

AirNow-Tech

What's New in Version 2?

Steven A. Ludewig¹, Lewis Weinstock², Tim Hanley²,
Alan C. Chan¹, Alan N. Healy¹, Jonathan W. West¹,
Dianne S. Miller¹, Eric A. Gray¹

¹Sonoma Technology, Inc.

²U.S. Environmental Protection Agency

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Time For An Upgrade!

AIR NOW TECH Navigator

Welcome, Steve Ludwig! My Account

Home Agencies Sites Navigator Data Forecasts Polling Notifier EnviroFlash

Tools Tool Options Site Info

- Data Mode
 - Site Map
 - Hourly Data
- Map Size
 - Small
 - Medium
 - Large
- Default Map
 - Set as Default Map
 - Clear Default Map
 - Go to Default Map

Sites: My Agency's Sites Site Selector

Parameters: O3 (PPB) Search List (All) (Remove All)

Date Range: 05/03/12 to 05/03/12

Data Table & Export Options: Row Summaries: Max/min Average Count Column Summaries: Show Graph Options

Date: Graph Data & Graph Export

john@sonomatech.com

Hour (LST)

20 records returned - 10/10 sites contain data

Click on the column heading to sort

Agency	Site Name	AQS Code	Param	Date	1	2	3	4	5	6	7	8	9	10
CAL	Auburn	00010002	O3	05/03/12	21	21	24	24	21	22	23	23	23	23
CAL	Auburn	00010002	O3	05/03/12	40	50	51	48	48	48	48	44	42	40
CAL	Colusa	00010004	O3	05/03/12	60	60	60	60	60	60	60	60	60	60
CAL	Colusa	00010004	O3	05/03/12	48	50	48	48	48	48	50	48	51	57
CAL	Elk Grove	00070011	O3	05/03/12	23	23	25	26	28	18	22	13	14	16
CAL	Elk Grove	00070011	O3	05/03/12	42	42	41	41	38	43	43	44	43	42
CAL	Folsom	00070012	O3	05/03/12	38	43	38	38	38	38	42	41	38	38
CAL	Folsom	00070012	O3	05/03/12	39	42	43	40	39	37	38	40	43	42

2002

Params Sites Layers My Maps

Parameter Name: O3

Duration: 1 Hr

POC: Minimum

Display: Parameter Wind Barbs

Legend

O3/1 Hr (ppb)

- 0.0 - 60.0
- 60.0 - 80.0
- 80.0 - 100.0
- 100.0 - 112.0
- 112.0 - 125.0
- > 125.0

My Queries

Select: OzoneQuery1

Name: OzoneQuery1

Display Settings

Date Range: Last 1 Days

Display: Graph Line Table Unpivot

Filter: By OC Code Valid By Source Preliminary

Query Settings

Query Type: Custom

Parameter (s): Current Selection (0 parameters) Parameter Selector

Site(s): Current Selection (0 sites) Site Selector

Filtered Data Set(s):

Selected Data Set(s): Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1, Auburn/O3 - 44201/1 Hr/1, Elk Grove/O3 - 44201/1 Hr/1

Run Update Delete CSV Export

Enable Editing

Graph Output

Reset Chart Zoom Out

Value

60
50
40
30
20

Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1 (PPB)
Auburn/O3 - 44201/1 Hr/1 (PPB)
Elk Grove/O3 - 44201/1 Hr/1 (PPB)

Date/Time: 05/03/2012 11:00

05/03/2012 11:00 GMT-7

2012

Objectives

- Modify AirNow to use expanded data and metadata available from AQCSV file ingest and AQS backfill
- Redesign data query screens to improve options and visualization tools
- Enable data editing and quality control
- Redesign Navigator for better performance and enhanced features
- Improve general usability and performance

The screenshot displays the AirNow web application interface. At the top, there is a navigation bar with the AirNow logo and a user welcome message: "Welcome, Steven Ludewig | My Account | Sign Out". Below the navigation bar, there are several menu items: Agencies, Sites, Navigator, Data, Forecasts, Polling, Notifier, EnviroFlash, and Resources.

The main content area is divided into several sections:

- News and Events:** A section with a blue header and a message: "No news events currently available."
- My Agency's Forecasts:** A section with a blue header and a message: "No forecasts available. You have 10 cities associated with your agency, but the forecasts for these cities are all missing."
- My Agency's Polling Summary:** A section with a blue header and a table showing polling data for various agencies.

The "My Agency's Polling Summary" table is the most prominent feature, displaying data for May 02, 2012, 19:24 (ET). The table has columns for Agency, Ozone, PM_{2.5}, and PM₁₀. The data is color-coded based on a legend:

- Green:** Current
- Yellow:** 2 to 6 hrs old
- Red:** over 6 hrs old
- Gray:** Unknown status

Agency	Ozone	PM _{2.5}	PM ₁₀
AB1	05/02 17:00	04/11 15:00	05/02 17:00
AC1			
AIR			
AL1	05/02 18:00	04/11 15:00	05/02 17:00
AL2	05/02 18:00	04/11 15:00	05/02 18:00
AL3			
AL4	05/02 18:00	04/11 16:00	
AR1	05/02 18:00	04/11 15:00	
AZ1	05/02 18:00	04/11 15:00	05/02 18:00
AZ2	05/02 18:00	04/11 15:00	05/02 18:00
AZ3	05/02 18:00	04/11 16:00	05/02 18:00
AZ4	05/02 18:00		
BC1	05/02 18:00	04/11 15:00	05/02 18:00

Data Query (1 of 2)

- Save query configurations for re-use
- Select parameters by AQS code, duration, or POC
- Query sub-hourly data
- Display data in pivoted and unpivoted views
- Export data in CSV or KML format
- Display in interactive line graphs or scatter plots

The screenshot displays the AIRNOW Data Query interface. At the top, the AIRNOW logo is visible, along with user information: "Welcome, Steven Ludwig | My Account | Sign Out". The navigation menu includes "Agencies", "Sites", "Navigator", "Data", "Forecasts", "Polling", "Notifier", "EnviroFlash", and "Resources".

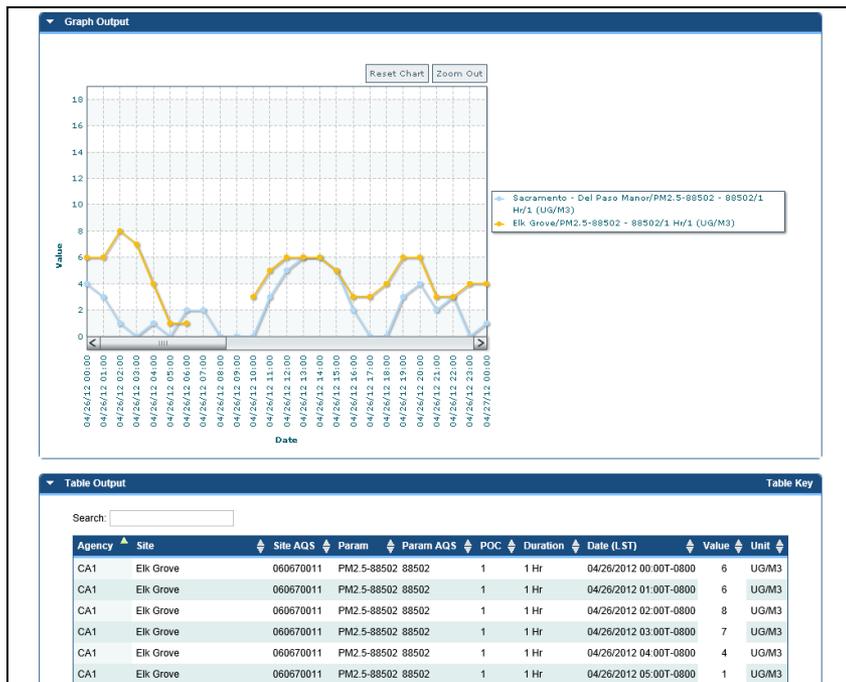
The interface is divided into several sections:

- My Queries:** Includes a "Select:" dropdown menu with "SAL_PM2_5_1" and a "Name:" text input field with "SAL_PM2_5_1".
- Display Settings:** Includes a "Date Range:" section with radio buttons for "Last 2 Days" (selected) and "04/13/2012 to 04/13/2012". The "Display:" section has checkboxes for "Graph [Line]" and "Table [Unpivoted]" (checked). The "Filter:" section has checkboxes for "By OC Code [0 - Valid]" and "By Source [Preliminary]".
- Query Settings:** Includes a "Query Type:" dropdown menu set to "Custom". The "Parameter (s):" section has a dropdown menu set to "Current Selection (0 parameters)" and a "Parameter Selector" button. The "Site(s):" section has a dropdown menu set to "Current Selection (0 sites)" and a "Site Selector" button. Below these are "Filtered Data Set(s):" and "Selected Data Set(s):" text areas. The "Selected Data Set(s)" area contains: "Sacramento - Del Paso Manor/PM2.5-88502 - 88502/1 Hr/1" and "Elk Grove/PM2.5-88502 - 88502/1 Hr/1". At the bottom of this section are "Run", "Update", "Delete", "CSV" (dropdown), and "Export" buttons.
- Table Output:** Includes a search bar and a table with columns: Agency, Site, Site AQS, Param, Param AQS, POC, Duration, Date (LST), Value, and Unit. The table contains three rows of data for Agency CA1 at Site Elk Grove.

Buttons for "Enable Editing", "Run", "Update", "Delete", "CSV", and "Export" are visible.

Agency	Site	Site AQS	Param	Param AQS	POC	Duration	Date (LST)	Value	Unit
CA1	Elk Grove	060670011	PM2.5-88502	88502	1	1 Hr	04/26/2012 00:00T-0800	6	UG/M3
CA1	Elk Grove	060670011	PM2.5-88502	88502	1	1 Hr	04/26/2012 01:00T-0800	6	UG/M3
CA1	Elk Grove	060670011	PM2.5-88502	88502	1	1 Hr	04/26/2012 02:00T-0800	8	UG/M3
CA1	Elk Grove	060670011	PM2.5-88502	88502	1	1 Hr	04/26/2012 03:00T-0800	7	UG/M3

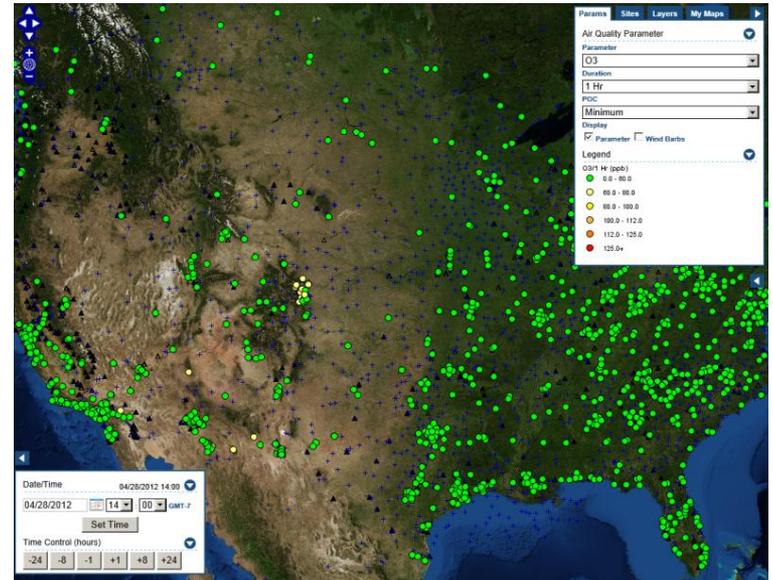
Data Query (2 of 2)



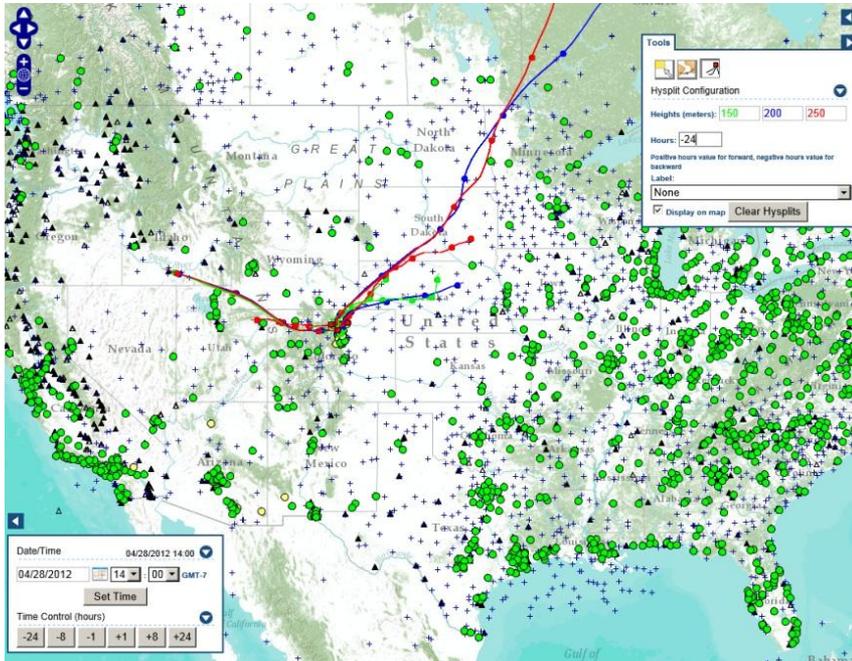
- Edit data values
- Set QC Codes
- Batch edit data and QC Codes
- Filter outputs by QC Code or data source
- Identify QC Codes or data source by table cell styles

Navigator (1 of 2)

- View large map, fill the screen
- Select different base layers
- Show / hide tool panels
- View site details and parameters measured
- Select parameters by name, duration, or POC
- Toggle layers on/off
- View wind barbs
- Navigate through time



Navigator (2 of 2)



- Run HYSPLIT trajectories
- Save multiple map configurations, set a default view
- View Hazard Mapping System fire locations and smoke plumes
- Select satellite data layers including MODIS True Color Imagery and Aerosol Optical Depth

What's Next?

- Work is continuing on AirNow-Tech 2.0
- If you have feedback, ideas, or questions, please contact:
 - Lew Weinstock
 - Steve Ludewig
 - Alan Chanor email ANT2@sonomatech.com

AirNow-Tech 2.0 is scheduled for deployment by September 2012

Data Query Screens (1 of 10)

Welcome, Steven Ludwig! | [My Account](#) | [Sign Out](#)

[Agencies](#) [Sites](#) [Navigator](#) **Data** [Forecasts](#) [Polling](#) [Notifier](#) [EnviroFlash](#) [Resources](#)

My Queries

Select:

Name:

Display Settings

Date Range: Last

to

Display: Graph

Table

Filter: By QC Code

By Source

Query Settings

Query Type:

Parameter (s): [Parameter Selector](#)

Site(s): [Site Selector](#)

Filtered Data Set(s):

Selected Data Set(s):

Data Query Screens (2 of 10)

Parameter Selector

AQS Number: Text Search:

Parameters	Duration	POC
42603 - NOX	6 Min	Minimum
42600 - NOY	10 Min	All
44201 - O3	15 Min	0
STI19 - OC	30 Min	1
81102 - PM10	1 Hr	2
88101 - PM2.5-88101	24 Hrs	3

Select at least one parameter, one duration and one POC from the boxes above.

Filtered Parameters	Selected Parameters
	44201 - O3 - 1 Hr - 1

Parameter List Name:

Data Query Screens (3 of 10)

Welcome, Steven Ludewig! | [My Account](#) | [Sign Out](#)

Agencies Sites Navigator **Data** Forecasts Polling Notifier EnviroFlash Resources

My Queries

Select:

Name:

Display Settings

Date Range: Last Days to

Display: Graph Table

Filter: By QC Code By Source

Query Settings

Query Type:

Parameter (s): [Parameter Selector](#)

Site(s): [Site Selector](#)

Filtered Data Set(s):
North Highlands/O3 - 44201/1 Hr/1
Folsom/O3 - 44201/1 Hr/1
Sloughhouse/O3 - 44201/1 Hr/1
Vacaville/O3 - 44201/1 Hr/1

Selected Data Set(s):
Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1
Auburn/O3 - 44201/1 Hr/1
Elk Grove/O3 - 44201/1 Hr/1

Run Save Delete Export

Data Query Screens (4 of 10)

Display: Graph
 Table

Filter: By QC Code
 By Source

Selected Data Set(s):
Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1
Auburn/O3 - 44201/1 Hr/1
Elk Grove/O3 - 44201/1 Hr/1

Table Output Table Key

Search:

Agency	Site	Site AQS	Param	Param AQS	POC	Duration	Date (LST)	Value	Unit
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 00:00T-0800	2	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 01:00T-0800	29	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 02:00T-0800	29	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 03:00T-0800	27	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 04:00T-0800	21	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 05:00T-0800	14	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 06:00T-0800	19	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 07:00T-0800	24	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/01/2012 08:00T-0800	29	PPB

Data Query Screens (5 of 10)

Table **Pivoted by dataset**

Filter: By QC Code **0 - Valid**

By Source **Preliminary**

Data Set(s):

- Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1
- Elk Grove/O3 - 44201/1 Hr/1
- Folsom/O3 - 44201/1 Hr/1

Table Output Table Key

Search:

Date	Auburn/O3 - 44201/1 Hr/1	Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1	Elk Grove/O3 - 44201/1 Hr/1	Folsom/O3 - 44201/1 Hr/1
04/27/2012 00:00	86	0	29	21
04/27/2012 01:00	93	0	27	17
04/27/2012 02:00	91	0	24	10
04/27/2012 03:00	87	5	7	
04/27/2012 04:00	81	6	14	4
04/27/2012 05:00	74	10	12	2
04/27/2012 06:00	81	8	17	10
04/27/2012 07:00	96	10	22	21
04/27/2012 08:00	103	22	21	27
04/27/2012 09:00	96	28	27	32
04/27/2012 10:00	104	34	33	36
04/27/2012 11:00	42		37	40

Data Query Screens (6 of 10)

export.csv - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View

J23

	A	B	C	D	E	F	G	H	I	J
1	Date (LST)	Time	Time Zone Offset	Auburn/O3 - 44201/1 Hr/1	Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1	Elk Grove/O3 - 44201/1 Hr/1	Folsom/O3 - 44201/1 Hr/1			
2	4/28/2012	8:00	-700	28	28	27	18			
3	4/27/2012	6:00	-700	10	8	81	17			
4	4/27/2012	21:00	-700	6	23	29	33			
5	4/27/2012	16:00	-700	53	48	50	53			
6	4/28/2012	1:00	-700	3	16	14	23			
7	4/27/2012	15:00	-700	52	49	48	54			
8	4/27/2012	18:00	-700	49	32	49	49			
9	4/28/2012	2:00	-700	6	14	12	21			
10	4/27/2012	7:00	-700	21	10	96	22			
11	4/28/2012	10:00	-700	39	39	29	32			
12	4/28/2012	0:00	-700	2	16	14	19			
13	4/28/2012	6:00	-700	10	13	11	14			
14	4/28/2012	11:00	-700			32				
15	4/27/2012	11:00	-700	42		37	40			
16	4/28/2012	7:00	-700	23	25	21	15			
17	4/27/2012	4:00	-700	4	6	81	14			
18	4/27/2012	9:00	-700	32	28	96	27			

Ready | export | 100%

Data Query Screens (7 of 10)

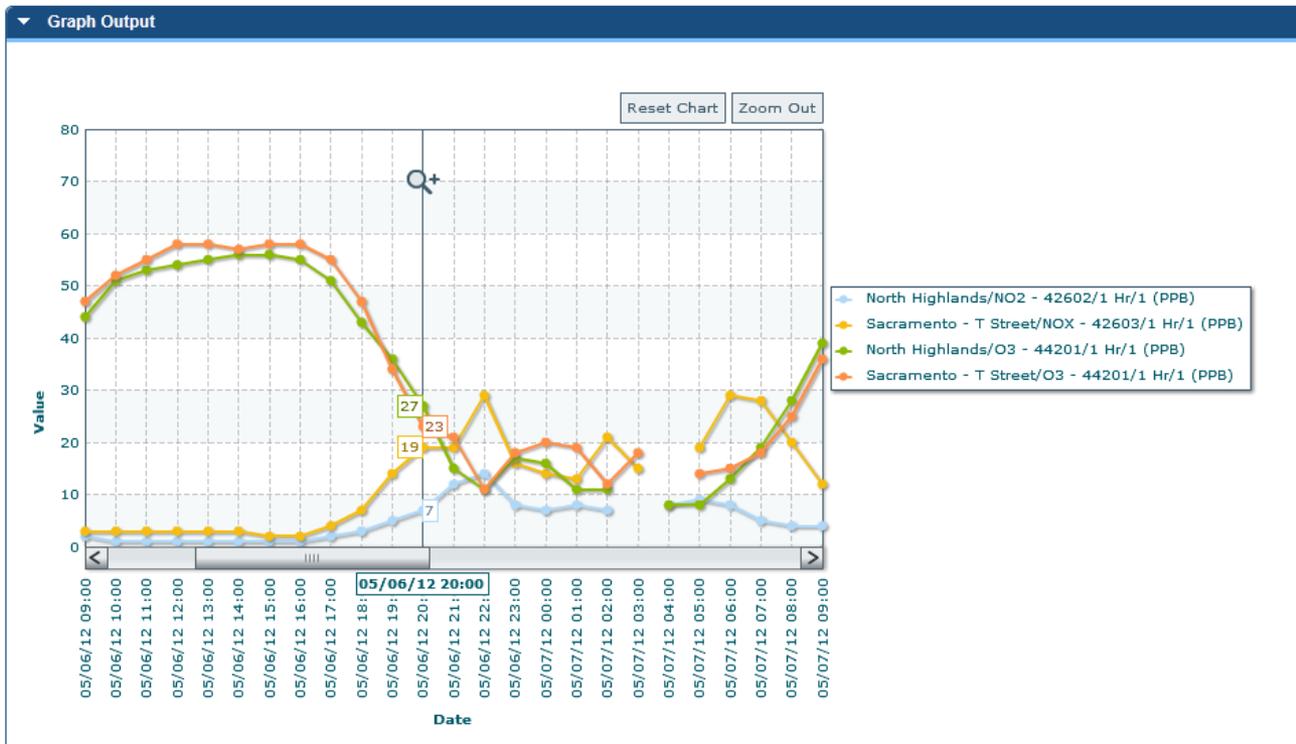
Display: Graph Line Table Unpivoted

Filter: By QC Code 0 - Valid By Source Preliminary

Selected Data Set(s):
 North Highlands/O3 - 44201/1 Hr/1
 North Highlands/NO2 - 42602/1 Hr/1
 Sacramento - T Street/NOX - 42603/1 Hr/1
 Sacramento - T Street/O3 - 44201/1 Hr/1

Run Update Delete CSV Export

Enable Editing



Data Query Screens (8 of 10)

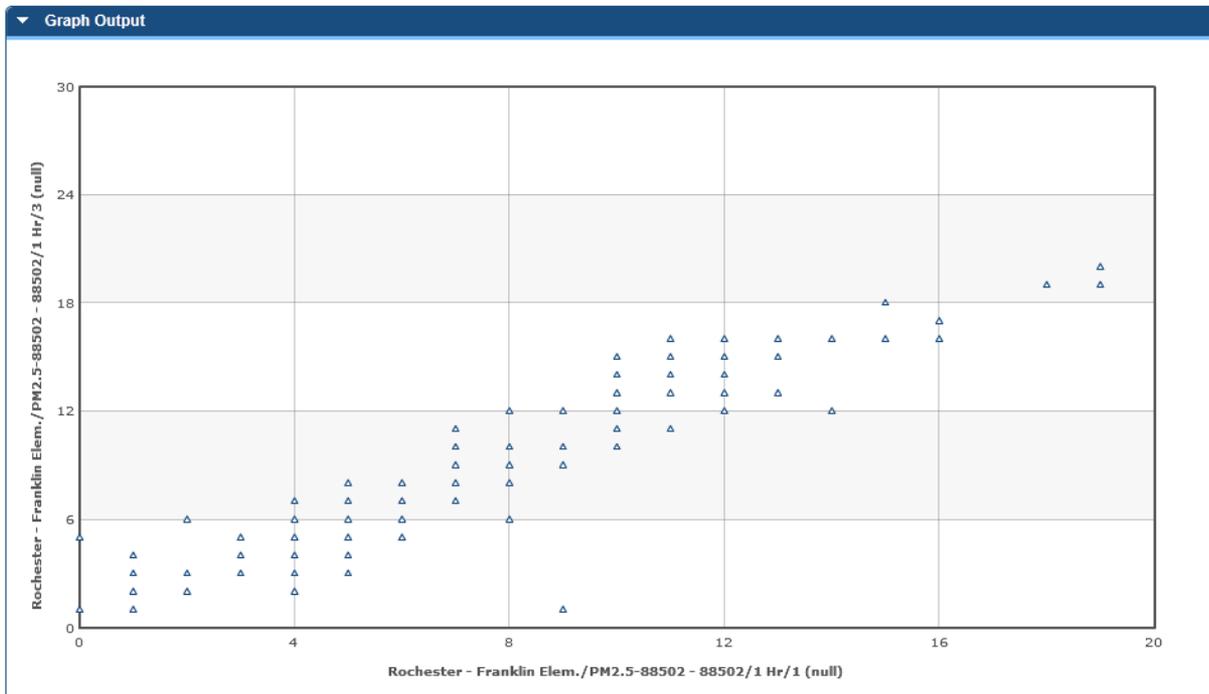
Graph Settings

Scatter Plot

Controls:

X-Axis Dataset: Rochester - Franklin Elem./PM2.5-88502 - 88502/1 Hr/1

Y-Axis Dataset: Rochester - Franklin Elem./PM2.5-88502 - 88502/1 Hr/3



Data Query Screens (9 of 10)

Display: Graph
 Table

Filter: By QC Code
 By Source

Selected Data Set(s):
 Auburn/O3 - 44201/1 Hr/1
 Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1
 Elk Grove/O3 - 44201/1 Hr/1

Table Output Table Key

Search:

Agency	Site	Site AQS	Param	Param AQS	POC	Duration	Date (LST)	Value	Unit
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 00:00T-0800	300	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 01:00T-0800	27	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 02:00T-0800	21	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 03:00T-0800	23	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 04:00T-0800	22	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 05:00T-0800	19	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 06:00T-0800	21	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 07:00T-0800	30	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 08:00T-0800	33	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 09:00T-0800	35	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 10:00T-0800	40	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 11:00T-0800	43	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 12:00T-0800	44	PPB

Data Query Screen (10 of 10)

Display: Graph Line
 Table Unpivoted

Filter: By QC Code 0 - Valid
 By Source Preliminary

Selected Data Set(s): Auburn/O3 - 44201/1 Hr/1
 Sacramento - Del Paso Manor/O3 - 44201/1 Hr/1

Buttons: Delete CSV Export

Disable Editing

Editing Site: Auburn
Date: 05/05/2012 00:00T-0800
Parameter: O3 - 060610002/1 Hr/1/PPB

QC Code:

Value:

Save Cancel

Table Output

Search:

Agency	Site	Site AQS	Param	Param AQS	POC	Duration	Date (LST)	Value	Unit
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 00:00T-0800	300	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 01:00T-0800	27	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 02:00T-0800	21	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 03:00T-0800	23	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 04:00T-0800	22	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 05:00T-0800	19	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 06:00T-0800	21	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 07:00T-0800	30	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 08:00T-0800	33	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 09:00T-0800	35	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 10:00T-0800	40	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 11:00T-0800	43	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/05/2012 12:00T-0800	44	PPB

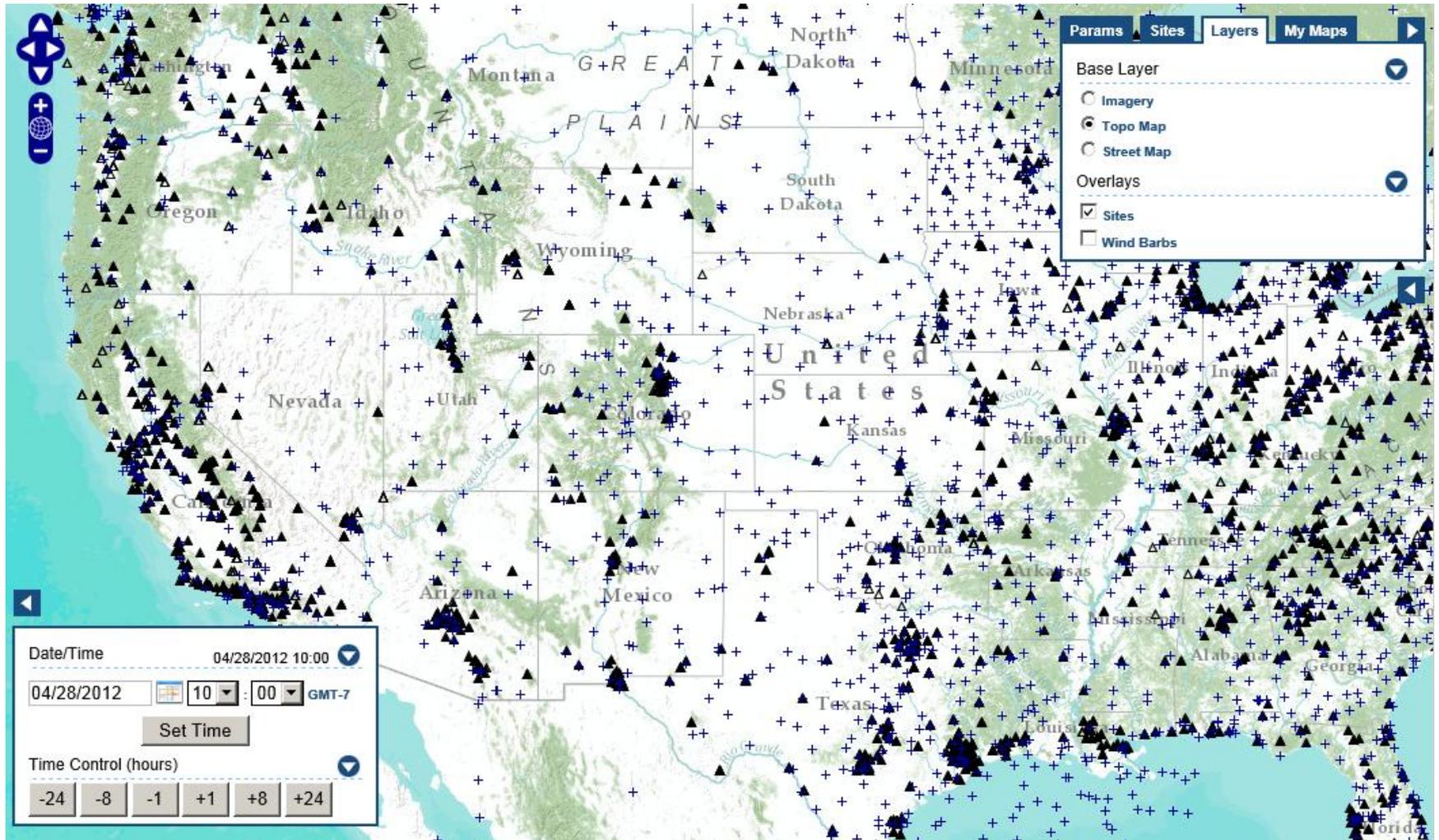
Table Key

Navigator Screens (1 of 10)

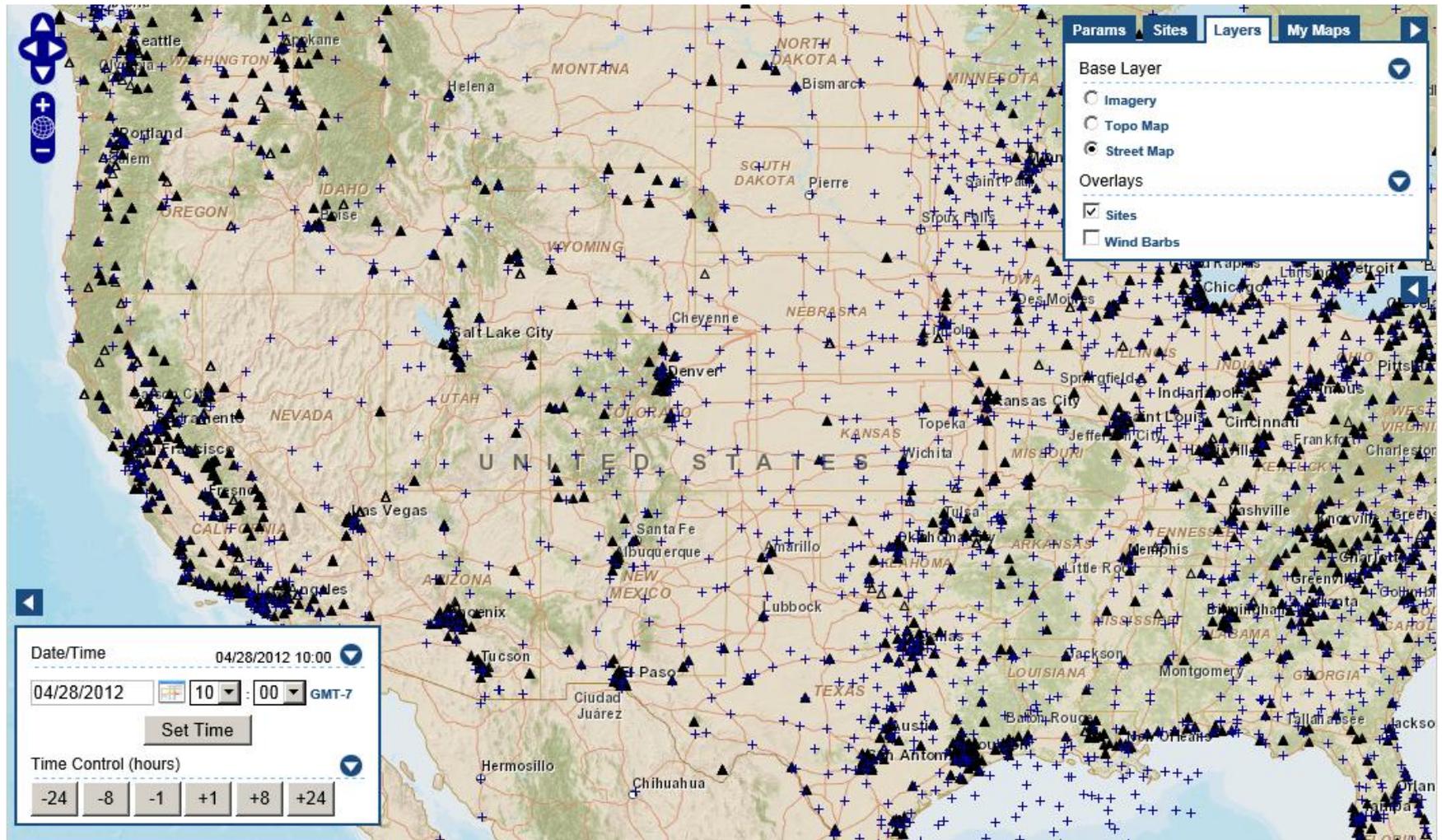
The screenshot displays the Navigator application interface. The main area is a map of the United States, densely populated with blue and black markers representing data points. The interface includes several control panels:

- Top Panel:** Contains tabs for "Params", "Sites", "Layers", and "My Maps".
- Right Panel:** A settings menu for "Air Quality Parameter" with the following options:
 - Parameter: Please select one
 - Duration: 1 Hr
 - POC: Minimum
 - Display: Parameter Wind Barbs
 - Legend: (dropdown arrow)
- Bottom Left Panel:** A date and time control panel with the following options:
 - Date/Time: 04/28/2012 10:00
 - Time input: 04/28/2012, 10:00 GMT-7
 - Set Time button
 - Time Control (hours): -24, -8, -1, +1, +8, +24
- Map Controls:** A vertical navigation bar on the left side with a compass, zoom in (+) and zoom out (-) buttons, and a globe icon.

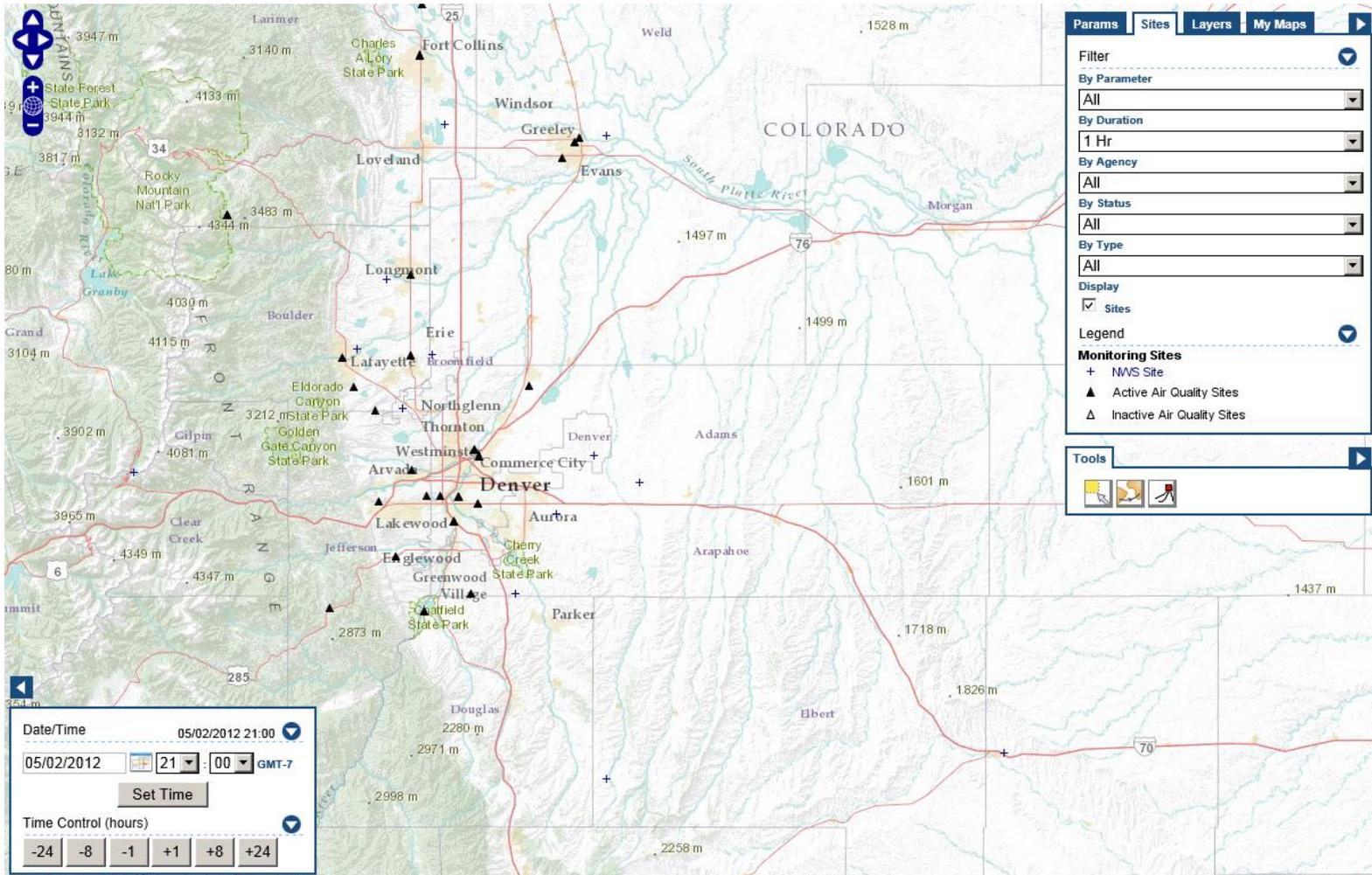
Navigator Screens (2 of 10)



Navigator Screens (3 of 10)



Navigator Screens (4 of 10)



Navigator Screens (5 of 10)

Tools

Site Info

Name: Denver Animal Shelter - 678 S.
 Jason St.
 AQS Code: 080310025
 Agency: Colorado Department of Public Health and Environment
 State: Colorado
 County: Denver Animal Shelter - 678 S.
 Jason St.
 CBSA: Denver-Aurora, CO
 Region: EPA Region 8 - Rocky Mountains and Plains
 Site Location: 39.7,-105

Parameters

O3/1 Hr/1	40 PPB
AIRNowPM/1 Hr/1	5.4 UG/M3
AIRNowPM/24 Hrs/1	Unavailable
AIRNowPM/Noon to Noon/1	Unavailable
PM10/1 Hr/1	24.9 UG/M3
PM10/24 Hrs/1	Unavailable
CO/1 Hr/1	0.1 PPM
SO2/1 Hr/1	Unavailable
PM2.5-88502/1 Hr/1	5.4 UG/M3
PM2.5-88502/24 Hrs/1	Unavailable
PM2.5-88502/Noon to Noon/1	Unavailable

Date/Time 05/02/2012 21:00

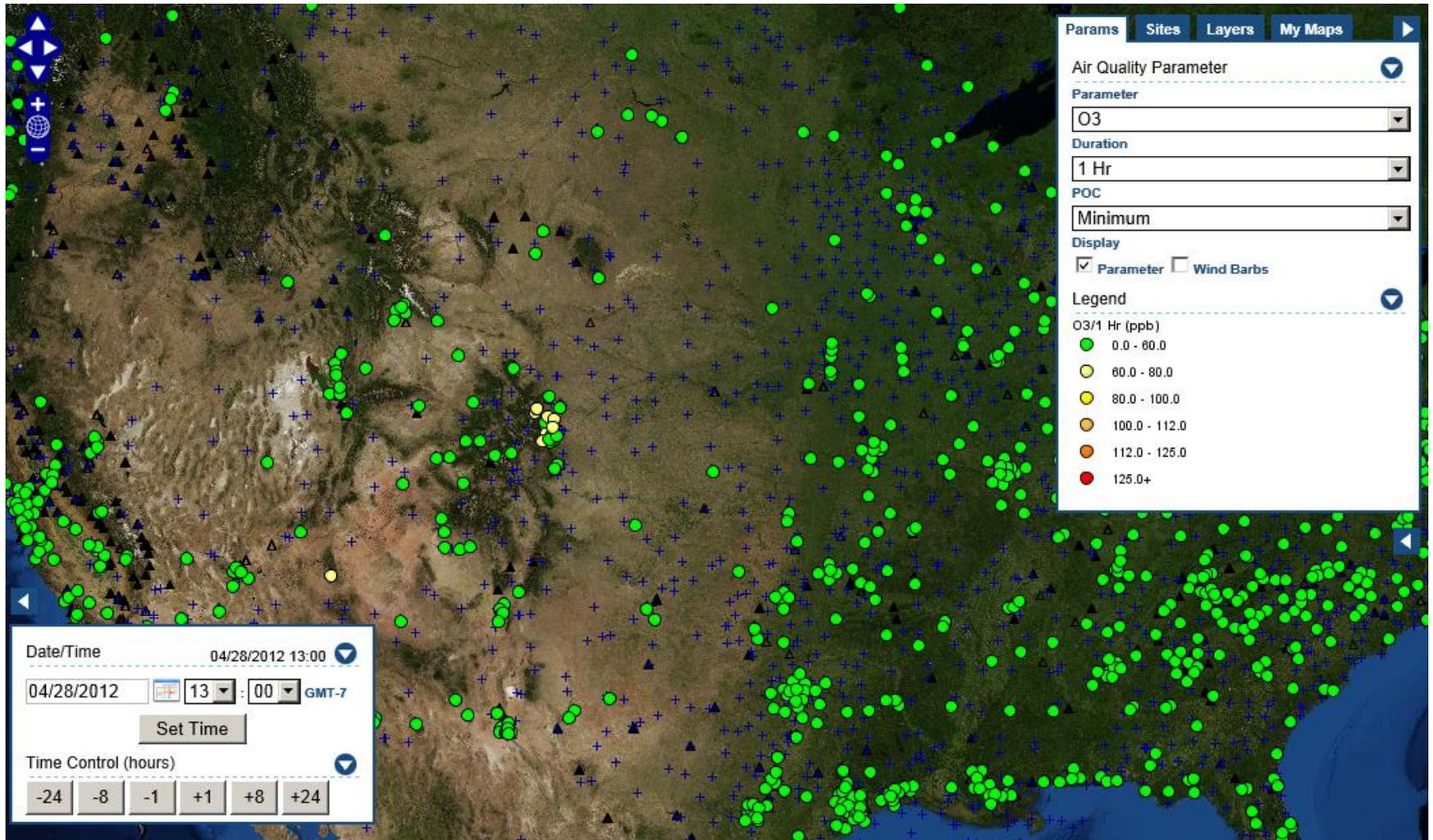
05/02/2012 21:00 GMT-7

Set Time

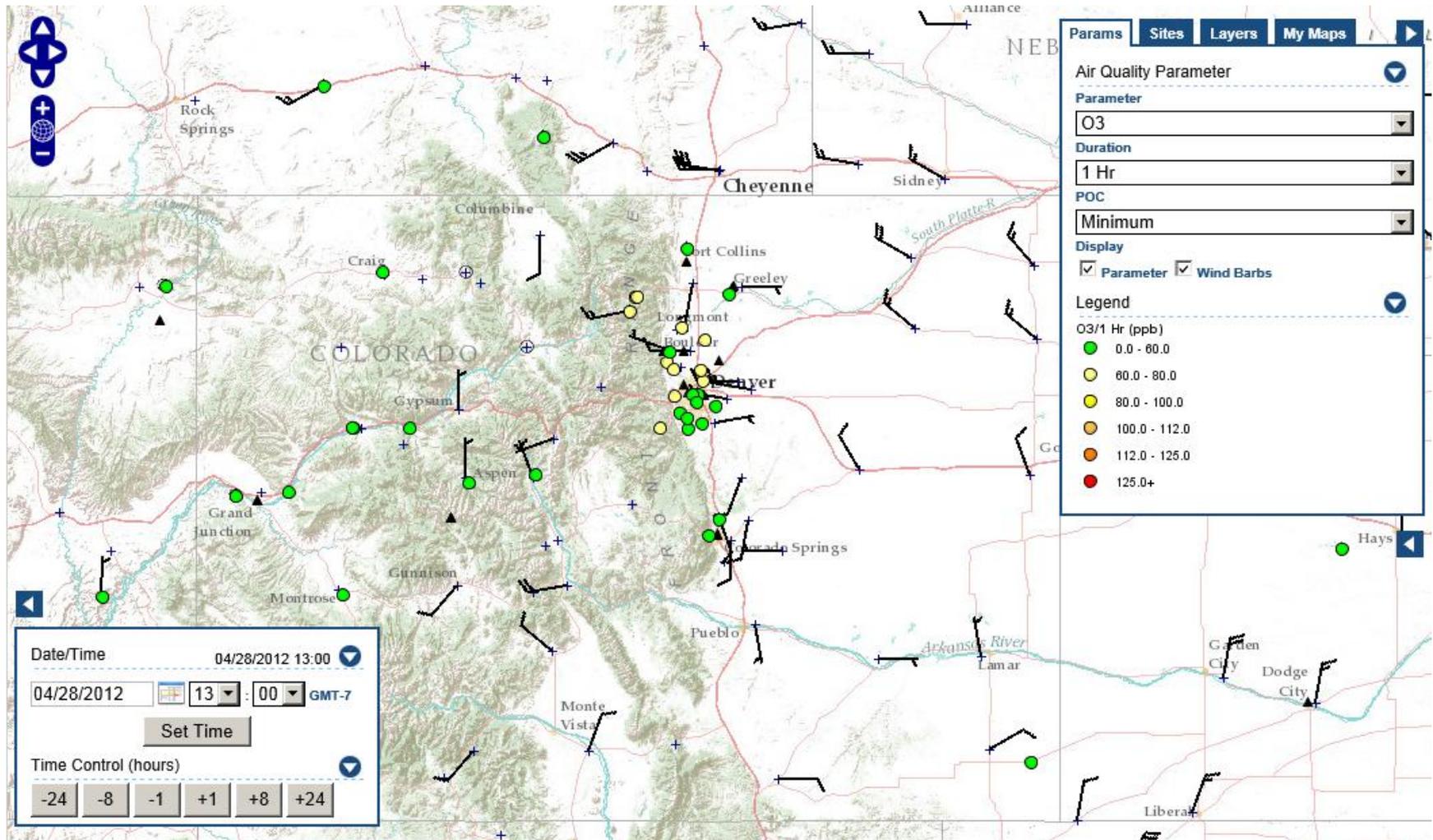
Time Control (hours)

-24 -8 -1 +1 +8 +24

Navigator Screens (6 of 10)



Navigator Screens (7 of 10)

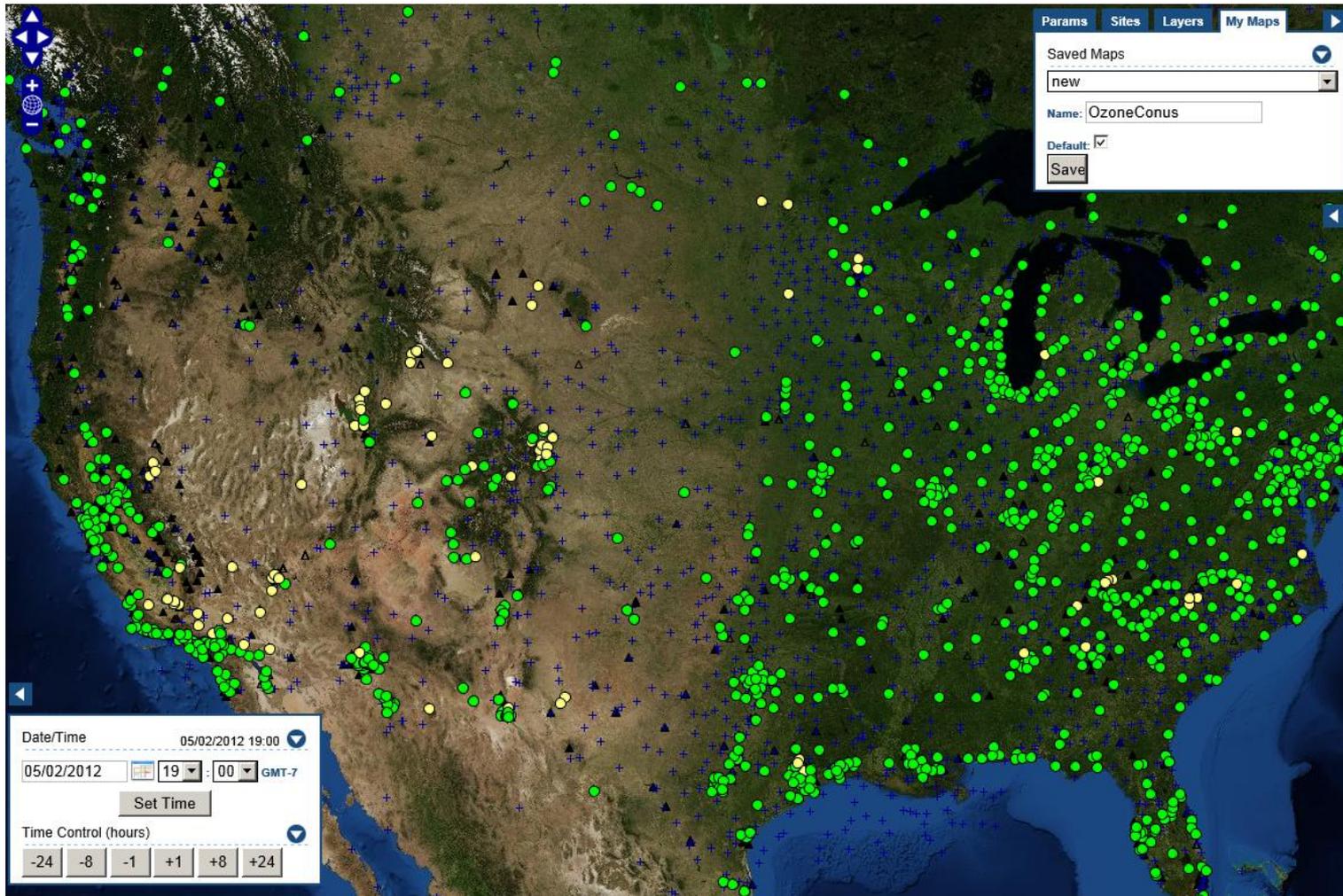


Navigator Screens (8 of 10)

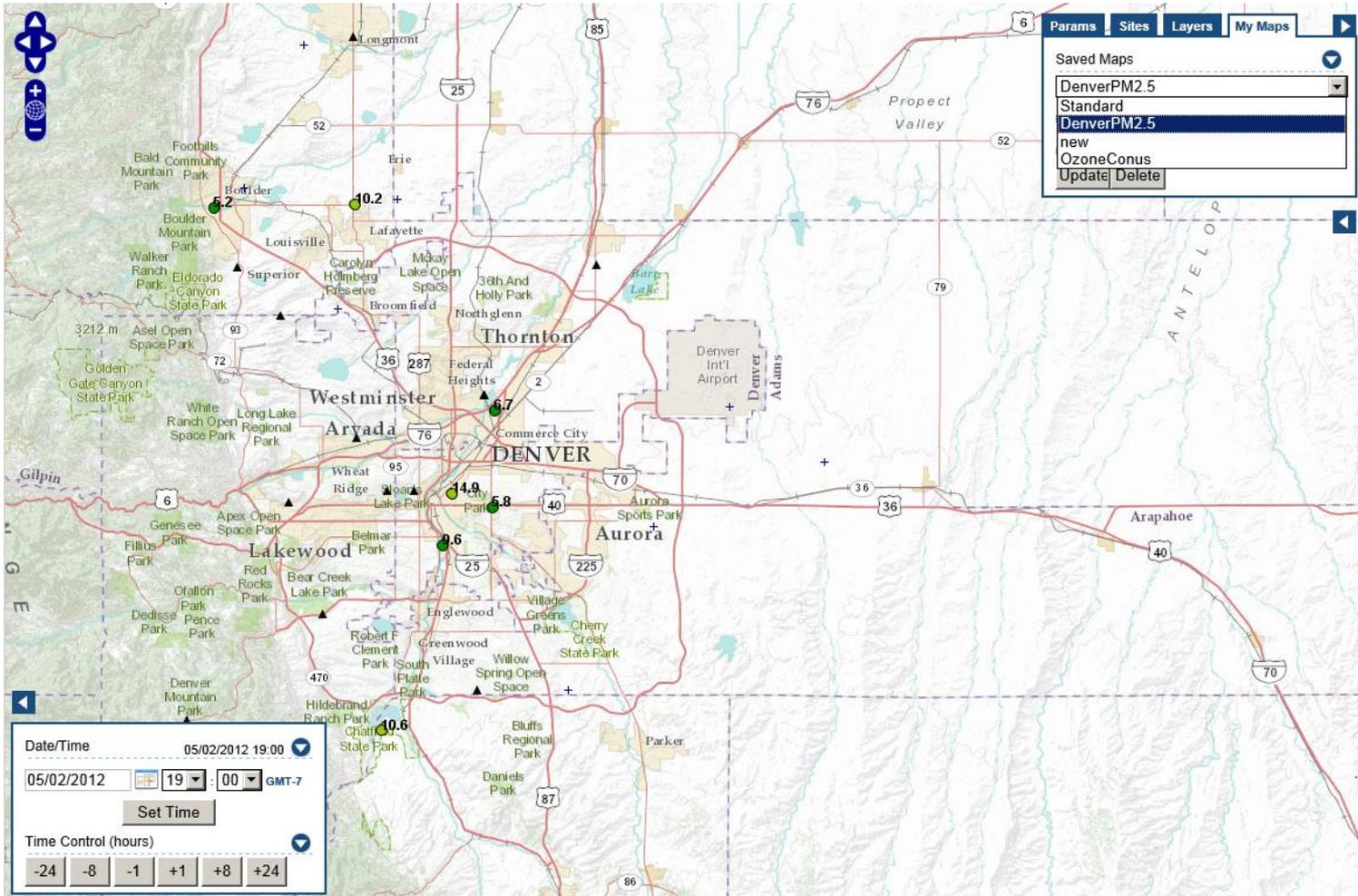
The screenshot displays a navigation application interface. The main map shows a route through the Denver metropolitan area, with various points of interest and elevation markers. The route is highlighted in red and green, with elevation values such as 58.9, 59.1, 61.0, 57.6, 57.0, 58.0, 59.0, 54.5, 57.5, 60.0, 54.0, and 61.0. The map includes labels for cities like Boulder, Westminster, Arvada, Denver, and Aurora, as well as parks and landmarks like Denver Int'l Airport. The interface includes several control panels:

- Top Left:** Navigation controls including a compass, a globe icon, and a zoom-in (+) button.
- Bottom Left:** Date/Time panel showing "05/06/2012 10:00" with a dropdown arrow. Below it, a time selection panel with "05/06/2012", a calendar icon, "10" (hours), "00" (minutes), and "GMT-7" (time zone). A "Set Time" button is present. Below that, a "Time Control (hours)" panel with buttons for "-24", "-8", "-1", "+1", "+8", and "+24".
- Top Right:** A "Tools" panel with a "Project" label and three icons (a map, a globe, and a person). Below it, a "HYSPLIT Configuration" panel with a dropdown arrow. It includes "Heights (meters):" with buttons for "100", "500", and "1000". A "Hours:" field is set to "24". A note states: "Positive hours value for forward, negative hours value for backward". A "Label:" dropdown menu is set to "None". A checkbox "Display on map" is checked, and a "Clear" button is next to it.

Navigator Screens (9 of 10)



Navigator Screens (10 of 10)



What's Next?

- Work is continuing on AirNow-Tech 2.0
- If you have feedback, ideas, or questions, please contact:
 - Lew Weinstock
 - Steve Ludewig
 - Alan Chanor email ANT2@sonomatech.com

AirNow-Tech 2.0 is scheduled for deployment by September 2012