



Air Explorer

Your Access to Air Quality Visualization Tools

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Outline

- What is Air Explorer?
- Why was Air Explorer created?
- How was Air Explorer created?
- What are the benefits of Air Explorer?
- Let's Demo Air Explorer!



What is Air Explorer?

- Web-Based Tools
 - maps, graphs, data tables
- Access AQS Data



Why was Air Explorer created?

- Develop tools for routine and exploratory analyses that provide relevant results
- Extend access to our partners in the health, science, and academic communities
- Bottom line, provide access to extremely relevant, high quality information



How was Air Explorer created?

- Build Dynamic Web Application
- Use Existing SAS Technology



What are the Products/Benefits of Air Explorer?

- Powerful analytical tools
- Interactive, portable results
- Exploratory analysis capabilities
- Relevant information
- Less time generating results
- More time interpreting & sharing results
- Broad access to tools
- Only need a Web browser



Demo Time!!

- <http://www.epa.gov/airexplorer>



Extra Slides

Introducing Air Explorer

U.S. Environmental Protection Agency

AIR Explorer

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Air Explorer is a collection of user-friendly visualization tools for air quality analysts. The tools generate maps, graphs, and data tables dynamically. Currently, the tools access ambient concentration data from EPA's [Air Quality System \(AQS\)](#). The criteria pollutant data were updated on March 2, 2006. The PM2.5 speciation data were updated on March 8, 2006. The benzene data were updated on February 25, 2005. This is a developmental site. We are continually designing and implementing innovative tools for analyzing and communicating air quality information.

UPDATE (3/8/2006) The PM2.5 speciation data were updated.
UPDATE (3/2/2006) The criteria pollutant data were updated.

MAPS

Map One Day
Generate a three-dimensional, interactive map of daily pollutant concentrations

Map Several Days
Generate an animated series of daily concentration maps for a specific time period

Tile AQI Values
Plot daily AQI values for a specific location and time period

GRAPHS

Plot Concentrations
Generate a time series plot for a specific location and time period

Plot AQI Values
Plot PM2.5 and Ozone AQI values for a specific location and time period

Plot Speciation Data
Plot daily PM2.5 speciation data for a specific location and time period

Plot Benzene Data
Generate a time series plot or download data for all monitoring sites for a specific state

DATA

Query Concentrations
View or download daily concentrations for a specific location and time period

Query Speciation Data
View or download daily PM2.5 speciation data for a specific location and time period

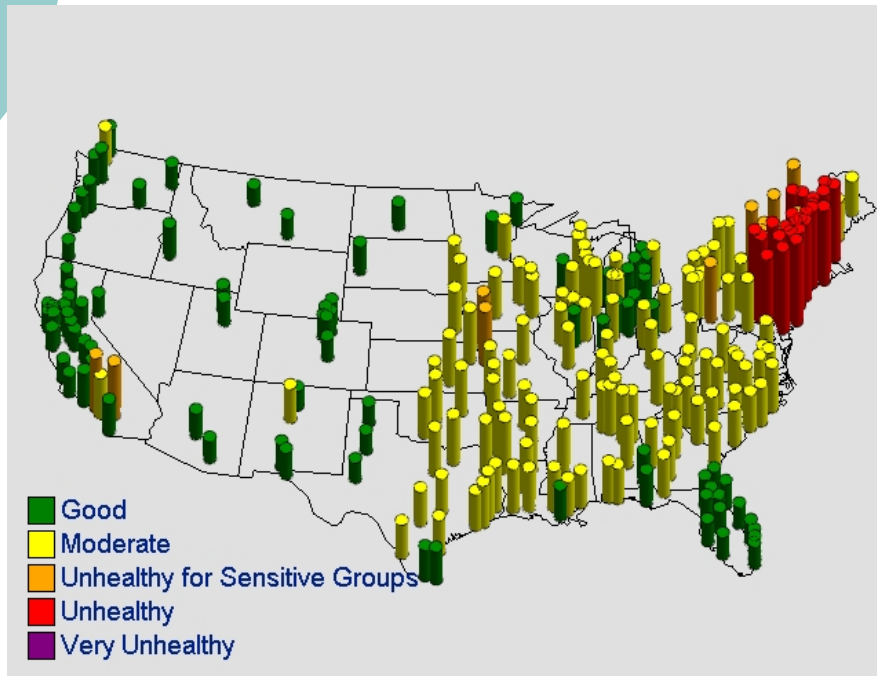
Query Benzene Data
View or download benzene data for a specific location

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- Powerful Web-driven analytical tools
- Generates output dynamically
- Now available to air quality analysts everywhere

The Examples

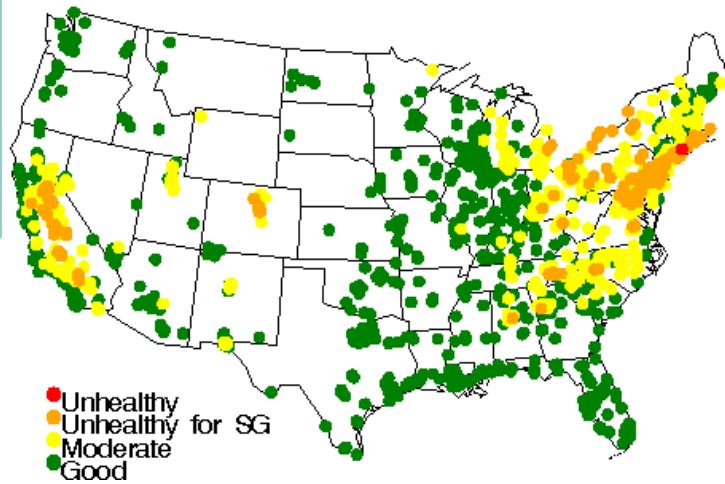
PM2.5 AQI Values by MSA on 07/07/2002



- You can map daily AQI levels for any pollutant, any day.
- Rotate, zoom, and other interactive features available

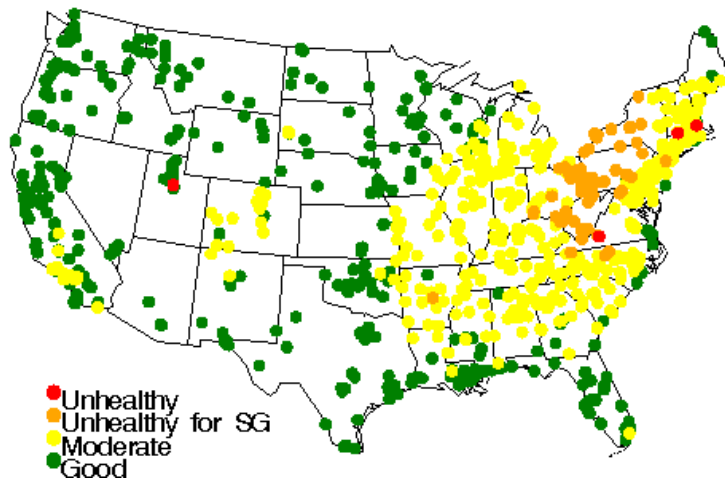
The Examples

Ozone AQI Levels – 07/01/2002

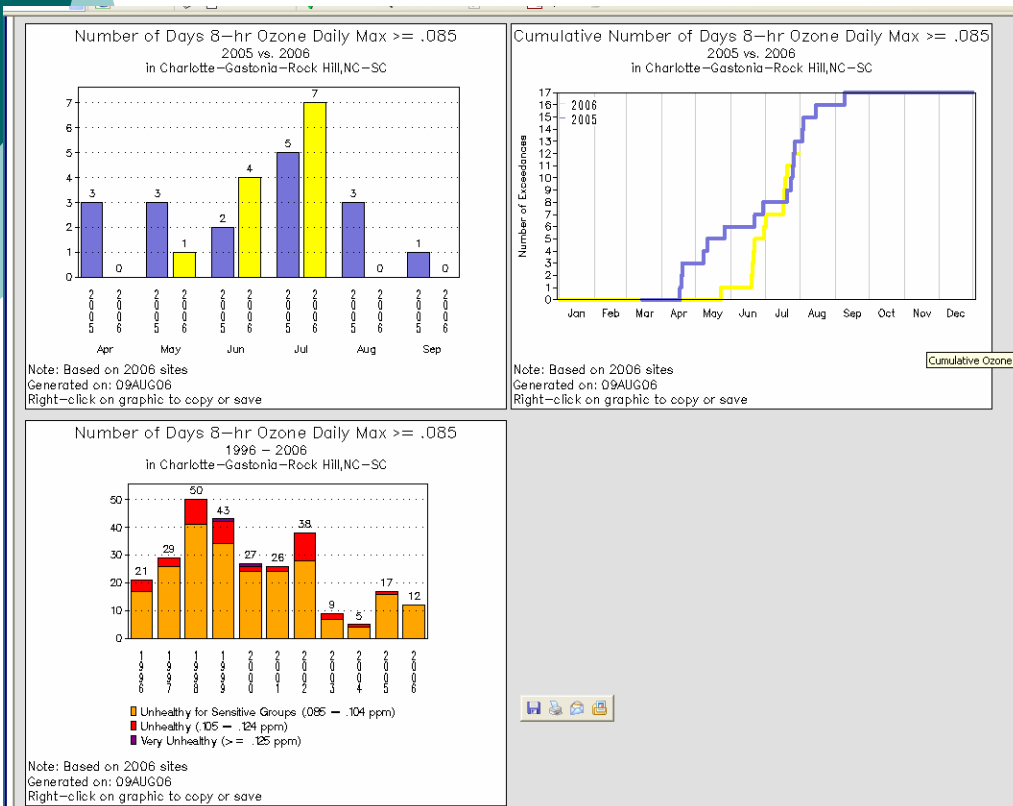


- You can view daily animations for multiple pollutants for any time period

PM2.5 AQI Levels – 07/01/2002



The Examples

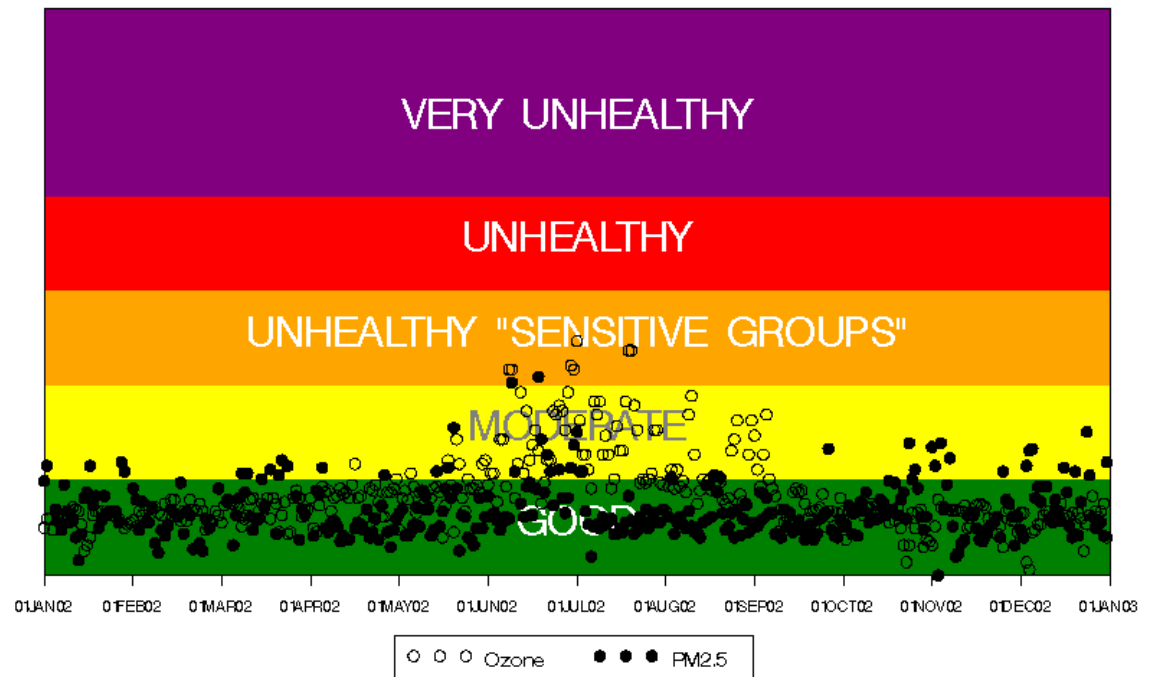


- You can compare the number of ozone 8-hr “exceedances” in the current year with any year or 3-year period, for any area
- The current data year’s data is AIRNow data

The Examples

- You can plot daily PM2.5 and ozone AQI values for any city, any time period

Daily Ozone and PM2.5 AQI Values from 01/01/02 to 12/31/02
Denver, CO

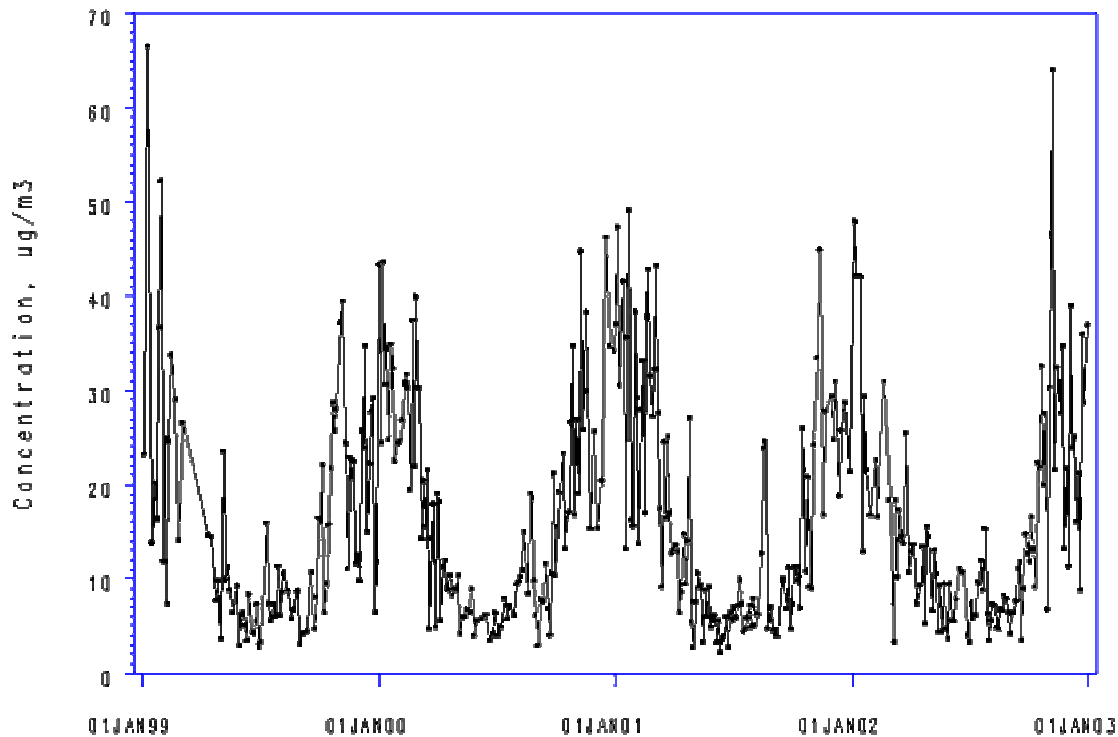


Source: EPA's Air Explorer (<http://www.epa.gov/airexplorer/>)
Generated on: 09AUG05

The Examples

Daily PM2.5 Concentrations from 01/01/99 to 12/31/03

STATE_NAME=MONTANA COUNTY_NAME=LINCOLN MSA_NAME=Not in a MSA SITE=300530018 POC=1



- You can plot daily concentrations for any city, any pollutant, any time period

Source: EPA's Air Explorer (<http://intranet.epa.gov/air/explorer/>)
Generated on: 29OCT03

The Examples

DATE	SITE	POC	STATE_NAME	COUNTY_NAME	MSA	MSA_NAME	PM2.5 F
1/3/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	7.5
1/12/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	8.1
1/15/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	11
1/18/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	12.5
1/21/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	13.7
1/24/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	12.1
1/27/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	14.3
1/30/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	12.7
2/2/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	13.4
2/5/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	7.1
2/8/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	11
2/11/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	11.1
2/14/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	18
2/17/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	10.7
2/20/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	19.8
2/23/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	6.4
2/26/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	19.2
3/1/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	10.5
3/4/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	14.4
3/7/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	10.7
3/10/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	10.3
3/13/2003	130890002	5	GEORGIA	DE KALB	520	Atlanta,GA	18.8

- You can download daily concentrations for any city, any pollutant, any time period



The End

- Do you have questions, suggestions for new tools that would be a help to you, comments on how to improve existing tools? If so contact...
 - David Mintz, 919-541-5224, mintz.david@epa.gov
 - Lance McCluney, 919-541-4820, mccluney.lance@epa.gov



Demo Time!!

- <http://www.epa.gov/airexplorer>