# NARSTO SOS99NASH Wind Profiler Data

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## 1. Data Set Description:

Wind components (u and v) from five 915-MHz radar wind profilers. The profilers and their locations are:

- Cornelia Fort Airpark (CFA) 36.19N, 86.70 W, 126 m MSL
- Dickson (DIK) 36.25N, 87.37W, 225 m MSL
- Eagleville (EGV) 35.73N, 86.60W, 228 m MSL
- Gallatin (GAL) 36.33N, 86.40W, 171 m MSL
- Cumberland (CMB) 36.38N, 87.65W, 136 m MSL

The number and location of range gates (vertical location of the wind measurements) is as follows:

- CFA: 1st gate 146 m AGL, 64 gates
- DIK, EGV, GAL: 1st gate 96 m AGL, 50 gates
- CMB: 1st gate 165 m AGL, 64 gates
- All sites use 58 m range gates.

Availability of data for each day varies among the profilers, especially at the beginning and end of the project. Check the actual files for each profiler to determine availability.

Mixing depth (convective boundary layer height or zi) is given for daytime hours at each site as derived from a manual inspection by W. Angevine of profiler reflectivity patterns. Data may be unavailable for a variety of reasons including rain, poorly defined boundary layer, or instrument outage. Data in late afternoon should be used with care even when available, since the afternoon transition is poorly understood.

More information about the Southern Oxidants Study (SOS) Nashville.

**The dataset should be cited as follows:**
Angevine, Wayne M., Allen B. White, and Kevin Knupp. 2002. NARSTO SOS99NASH Wind Profiler 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:

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:


- NASHVILLE 1999 FIELD STUDY SCIENCE PLAN
- 1999 SOS NASHVILLE FIELD CAMPAIGN QUALITY ASSURANCE PLAN
- SOS NASHVILLE 1999 MEASUREMENT PLAN

## 4. Contact Information:

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### 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.

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