

Table of Contents:

1. [Data Set Description](#)
2. [Sample Data Record/Data Format](#)
3. [References](#)
4. [Contact Information](#)
5. [Acknowledgement](#)

1. Data Set Description:

The University of Alabama-Huntsville Mobile Integrated Profiling System's (MIPS) Doppler profiler (915 MHz radar) was used to estimate the vertical distribution of horizontal wind speed and wind direction. Radial velocity along six beams was used to obtain the horizontal wind speed and wind direction. The consensus averaging time was 55 minutes, the number of beams is 6, and the number of range gates was 41. For beam 1, the number of records required to make consensus was 16, the total number of records was 26, and the consensus window size was 4 m/s. For beams 2 and 3, the number of records required to make consensus was 13, the total number of records was 26, and the consensus window size was 3 m/s. There were no data for beams 4 and 5. For beam 6, the number of records required to make consensus was 16, the total number of records was 26 and the consensus window size was 3 m/s. The azimuth and elevation for beams 1 to 6 were: 358 and 90; 88 and 66.4; 178 and 66.4; none; none; 88 and 90.

More information about the Mobile Integrated Profiling System (MIPS) can be found at the [MIPS web site](#).

The U.S. Environmental Protection Agency (EPA) selected Atlanta as one of the first Supersites Programs dedicated to the study of fine particles (or PM_{2.5}). The Southern Oxidants Study (SOS) in conjunction with the Georgia Institute of Technology, Earth and Atmospheric Sciences Department developed and implemented the scientific research plan for this initial Supersites Program effort.

The Atlanta field experiment was a 4-week long campaign aimed at comprehensively addressing issues related to the measurement and characterization of fine particles in the polluted or urban atmosphere. The experiment took place during the August 1999 and deployed a wide array of instrumentation at a measurement site located on Jefferson Street in Midtown Atlanta.

Goals of the Atlanta Supersite Program were twofold: first, to provide a platform for testing and contrasting some of the newer particle measurement techniques, and second, to provide data to advance our scientific understanding of atmospheric processes regarding atmospheric particles.

Specific objectives were: (1) to characterize the performance of emerging and/or state-of-the-science PM Measurements; (2) to compare and contrast similar and dissimilar PM Measurements; (3) to evaluate the precision, accuracy, and completeness of information that can be gained from the planned EPA PM mass and chemical composition networks; (4) to evaluate the scientific information gained by combining various independent and complementary PM Measurements; and (5) to address various scientific issues and their ozone- and PM-related policy implications with this data base.

More information about the Atlanta Supersite can be found in the accompanying documentation and referenced publications.

The data set should be cited as follows:

McNider, Dick and Justin Walters. 2003. NARSTO EPA_SS_ATLANTA 1999 UAH Mobile Integrated Profiling System Data. Available on-line via [NARSTO Data and Information](#) at the Atmospheric Science Data Center at NASA Langley Research Center, Hampton, Virginia, U.S.A.

2. Sample Data Record/Data Format:

There are 2 data files included in this data set. Data files are in the NARSTO Data Exchange Standard (DES) format that is described in detail on the [NARSTO Quality Systems Science Center \(QSSC\) web site](#). The files follow a tabular layout and are stored as ASCII comma-separated values files (.csv). The DES does not rely on row position to identify specific information, but uses a tag to describe the information contained in the row. The DES is a self-documenting format with three main sections: the header contains information about the contents of the file and the data originator; the middle section contains metadata tables that describe/define sites, flags, and other codified fields; and the final section is the main data table that contains key sampling and analysis information and the data values. Descriptions of the standardized metadata fields are also available on the QSSC web site.



3. References:

Solomon, P.A., W. Chameides, R.W. Weber, A. Middlebrook, C.S. Kiang, A.G. Russell, A. Butler, Turpin, B., D. Mikel, R. Scheffe, E. Cowling, E. Edgerton, J. St. John, J. Jansen, P. McMurry, S. Hering, and T. Bahadori. 2003. An Overview of the 1999 Atlanta Supersites Project. JGR ? Atmospheres, Special Issue for the Atlanta Supersites Project, 108, in press, doi:10.1029/2001JD001458.

4. Contact Information:

Investigator(s) Name and Title:

Name: Walters, Justin
E-mail: jwalters@nsstc.uah.edu

Name: McNider, Dick
E-mail: dick.mcnider@msfc.nasa.gov

Data Center:

The User and Data Services Office at the Langley Atmospheric Science Data Center is involved throughout the system to monitor the quality of data on ingest, to ensure prompt replies to user questions, to verify media orders prior to filling them, and to ensure that the needs of the users are being met.

If you have a problem finding what you need, trouble accessing the system, or need an answer to a question concerning the data or how to obtain data, please contact the User and Data Services staff.

Telephone: (757) 864-8656
FAX: (757) 864-8807
E-mail: support-asdc@earthdata.nasa.gov
URL: <http://eosweb.larc.nasa.gov>

5. Acknowledgement:

When data from the Langley Atmospheric Science Data Center are used in a publication, we request the following acknowledgment be included: "These data were obtained from the NASA Langley Research Center Atmospheric Science Data Center".

The Langley Data Center requests a reprint of any published papers or reports or a brief description of other uses (e.g., posters, oral presentations, etc.) of data that we have distributed. This will help us determine the use of data that we distribute, which is helpful in optimizing product development. It also helps us to keep our product-related references current.

Please contact us at support-asdc@earthdata.nasa.gov for instructions on mailing reprints.

Document Information:

Document Creation Date: July 3, 2003
Review Date:
Last Date Modified:
Document ID: TBD
Author: Langley Data Center User and Data Services Office
Langley DAAC Help Desk: Phone (757) 864-8656; E-mail support-asdc@earthdata.nasa.gov

