IMPROVE's Evolution

- Data
- Tools
- Publications
- Special Studies
- Education
- Activities

http://vista.cira.colostate.edu/IMPROVE

VIEWS

VIEWS
Visibility Information Exchange Web System

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Air Quality Data, Tools, & Resources

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VIEWS is an online system of tools and resources designed to provide easy access to a wide variety of air quality data. An advanced data acquisition and import system is used to integrate data from dozens of sources into a single, highly-optimized data warehouse in order to enable users to analyze datasets of widely-varying origin in a consistent, unified manner with a common set of tools and web services. More information...

Air Quality Data

- Query Wizard
- Data Files
- Dataset Inventory
- Network Browser
- Site Browser
- Summary Data

Air Quality Tools

- Contour Maps
- Trends Analysis
- Composition Analysis
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- Air Quality Index Maps

Air Quality Resources

- Documents
- Webcams
- Photographs
- Glossary
- Links
- Developers

News and Notes

08.31.2007 - *New page:* Dataset Index

A comprehensive list of the datasets available on VIEWS is being developed. When complete, these Dataset Descriptions will contain complete information on each individual dataset, including the parameters measured, the geographical extent, the frequency and duration of observations, the sampling and analysis methods used, and how to find and access the data on the VIEWS website. An incomplete, draft version of the index can be found here.

04.13.2007 - *New data:* IMPROVE RHR2 Data

New Regional Haze Rule data is available in raw form here. (See the note below for FTP login information.) NOTE: This data has not been imported into the integrated database yet, but is available in raw *.csv format in the meantime. If you have any questions about this data, please contact us. Thank you!

04.12.2007 - *Important Note:* FTP Site Restrictions

Due to problems with unauthorized access we can no longer allow anonymous access to our public FTP site. From now on, you will be prompted to login when accessing FTP resources, so please use the following information to do so: Username: cira\guest, Password: orion. Thank you!

10.24.2006 - IMPROVE Steering Committee Meeting 2006

Final summary of the Sept 26-28 IMPROVE Steering Committee meeting Meeting Summary.

Air Quality and Environmental Science News

Melting Of The Greenland Ice Sheet Mapped *(Thu, 17 Sep 2009 02:00:00 EDT)*

Will all of the ice on Greenland melt and flow out into the sea, bringing about a colossal rise in ocean levels on Earth, as the global

Data Updates

- *08/31/07* IMPROVE Aerosol, Raw — *June through August, 2006*
- *08/31/07* IMPROVE Aerosol, Prelim. — *June through August, 2006*
- *08/31/07* IMPROVE Nephelometer — *January through March, 2007*
- *08/31/07* IMPROVE Aerosol, Raw — *June through August, 2006*
- *08/31/07* IMPROVE Aerosol, Prelim. — *June through August, 2006*
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- *08/31/07* IMPROVE Aerosol, Prelim. — *June through August, 2006*

Features

Natural Haze Levels II Data:

The 2nd version of the natural haze level II estimates based on the work of the Natural Haze Levels II Committee.

IMPROVE Data Update and Archival Protocol:

A summary of the procedures used by NPS/CIRA to update and archive IMPROVE data.

IMPROVE Substituted Data:

Data that has been substituted for missing sample days at various IMPROVE Sites that experienced data completeness issues with regard to the RHR guidance for determining baseline conditions.

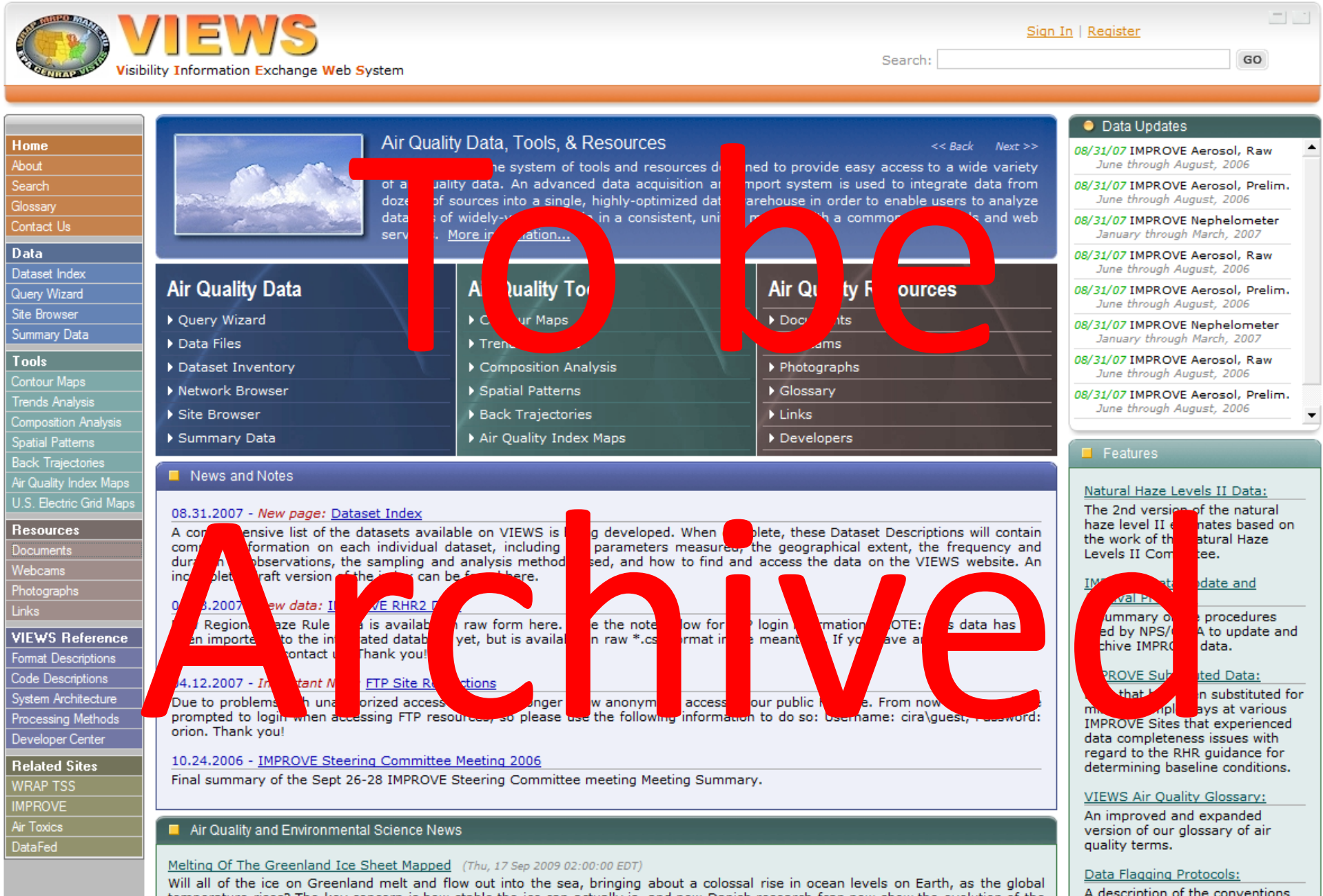
VIEWS Air Quality Glossary:

An improved and expanded version of our glossary of air quality terms.

Data Flagging Protocols:

A description of the conventions

VIEWS



To be Archived

FED

FEDERAL LAND MANAGER ENVIRONMENTAL DATABASE

Monday, October 18, 2010

Search

Other search tools: Dataset index | Site browser

News

Alpha version of the FED now available

The first draft version of the FED website and database is now available for limited exploration and testing.

VIEWS database cloned for use by the FED

The FED was initially created by making a "clone" of the VIEWS Integrated Database without satellite and modeled datasets.

New and updated datasets will be imported

During the first phase of FED development, selected datasets will be updated and new datasets will be added.

Data

Use the Data Wizard for selecting raw data

The FED Data Wizard is currently identical in functionality to the previous VIEWS Data Wizard.

The Oct - Dec 2009 IMPROVE data is coming

As soon as the IMPROVE data for October - December 2009 is delivered, it will be added to the FED database.

Data Item #3

Some description goes here...

Local Air Quality

Select a Dataset: IMPROVE Aerosol

Select a Start Year: 2008

Select an End Year: 2009

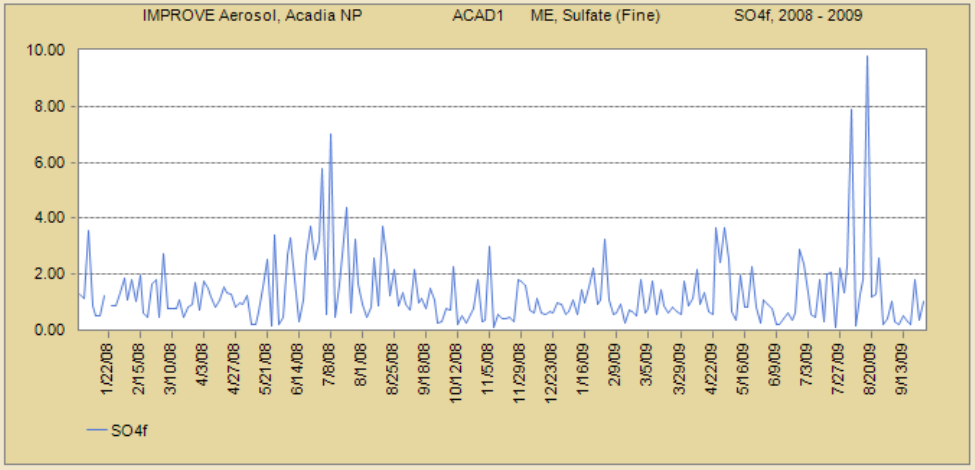
Select a Site:

Site	Code	ST
Acadia NP	ACAD1	ME
Addison Pinnacle	ADPI1	NY
Agua Tibia	AGTI1	CA
Ambler	AMBL1	AK
Arches NP	ARCH1	UT
Arendtsville	AREN1	PA
Atlanta	ATLA1	GA

Select Parameters:

Parameter	Code
Selenium (Fine)	SEf
Silicon (Fine)	SIf
Sodium (Fine)	NAf
Soil (Fine)	SOILf
Soil Extinction (Fine)	SOILf_bext
Strontium (Fine)	SRf
Sulfate (Fine)	SO4f

For more advanced options in selecting and filtering data, visit the Query Wizard...



Geolocation

Latitude:	40.592
Longitude:	-105.129
City:	Fort Collins
Region:	CO
Country:	USA
ZipCode:	80523
AreaCode:	970
Domain:	COLOSTATE.EDU
ISP:	COLORADO STATE UNIVERSITY
TimeZone:	-07:00
Weather Station:	FORT COLLINS (USCO0140)
Forecast:	Weather Underground

Featured Substance

Titanium dioxide

Name:	Titanium dioxide
FormulaHTML:	O_2Ti
CASNum:	13463-67-7
ACXNumber:	X1002582-6
Density:	4.26
DOTNumber:	2546 37
Comments:	White powder, odorless
MolecularWeight:	79.8658
MeltingPoint:	1855
BoilingPoint:	2900
WaterSolubility:	insoluble. <0.1 g/100 mL at 20 C

Featured Term

Visibility indexes

Have been formalized for aerosol, optical, and scenic attributes. Aerosol indexes include mass concentrations,

Datasets to be included

- IMPROVE aerosol data
- Forest Service NRIS-Water quality data
- hourly ozone concentrations (ppb) from continuous ozone monitors, including all EPA/AQS monitors, CASTNET monitors, NPS portable ozone monitors, 1988 to present
- weekly passive ozone concentrations (ppb) from NPS passive ozone samplers
- hourly meteorological parameters, including temperature, relative humidity, scalar wind speed, scalar wind direction, vector wind speed, vector wind direction, dew point, solar radiation, rainfall, and barometric pressure
- hourly $PM_{2.5}$ concentrations
- hourly PM_{10} concentrations
- hourly NO_2 concentrations
- hourly SO_2 concentrations
- hourly CO concentrations
- CASTNET model estimates for hourly concentrations, dry deposition velocity, and dry deposition flux
- weekly wet deposition concentrations, including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg (mg/l and meq/l)
- weekly wet deposition, including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg (kg/ha)
- nephelometer visibility measurements
- Night sky brightness imagery

Derived Values

- **IMPROVE Derived Vales and Statics:**
- missing data estimated using algorithms specified in the Regional Haze Rule guidance documents
- daily IMPROVE ambient particulate concentrations for ammonium nitrate, ammonium sulfate, coarse material, soil, organic mass, soot, sea salt, gravimetric $PM_{2.5}$, and gravimetric PM_{10}
- daily IMPROVE extinction estimates for ammonium nitrate, ammonium sulfate, coarse material, soil, organic mass, soot, sea salt, Rayleigh, total extinction, and deciview
- daily IMPROVE visibility estimates in kilometers
- annual mean, best days, median days, and worst days IMPROVE ambient particulate concentrations for ammonium nitrate, ammonium sulfate, coarse material, soil, organic mass, soot, sea salt, gravimetric $PM_{2.5}$, and gravimetric PM_{10}
- 3- and 5-year averages of annual mean, best days, median days, and worst days IMPROVE ambient particulate concentrations for gravimetric $PM_{2.5}$
- annual mean, best days, median days, and worst days IMPROVE extinction estimates for ammonium nitrate, ammonium sulfate, coarse material, soil, organic mass, soot, sea salt, Rayleigh, total extinction, and deciview
- annual mean, best days, median days, and worst days IMPROVE visibility estimates in kilometers

- **Ozone Statistics**
- daily maximum 1-hour ozone concentrations
- annual maximum 1-hour ozone concentrations
- annual 2nd highest 1-hour ozone concentrations
- 3- and 5-year means of the annual 2nd highest 1-hour ozone concentration
- daily maximum 8-hour ozone concentrations (calculated in accordance with EPA protocols)
- annual maximum, 2nd highest, 3rd highest, and 4th highest 8-hour ozone concentrations, occurring during the local ozone monitoring season (determined in accordance with EPA protocols)
- 3- and 5-year averages of the annual maximum, 2nd highest, 3rd highest, and 4th highest 8-hour ozone concentrations
- 3-year average of the annual 4th highest 8-hour ozone concentrations (determined in accordance with EPA protocols)
- 5-year average of the annual 4th highest 8-hour ozone concentrations
- annual 90th percentile of 1-hour ozone concentrations
- 3- and 5-year averages of the annual 90th percentile of 1-hour ozone concentrations
- annual highest 3-month maximum ozone SUM60 (calculated in accordance with EPA protocols)
- 3- and 5-year averages of the annual highest 3-month maximum ozone SUM60
- annual highest 3-month maximum ozone W126 sum (calculated in accordance with EPA protocols)
- 5-year averages of the annual highest 3-month maximum ozone W126 sum
- 3-year average of the annual highest 3-month maximum ozone W126 sum (calculated in accordance with EPA protocols)
- annual mean 1-hour ozone concentration
- annual mean 1-hour ozone concentration, calculated over the ozone season
- 5-year average 1-hour ozone concentration
- number of hours with 1-hour ozone concentration over 100 ppb during ozone season

- **Dry and Wet Deposition Statistics**
- annual mean deposition concentrations, including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg (mg/l and meq/l)
- 3- and 5-year averages of annual mean deposition concentrations (mg/l), including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg
- annual total wet deposition, including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg
- 3- and 5-year averages of annual total wet deposition, including Ca, Cl, K, Mg, Na, NH_4, NO_3, SO_4, and Hg

- **Trend Statistics**
- trend slope and p-value for monitors in and near parks, including 10-year trends for 3-year averages of the annual 4th highest 8-hour ozone, and annual wet deposition concentrations of NH_4, NO_3, and SO_4, and visibility conditions on the best and worst days
- annual values used to compute 10-year trend slopes

- **Other Derived Datasets**