



DATA SUPPORT SYSTEM UPDATE – VIEWS

September 30, 2008

STATUS

KEY FUNCTIONS

- Developed by the five Regional Planning Organizations (RPOs)
- Provides easy online access to a wide variety of air quality data
- Offers user-friendly tools for exploring, visualizing, and analyzing data
- The primary source for IMPROVE Regional Haze Rule data
- Over 1100 registered users
- Over 300 organizations, institutions, and companies represented
- Developed for RPOs, States, Tribes, Federal Land Managers, and local agencies
- Used by researchers, analysts, planners, regulators, stakeholders, and students

System Users	WRAP Association	Nature of Use	Level of Use
Air Quality Planners and Analysts	IWG, TAF	Analysis for completing Haze SIPs	Periodic
States/Tribes/FLMs/EPA	IWG, TAF	Tracking Progress	Periodic

INTEROPERABILITY AND ARCHITECTURE

Based largely upon its popularity and success within the general air quality community, VIEWS was selected by the WRAP to serve as the foundational architecture and starting point for the development of the WRAP Technical Support System (TSS), a high-level planning and decision support system intended to aid the development of state and tribal Implementation Plans in the WRAP. VIEWS functions primarily as a “data support system” that provides fundamental database, software, and service infrastructure, while the TSS functions primarily as a “decision support system” that provides additional visualization and analysis tools to help planners better understand and interpret the underlying air quality data. As new and updated air quality datasets become available, they are first added to the VIEWS integrated database. Once in VIEWS, these datasets are immediately accessible by the TSS tools. While there is currently some overlap between the functionality of VIEWS and the TSS, these systems are being developed as distinct and synergistic air quality information systems that transparently interoperate.

WORK COMPLETED IN THE LAST 12 MONTHS

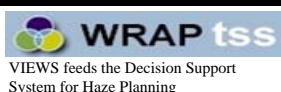
New Version of the VIEWS Website

Over the past several months the VIEWS team has been developing an updated version of the VIEWS website, to be launched in Fall 2008. The new website: 1) addresses various issues with the existing website, 2) introduces a new look-and-feel and an improved navigation scheme, and 3) adds several new features. In addition, improvements to the underlying integrated database and the foundational software infrastructure have been made to better facilitate future extension, scalability, development, and interoperability with other systems. The new website uses a Server-Oriented Architecture (SOA) approach to offer a variety of its resources via web services.



EPA Data Summit

On February 12-13, 2008, members of the VIEWS team participated in the EPA Data Summit held at Research Triangle Park, NC. The purpose of the summit was: 1) to learn about and explore efficient means of leveraging the numerous individual efforts underway; 2) to examine the mechanisms and potential opportunities for “interoperability” between existing systems, 3) to assist EPA/OAQPS in honing its role in the larger air quality data community; and 4) to begin to establish a community-wide strategy for responding to user defined needs. The VIEWS team presented an in-depth overview of the VIEWS/TSS system.



NEXT STEPS

INTEGRATE THE FETS

The FETS database will remain an independent repository; VIEWS will access FETS data and data products to assist analysts in relating monitored variables to fire activity and emissions, and provide data presentation tools.

ADD EPA OZONE DATA

EPA ozone data will be added to the VIEWS integrated database, and new visualization tools will be developed for exploring the data. Currently, the project is categorized into three major tasks:

- Import the raw hourly ozone data into the VIEWS integrated database;
- Determine the desired aggregations and subsets of the data to provide; and
- Design the end user output products and tools for exploring and analyzing the data.

ADD NASA SATELLITE DATA

The VIEWS development team will be adding existing NASA satellite data such as:

- Aerosol optical depth products;
- Imagery from the Terra/Aqua (MODIS, AIRS) and Aura (OMI) satellites;
- CALIPSO LIDAR; and
- Fire activity data from the NOAA GOES satellite.

These datasets will help provide a more complete picture of the aerosol concentrations and sources over the U.S. in conjunction with ground-based data currently available in VIEWS.

ADD TWO NEW TEAM MEMBERS

Two new positions are currently being added to the VIEWS development team. A programmer/developer and a scientific data analyst will be hired to help implement the features that are currently planned for VIEWS and its dependent systems.

LAUNCH NEW VERSION OF THE VIEWS WEBSITE

The new version of the VIEWS website described above will be launched before calendar year 2009.



Integrated Systems Solution: VIEWS provides an integrated, foundational architecture for air quality information management and support.

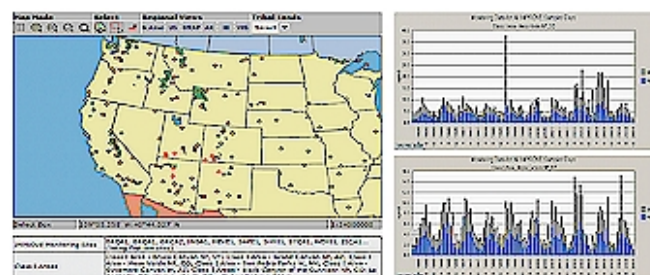


IMPROVE Sulfate, 2002



STN Sulfate, 2002

Air Quality Visualization Tools: Above is an example of the dynamic contour mapping that is available through the VIEWS Query Wizard.



Air Quality Analysis Tools: VIEWS offers a variety of integrated tools for the multidimensional analysis of air quality data. These tools allow the comparison of such things as: 1) multiple NAAQS indicators, 2) multiple time periods, and 3) multiple sites with consistent, comparable graphics.

Future Processes

Add NASA Satellite Data

Add EPA Ozone Data and Tools

Participate in Community Interoperability Efforts

