

# MARAMA

Mid-Atlantic  
Regional Air  
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## MANE-VU COMBINED AEROSOL AND TRAJECTORY TOOL (CATT)

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**PURPOSE:** CATT is a relational database and query system allowing connectivity to multiple measured aerosol and receptor model data sets and gridded trajectory data. This facilitates pairing wind trajectories with aerosol data to help identify the location of sources of air pollutants that impair visibility. The data analysis community anticipate that using this tool will provide important information about potential source regions affecting Class I areas and will help set priorities for emissions inventory improvement projects as well as control strategy developments. The results should also provide useful insights into sources contributing to regional background concentrations of PM<sub>2.5</sub>. Phase II enhancements included:

- **Development of flexible connectivity to chemical datasets, especially to VIEWS** by allowing ‘on-the-fly’ trajectory aggregation and use of VIEWS chemical data sets.
- **Development of flexible import of pre-calculated back-trajectory data** by developing procedures for easy import of pre-computed trajectory data into the CATT trajectory database.
- **Development and implementation of filtering and trajectory aggregation algorithms** by the use of a flexible framework for adding new aerosol filtering and trajectory aggregation algorithms.
- **Spatial Interpolation and Rendering Tool for VIEWS** by incorporating spatial interpolation and rendering facilities (gridder/contourer) into the CATT. This will e Gridder/Contourer tool will be applicable to the spatial datasets in VIEWS as well as data from other monitoring networks.
- **CATT Analysis Server Software, Maintenance, and users manual.**

This project was being conducted by Center for Air Pollution Impact and Trend Analysis (CAPITA) of Washington University in St. Louis under contract to MARAMA.

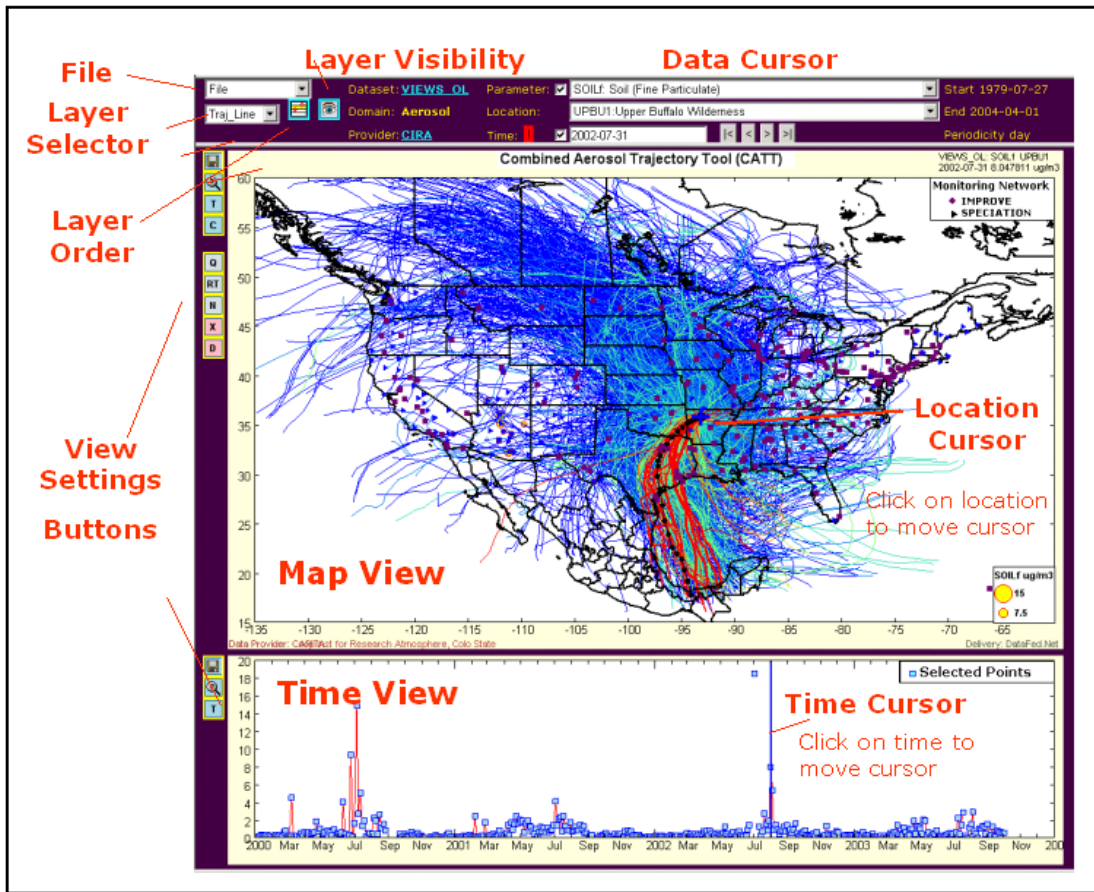
### WHERE TO FIND:

- CATT, and links to an Illustrated Instruction Manual and Resources/Discussion are located at: [http://datafed.net/projects/CATT/CATT\\_Links.htm](http://datafed.net/projects/CATT/CATT_Links.htm)

### CONTACT INFORMATION:

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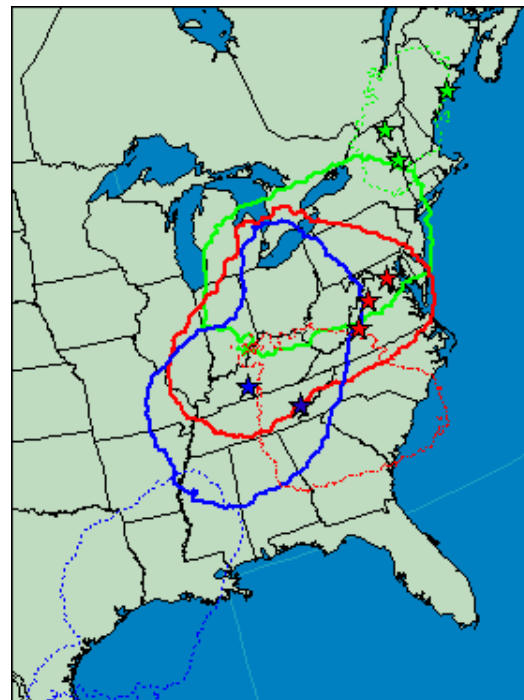
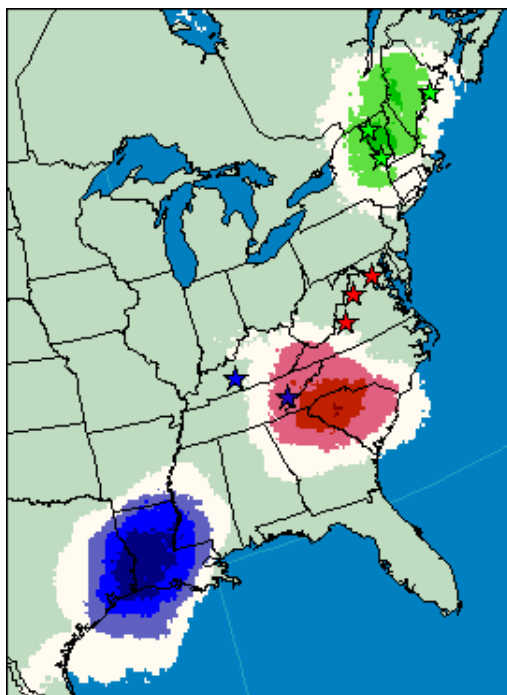
**Figure 1. An Example Screen Shot of the Tool**



**Figure 2. An Example of Type of Analysis Conducted With Data Generated by the Tool**

Wood Smoke has different regional origins in NE, MA, SW

Secondary Sulfur has similar regional origins in NE, MA, SW



**NE: ACAD, PMRC, LYBR; MA: WASH, SHEN, JARI; SE: GRSM, MACA**