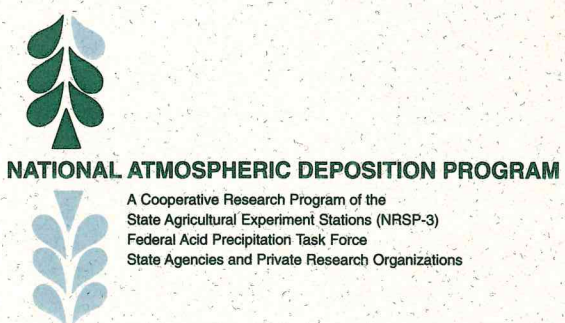


MAJOR CONTRIBUTIONS of the NADP/NTN

- The NADP/NTN is the only organization currently providing "a national network to collect and compile data with quantification of certainty. . . and to ensure the comparability of data collected in different states" as stipulated in the 1990 Amendments to the Clean Air Act.
- The NADP/NTN is a major source of information on atmospheric deposition for the National Water Quality Assessment Program (NAWQA), whose goal is to describe how natural and human factors are affecting the quality of the nation's surface and ground waters.
- The data record is now reaching a length of record where it can be used for more conclusive, higher-confidence regional and subregional analyses of precipitation chemistry.
- Major conclusions in the National Acid Deposition Assessment Program's (NAPAP) Integrated Assessment and State-of-Science/Technology reports (1990) depended heavily on NADP/NTN data for assessments of the aquatic, terrestrial, material, and human health effects of acid rain.
- The NADP/NTN network has been used to collect information on topics of immediate or emerging interest such as radioactive fallout from Chernobyl, toxic metals, and herbicides.



ASSESSING TRENDS IN PRECIPITATION CHEMISTRY ACROSS AMERICA

National Atmospheric Deposition Program / National Trends Network Monitoring Sites



COOPERATORS

• Alfred Univ. • American Elec. Power Co. • Amoco Production Co. • Baltimore Gas & Elec. • Bionetics Corp. • Boise Cascade Corp. • Bureau of Land Management • Carolina Power & Light City of Portland • County of Siskiyou (Calif.) • Dept. of Energy - Argonne Natl. Lab - Oak Ridge Nat'l Lab • Eastern Ky. Univ. • Environment Canada - Atmos. Env. Serv. • Environmental Protection Agency • Exxon Co. USA • Ft. Peck Assiniboine & Sioux Tribes • Green River (Ut.) High School • Icelandic St. Park • Intl. Paper Co. • Kans. St. Fish & Game • Kans. St. Park & Resource Auth. • La. Dept. Envl. Qual. • Los Alamos Natl. Lab • Me. Dept. of Envl. Prot. • Mass. Dept. of Envl. Prot. • Miami Univ. • Mich. Tech Univ. - GLARU • Minn. Pollution Cont. Agency • Morehead St. Univ. • N.J. Dept. of Envl. Protection • N.M. Env. Dept. Air Qual. Bur. • Nat'l Biological Survey • Nat'l Park Service - Acadia NP • Big Bend NP • Bryce Canyon NP • Buffalo NR • Capulin Volcano NM • Cascades NP • Craters of the Moon NM • Denali NP • Everglades NP • Glacier NP • Grand Canyon NP • Great Basin NP • Great Smoky Mtns. NP • Guadalupe Mtns. NP • Indiana Dunes NL • Isle Royale NP • Little Big Horn Battlefield • Mesa Verde NP • No. Atlantic Coastal Lab • Olympic NP • Organ Pipe Cactus NM • Rocky Mtn. NP • Sequoia NP • Shenandoah NP • Theodore Roosevelt NP • Yellowstone NP • Yosemite NP • Nat'l Aeronautic & Space Admin. • Panhandle Research Station • SE Res. Stn. • SF Phosphates Ltd. Co. • State Agricultural Experiment Stations - Colo. St. Univ. LTER • Cornell Univ. • Ia. St. Univ. • Kans. St. Univ. • La. St. Univ. Iberia Res. Stn. • Mont. St. Univ. No. Ag Res. Ctr. • Mich.

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NATIONAL ATMOSPHERIC DEPOSITION PROGRAM / NATIONAL TRENDS NETWORK

Measure precipitation chemistry?

Chemistry of precipitation is a key indicator of the quality of our atmosphere.

Our chemical climate must be carefully monitored so we will know how it is changing and understand clearly the signals received from this indicator of environmental

Why is the NADP/NTN?

National Atmospheric Deposition Program / National Trends Network (NADP/NTN) is a collaborative effort dedicated to the collection and analysis of precipitation.

NADP/NTN is a cooperative effort involving the state agricultural experiment stations, federal and state universities, public and private universities, and industry that began in 1978. The National Research Support (NRS) National Research Support (NRS-3) and USGS Acid Rain Program provide the nucleus around which NADP/NTN is formed.

What is the objective of the NADP/NTN?

To provide the scientific community, resource managers, and policy makers with information of the highest possible quality on the exposure of both natural and managed ecosystems to biologically important chemical deposition and other stresses resulting from changes in the chemical climate.

Emphasis is placed on broad, national coverage and the development of long-term, continuous data records on spatial and temporal trends and patterns in the chemical climate of America.

What does the NADP/NTN do?

The NADP/NTN coordinates the operation of nearly 200 precipitation chemistry collection sites across the United States.

Every Tuesday NADP/NTN site operators collect a sample of the rain and snow that fell during the previous week. They measure the volume, acidity, and conductivity of the sample, and then ship the sample to a central analytical laboratory for further analysis.

The use of uniform sampling procedures and equipment enables NADP/NTN to track changes in precipitation chemistry over time and across the United States.

What about data quality and availability?

Monitoring and analytical laboratory data are rigorously reviewed and made available to all.

Following quality assurance review, the data are stored in a central data base at the NADP/NTN Coordination Office. These quality-assured data are available to anyone that requests them. The NADP/NTN summarizes the data and produces maps and reports of precipitation chemistry.

Why is the NADP/NTN important?

- **NADP/NTN is the only network that measures precipitation chemistry on a national scale.**
- **NADP/NTN has over 15 years of high-quality precipitation chemistry data that is important for understanding and benchmarking human influences on our environment.**
- **NADP/NTN data are used to support a broad spectrum of activities ranging from traditional agricultural research on plant nutrition to air pollution control cost/benefit analyses.**
- **NADP/NTN offers a platform from which other substances in precipitation can be measured in a timely and cost-effective manner.**

What is the future importance of the NADP/NTN?

There are growing concerns about many related environmental issues including (1) atmospheric contributions to nutrient enrichments of bays, estuaries, and coastal waters, (2) the possibility of "nitrogen saturation" in certain terrestrial ecosystems receiving elevated levels of nitrogen deposition from the atmosphere, and (3) atmospheric contributions to deposition of toxic metals such as mercury.

NADP/NTN's future role is to assure that the Nation has the unprecedented, uninterrupted record of precipitation chemistry that will be necessary to assess current trends, and to make high-confidence determinations of needed changes in emissions coming from fossil fuel-based energy and manufacturing enterprises.

For more information please contact:

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