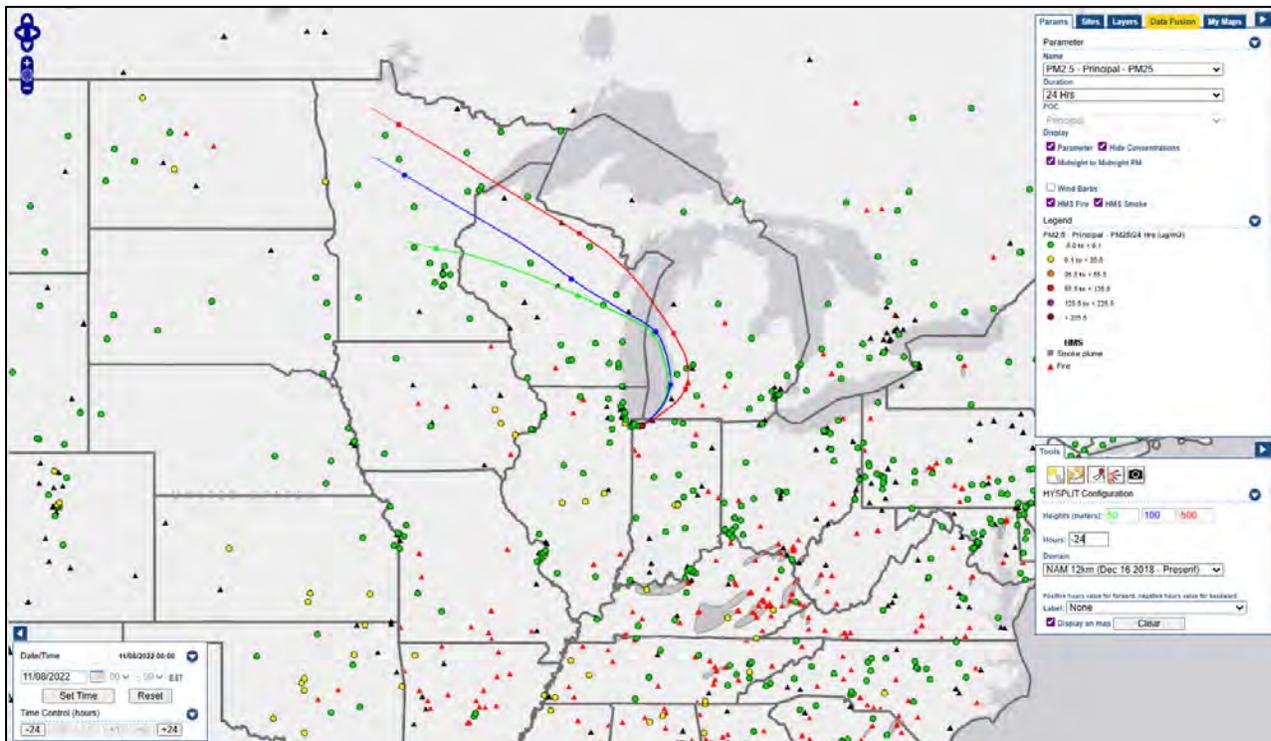
A few fires across the southeastern CONUS were observed producing light smoke this morning. Smoke was moving clockwise around high pressure centered over the southern Appalachians.

November 8-9, 2022

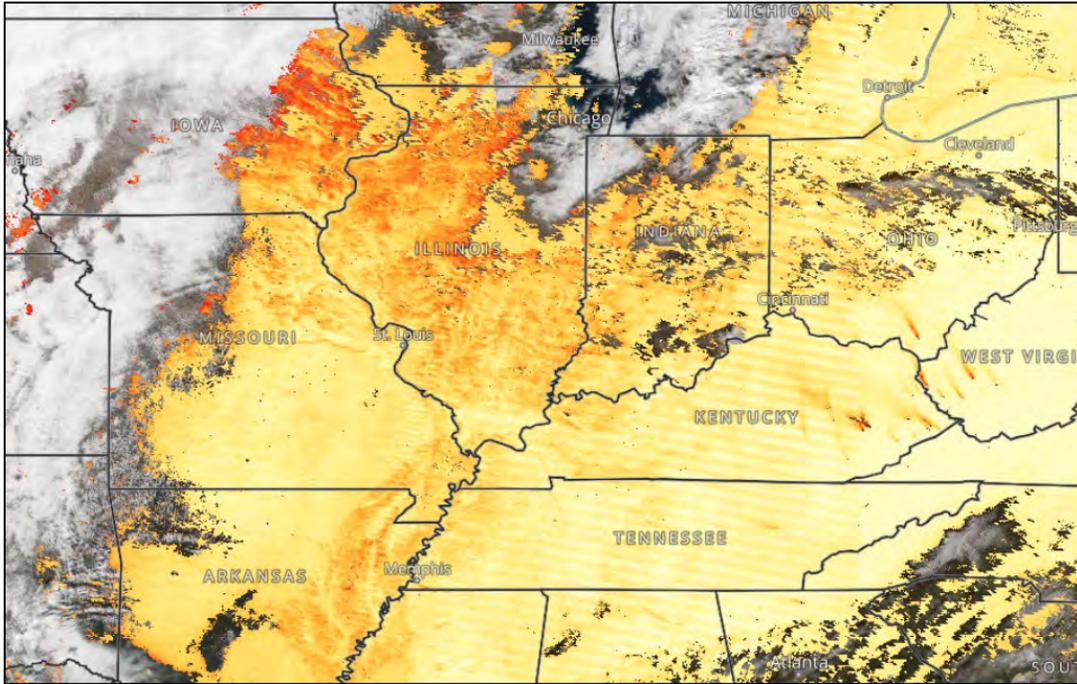
List of PM_{2.5} Monitoring Site Impacted by Prescribed Burns

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Ogden Dunes	181270024	11/8/2022	126.6	15.3
Ogden Dunes	181270024	11/9/2022	52.0	15.3

AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - November 8, 2022



Satellite Imagery with MAIAC AOD - November 9, 2022



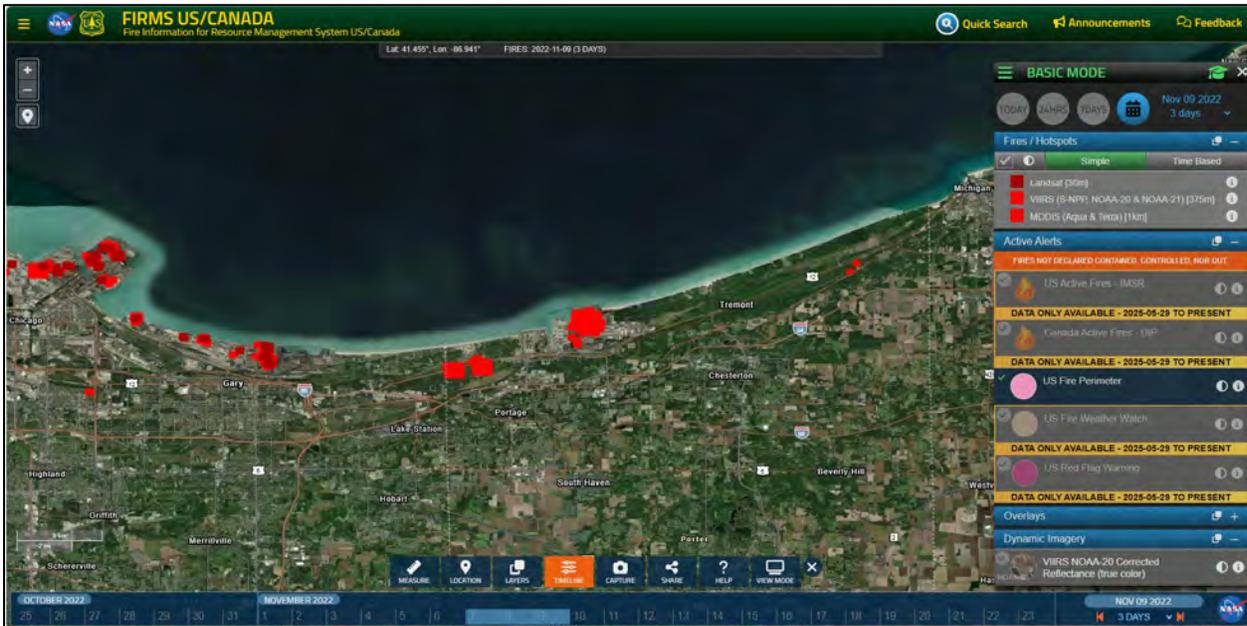
Photograph of controlled burn in northern Porter County on November 7, 2022



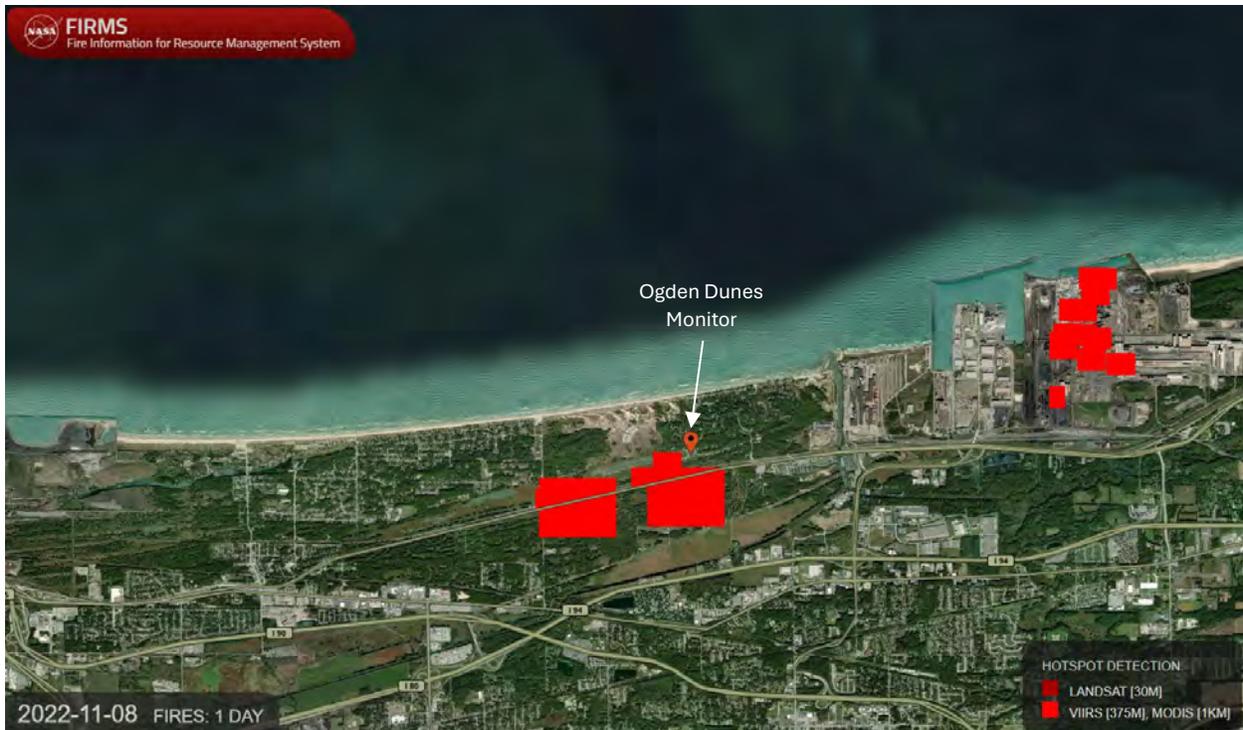
Wildland firefighters start a controlled burn Nov. 7 of 77 acres in and around the Dunewood Campgrounds at the Indiana Dunes National Park.

John J. Watkins, The Times

Fire Information for Resource Management System (FIRMS) Fire/Hot Spot Map - November 8, 2022



FIRMS MAP with Ogden Dunes PM_{2.5} Monitor and Nearby Prescribed Fire November 8, 2022

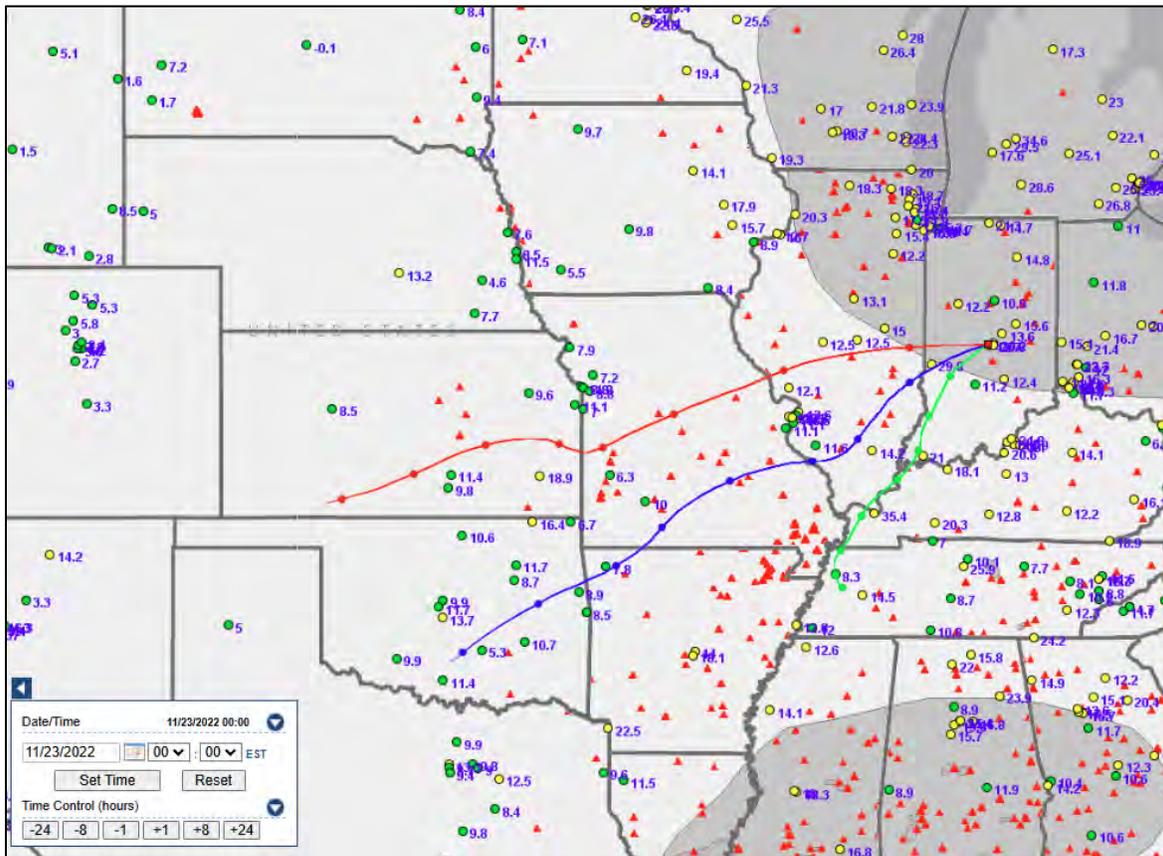


November 23, 2022

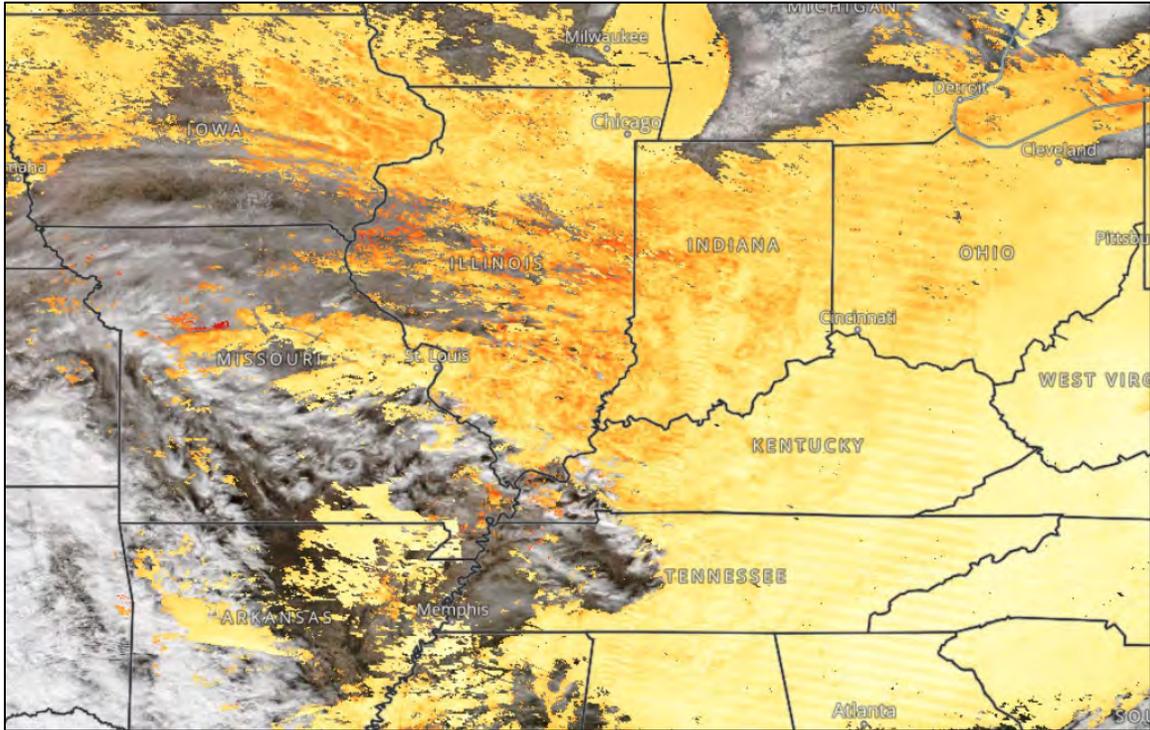
List of PM_{2.5} Monitoring Sites Impacted by Wildfire Smoke

Monitor name	AQS ID	Date	Daily Average (µg/m ³)	Tier 2 Threshold (µg/m ³)
Indianapolis - Washington Park	180970078	11/23/2022	18.3	17.8
Indianapolis - W. 18th St.	180970081	11/23/2022	40.8	20.9
Indianapolis - I-70 E	180970087	11/23/2022	24.7	20.5
South Bend - Shields Dr.	181410015	11/23/2022	19.4	16.9

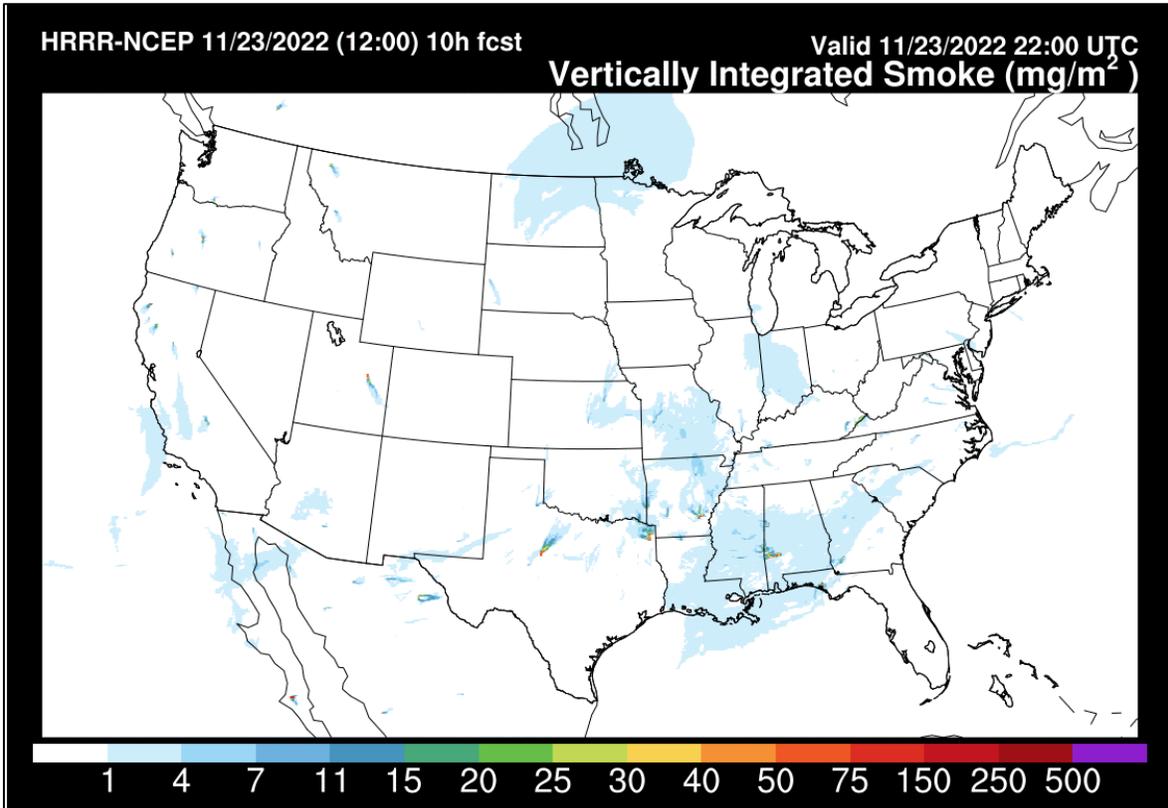
AirNow Tech Fire/HMS Smoke Map with Backward Trajectories - November 23, 2022



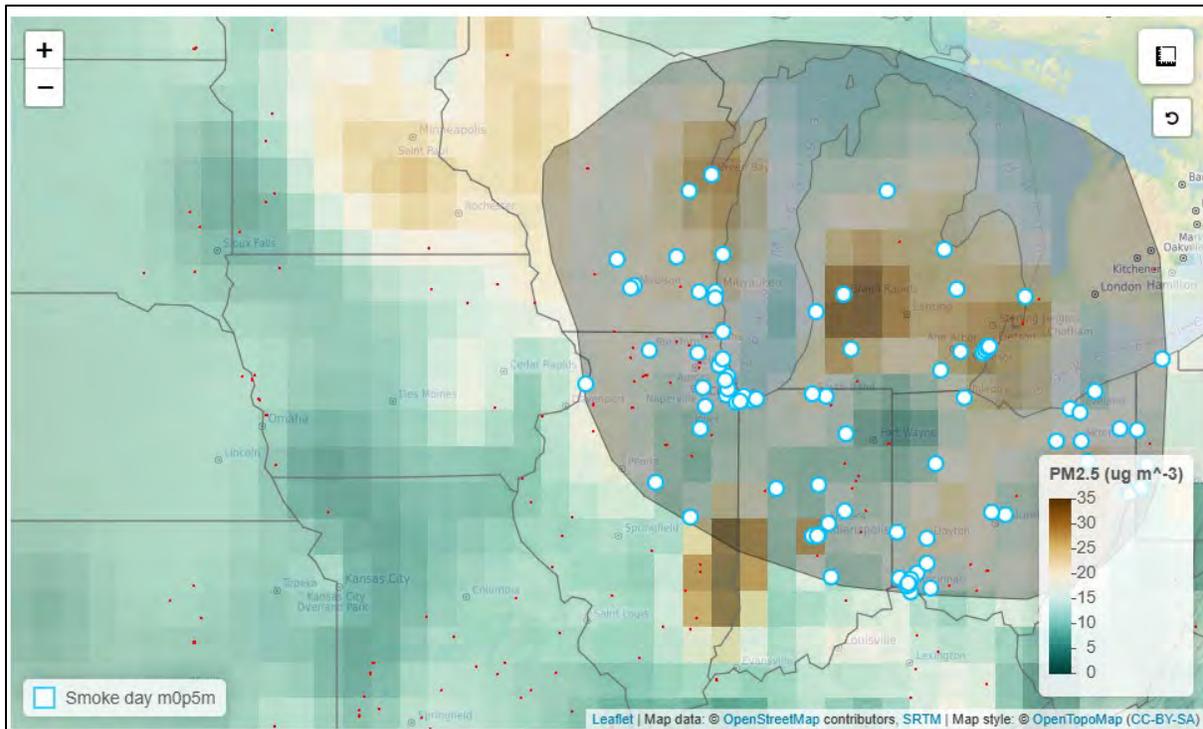
Satellite Imagery with MAIAC AOD - November 23, 2022



HRRR Smoke - Vertically Integrated Smoke - November 23, 2022



GAM PMO3 Smoke Output - November 23, 2022



NOAA Satellite Smoke – 2022 Satellite Smoke Text Excerpts

Wednesday, November 23, 2022

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 0119Z November 24, 2022

SMOKE:

Southeastern U.S./Mississippi Valley/Great Lakes Region/Northern Gulf of Mexico...

Seasonal/prescribed fire activity was observed throughout the Mississippi River Basin and the southeastern U.S. causing two large areas of smoke. The first was located over the Great Lakes Region and consisted of light density smoke and was generally moving east. The second area was of light to moderate density smoke blanketed the Mississippi Valley, the southeastern U.S and continued south over the northern Gulf of Mexico. Numerous moderate density smoke plumbs were seen throughout the area of light smoke. A larger area of moderate density smoke was located around southern Louisiana where it was moving northwest.