The National Atmospheric Deposition Program (NRSP-3)
Technical Committee Meeting & Ammonia Workshop
October 20-24, 2003, Washington, D.C.
General Business Meeting Minutes

Tuesday, October 21, 2003

Program Chair Richard Grant called the Technical Committee to order, welcomed the participants, and invited them to introduce themselves. Meeting and workshop participants are listed at the end of this report.

In recognition that this meeting marked the 25th anniversary of NADP operations, Chairman Grant described how the program got started as a State Agricultural Experiment Station (SAES) project in the North Central SAES Region. This project was first designated North Central 141 (NC-141), although from the outset there were also participants from the Northeastern, Southern, and Western Regions. In addition to SAES participants, there were participants from universities and federal agencies, such as the U.S. Department of Agriculture - Forest Service, U.S. Environmental Protection Agency, and U.S. Geological Survey. Grant briefly mapped the evolution of this regional project into a national project, which today is National Research Support Project - 3 (NRSP-3). He also charted the growth of the NADP, highlighting significant events along the way, such as the National Acid Precipitation Assessment Program, and the additions of the Atmospheric Integrated Research Monitoring Network and Mercury Deposition Network. From a regional project with 20 sites in 1978 to a national program with more than 300 sites in three networks today, NADP is a premier national monitoring program. The cooperative nature of NADP, involving individuals from many agencies (federal, state, and local), universities, and private companies has helped sustain this effort.

Chairman Grant next presented the site operator service awards, recognizing operators who had served for 5, 10, 15, 20, and 25 years. Awards were given to the following:

2003 Site Operator Awards

5 Year Awards (paper certificate)

ID03	Michael Munts
ID11	Brenda Richards
IN34	Cheryl Guster Burdett
MD15	Francis “Hoss” Parks (1995-2000 AIRMoN)
ME96	Don Prince
MN01	Dale Krueger
NM08	Linda Madron
NY08	Daniel Tiffany
OH17	Arthur Peterson
VT99	Miriam Pendleton (1997-2002 AIRMoN)
WY97	Liz Oswald

10 Year Awards (5x7 plaque)

AR02	Steve Tackett
AZ06	Ami Pate
CO15	Ole Olsen
LA30	Diana Corkern
MA13	Leslie Collyer
OR98	Verena Fabian
PA15	Robert Ziegler (AIRMoN and NTN)
PA42	Kevin Horner

15 Year Award (8x10 plaque)

MT07	Kent Dodge
TX16	Robert Moen

20 Year Award (lucite trophy)

IL18	David Lindgren
IN20	Gary Zeissig
MD13	Michael Newell

25 Year Award (glass etching)

GA41	John Melin
MI53	William Dunn
MN16	Arthur Elling
NY20	Ray Masters

Reports —

Executive Committee

Rich Grant, NADP Chair, Purdue University

Rich invited Chris Lehmann, NADP QA Manager and Chair of the Quality Assurance Advisory Group, to give a brief presentation on the draft NADP Quality Management Plan (QMP). This plan was prepared by Lehmann and Bowersox (NADP Coordinator) and reviewed by the QA Advisory Group and Executive Committee. Chris gave a PowerPoint presentation, which is available on request (contact Kathy Douglas, kathy@sws.uiuc.edu). Below are highlights of this report.

- The purpose of the NADP QMP is to describe quality management policies, procedures, and activities for (1) program management, (2) decision-making (NADP Committee and Subcommittee roles and responsibilities), (3) field site operations, and (4) analytical laboratory operations.
- The Executive Committee made two amendments in the QMP at its meeting on Monday, 20 October, and then recommended the plan be approved by the Technical Committee. The amendments were: (1) streamline the QMP approval process by reducing the number of people approving the plan to just the Technical & Executive Committee Chair, and (2) clarify the subcommittee officer rotation.

Motion: A motion was brought forward from the Executive Committee for approval of the QMP.
Motion carried.

Regional SAES Administrative Advisors

Wayne Banwart, Lead Administrative Advisor, North Central Region

- Reported that the four SAES regions (North Central, Northeast, South, West) had approved the renewal of NRSP-3 for five years, through September 2007.
- Introduced Ray Knighton as the recently named Cooperative State Research, Education, and Extension Service (CSREES) representative to the NADP Technical and Executive Committees. Knighton is the National Program Leader for air, soil, and water in the Natural Resources and Environment Unit of CSREES. He replaced Dan Jones on the NADP Executive Committee; Dan had served in this capacity since 1998.

- Ray Knighton mentioned a recently announced $5M supplemental RFP for a new air quality program, which will focus on pollutant emissions and transport issues connected with agricultural operations.

Program Office

Van Bowersox, NADP Coordinator

Van gave a PowerPoint presentation, which is available on request (contact Kathy Douglas, kathy@sws.uiuc.edu). Below are highlights of his report.

- Reported briefly on the steps in the NRSP-3 renewal process, which was based on guidelines established by the Experiment Station Committee on Organization and Policy. All four SAES Regional Directors' Associations approved the renewal, as did CSREES. Duration of NRSP-3 is October 2002 - September 2007.
- Reported on the status of the National Trends Network (NTN) and Atmospheric Integrated Research Monitoring Network (AIRMoN). Since the September 2002 Technical Committee meeting in Seattle, 11 sites joined the NTN and 3 sites terminated operations, bringing the number of active sites to 253. Side-by-side intercomparisons are being done at 2 sites and 33 NTN and Mercury Deposition Network sites are co-located. One site converted from AIRMoN to NTN operations in 2003, reducing the number of active AIRMoN sites to 9.
- Presented a graph that displayed the number of hits and user sessions by calendar quarter from Jul 1999 through June 2003. NADP Internet site usage rose by ~100 percent over this three-year period and the annual number of hits now exceeds 1.5 million.
- Presented the list of scientific journals that published articles by NADP authors or articles using or citing NADP data. As of this meeting, the total number of 2002 journal articles was 86.
- Reported on uses of NTN color isopleth maps in news articles.
- Showed pictures of educational and extension activities by Program Office and CAL staff at the Illinois State Water Survey. Education and extension activities are now part of the NADP mission. About 40% of NADP Internet usage is for educational purposes.
- Discussed the new features that have been added to the annual summary, including a highlights section, new maps and figures, and a section that summarizes the site classification work performed under guidance from the Data Management and Analysis Subcommittee.

NTN Advisor, Mark Nilles, U.S. Geological Survey

- Provided a general overview of the status of the NTN, emphasizing network growth and stability.
- Challenged the Technical Committee to consider the importance of modernizing the NTN infrastructure. Field equipment is based on old technology and while it has served us well, the frequency of parts replacement, instrument downtime, and the cost of repairs are on the rise. Some sites are relying on AC power sources that were installed "temporarily" more than 20 years ago. Instruments are installed on wooden platforms that are deteriorating and in need of repair. Operator safety is of

paramount importance and with level budgets resources are very limited to continue paying the rising costs of maintaining this infrastructure. NADP sponsors need to plan for an overhaul that would replace the current instruments with modern off-the-shelf instruments and pay for an upgrade in power supplies, etc.

- Urged agency representatives to stay connected with the on-site personnel who collect samples and maintain the sites and to read and follow up on the reports from the site systems and performance reviews.

Mercury Deposition Network (MDN), Clyde Sweet, NADP Program Office

- Showed the site map and described the areas of network growth, emphasizing the addition of 6 National Park Service and 5 U.S. Geological Survey sites now funded through the federal cooperative agreement. MDN added 15 new sites in 2003, and there are now 78 active sites. Two Canadian sites terminated operations and several other Canadian sites are at risk.
- Reported that (1) the MDN Analytical Laboratory (HAL) is on schedule with data delivery to the Program Office; (2) in June 2003 a NADP review team led by Mark Peden conducted a triennial review of HAL operations and procedures as specified in the NADP QMP; (3) an external quality assurance program, which is modeled after the very successful NTN program and that involves laboratory inter-comparisons and system and handling blank evaluations, will be initiated this fall under sponsorship of the U.S. Geological Survey; and (3) the first annual MDN field site operators training course has been scheduled for May 2004 at the HAL.
- Reported on two workshops that he attended in 2003, an EPA-sponsored workshop on persistent pollutants (such as mercury) in the environment and a workshop sponsored by the Taiwanese on exploring new directions for monitoring atmospheric deposition.
- Described two special studies: (1) the Commission for Environmental Cooperation has established two mercury deposition sites in Mexico; samples from these two sites are collected following MDN protocols and are sent to the HAL for analysis; and (2) a new collector designed and manufactured by N-Con Systems Company is being tested as a potential replacement for the current MDN collector.
- Reported on a new hire, David Gay, who will be helping with MDN data review and other MDN matters, as well as working on a project to measure ammonia at several Midwestern locations.
- Responded to a question about a network design document for the MDN. A white paper that sets out the principles of MDN network design was prepared under the auspices of the Commission for Environmental Cooperation. Finding the resources to support this design (a 150-station network) has proven difficult.
- Responded to a question from the floor about the procedures for joining NADP. The suggestion was made to have an on-line section that describes how to join any of the three NADP networks.
- Responded to a question about the status of the Savannah River Lab MDN site. This site discontinued operations in 2003 but has expressed an interest in resuming MDN operations.
- Responded to a question about the measurement of metals other than mercury by

mentioning the white paper that had been written to promote trace metals measurements and describing the measurement programs at sites in Pennsylvania, Indiana, and Louisiana.

Subcommittee Reports

Network Operations Subcommittee (NOS)

Mark Nilles, NOS chair, U.S. Geological Survey

- Reported that Mike Kolian of the U.S. Environmental Protection Agency was elected as the 2003/2004 NOS Secretary and that the current officers would rotate, making Natalie Latysh (U.S. Geological Survey) the Subcommittee Chair and Karen Harlin (NADP CAL) the Vice Chair.
- Reported that the HAL response to the laboratory review team report be returned to the review team for its consideration and recommendation on approval.
- Summarized the NOS action items, which are being carried forward as a single motion for Technical Committee approval. The recommendations are: (1) that the NTN-CAL change its procedure for processing type 'WA' samples, which have original volumes of ~10mL to 35mL, from diluting these samples by 50 mL of de-ionized water to diluting these samples to 50 mL with de-ionized water; and (2) that the CAL begin using the inductively coupled plasma (ICP) to report NTN and AIRMoN cation (Ca^{2+}, Mg^{2+}, Na^{+}, K^{+}) measurements in January 2004; and (3) that the CAL continue its co-analysis (ICP and Atomic Absorption Spectrometry) study of a representative subset of samples until January and report on biases between the two analytical methods at the March 2004 NOS meeting.

Motion: Motion was brought forward from the NOS to approve the action items.
Motion carried.

Data Management and Analysis Subcommittee (DMAS)

Bob Larson, DMAS chair, NADP Program Office, presented an informational report with no items requiring Technical Committee action.

- Reported that the DMAS discussed the annual concentration and deposition maps that appear on the Internet site and in annual summary reports. For MDN, there was a consensus that the Program Office should explore objective ways to evaluate areas where the site density is adequate to present color contour maps, similar to NTN maps. For NTN, there was discussion about how to handle anomalous values such as the extraordinarily high concentrations at the Death Valley National Park site in 2002. There was a consensus that the Program Office should explore methods of spatial interpolation that would map these values yet minimize their spatial influence.
- Reported that the DMAS discussed the use of data from the relatively dense network of precipitation measurements from the National Weather Service cooperative weather observers. This network has nearly 12,000 measurements from across the United States, offering much higher spatial resolution than the 250-

site NTN. There was a consensus that the Program Office should explore the use of these data to compute deposition estimates, particularly on the watershed scale.

- Reported that the DMAS recommended the following Internet site updates: (1) add a table that lists method detection limits by analyte and date, and (2) add a description of the criteria for use of alternative precipitation gage measurements when the primary gage failed or its record was compromised.
- Reported that Chris Rogers of MACTEC, Inc., was elected as the 2003/2004 DMAS Chair and Bob Larson (NADP Program Office) as the DMAS V. Chair/Secretary.

Environmental Effects Subcommittee (EES)

John Sherwell, EES chair, Maryland Department of Natural Resources, presented an informational report with no items requiring Technical Committee action.

- Reported Pam Padgett, U.S. Department of Agriculture - Forest Service, as the 2003/2004 EES chair.
- Summarized EES discussions on the status of nitrogen deposition measurements, which include nitrate and ammonium in wet deposition at NTN sites and gaseous and particulate nitrate and particulate ammonium in Clean Air Status and Trends Network sites, but do not include organic nitrogen (wet or dry) or airborne gaseous ammonia measurements. The Subcommittee encourages continuation of the work on total nitrogen measurements at the CAL and at Mark Castro's laboratory. It also would like the NADP to explore the feasibility of passive ammonia measurements at NTN sites, as a cost-effective alternative for estimating the spatial distribution of the dry deposition of ammonia.
- Summarized EES discussions on gas and particulate mercury measurements for inferring the dry deposition of mercury and the need for these measurements. It would be good to get some idea of the spatial distribution and gradients of airborne mercury concentrations.
- Encouraged the CAL to investigate the ICP for total phosphorus measurements.
- Reported that the EES continued to discuss the form and content of a mercury brochure.
- Encouraged the Program Office to implement an on-line forum where Internet users could provide feedback on current NADP measurements and unmet measurement needs. This information could guide the development of new data products and inform the process for setting priorities about what new measurements are most needed.
- Reported that the EES sees a need for more outreach materials, which will be a topic for future EES meetings.

New Business —

Nominating Committee

Rich Grant, 2002/2003 NADP Chair, reported that the nominating committee (Rick Artz, AIRMoN Advisor to the Executive Committee, and Gary Lear, NADP Vice Chair) had recommended Kristi Morris, U.S. Fish & Wildlife Service, as 2003/2004 NADP

Secretary. Kristi agreed to serve in this position. Rich explained the officer rotations, which would make Kristi the NADP Chair in 2005/2006. He asked for nominations from the floor.
Motion: Mark Nilles moved that the nominations be closed. Lee Maul seconded.
Motion carried: Kristi was elected unopposed and unanimously.

2004 Technical Committee Meeting

Cari Furiness, technical program chair for the 2004 Technical Committee meeting, reported that the Canadian members of the committee had suggested Halifax, Nova Scotia, for the next annual meeting. Other Canadian cities, e.g., Montreal, were discussed, although Halifax was the consensus choice. Cari reminded the Technical Committee of the Third International Nitrogen Conference, scheduled for Nanjing, China, 12-16 October 2004. In an effort to preclude any conflicts with this very important meeting, the 2004 NADP meeting will be scheduled in September, most likely the week of 20 September. Cari reported that the NADP has been invited to be involved in the Nanjing meeting.

NADP Chair, Rich Grant entertained a motion to suspend (close) the annual business meeting and reconvene in the technical meeting session at 10:00 a.m.

National Atmospheric Deposition Program
2003 Technical Committee Meeting & Ammonia Workshop
Participant List

Participant	Affiliation
Jenn Aiosa	University of Maryland Regional Water Quality Program
Rida Al-Horr	Dionex Corporation
Gerald F. Arkin	University of Georgia, Georgia Experiment Station
Richard S. Artz	National Oceanic & Atmospheric Administration, Air Resources Lab
Willem Asman	Danish Institute of Agricultural Sciences
John Bachmann	U.S. Environmental Protection Agency, Ofc. of Air Quality Planning & Stds
Ann Baines	Environmental Resources Management
Holly A. Bamford	National Oceanic and Atmospheric Administration
Wayne L. Banwart	University of Illinois, Agricultural, Consumer, & Environmental Sciences
Jack Beach	N-Con Systems Co. Inc.
Martha Beach	N-Con Systems Co. Inc
Mark Beaubien	Yankee Environmental Systems, Inc.
Dwayne Beavers	Cherokee Nation, Office of Environmental Services
Rona Birnbaum	U.S. Environmental Protection Agency, Clean Air Markets Division
Shabtai Bittman	Pacific Agri-Food Research Centre
Terry L. Black	Pennsylvania Department of Environmental Protection
Van C. Bowersox	Illinois State Water Survey, NADP Program Office
Robert Brenner	U.S. Environmental Protection Agency, Office of Air and Radiation
Bob Brunette	Frontier Geosciences, Inc., MDN Analytical Laboratory (HAL)
Thomas J. Butler	Cornell University, Center for the Environment
Rick Carlton	Electric Power Research Institute
Cara Casten	Wyoming Department of Environment Quality, Air Quality Division
Mark Castro	University of Maryland, Appalachian Laboratory

Ann Chalmers	U.S. Geological Survey
Richard G. Cline	U.S. Department of Agriculture - Forest Service
Mark Cohen	National Oceanic & Atmospheric Administration, Air Resources Lab
Ken Cowen	Battelle
Ellis Cowling	North Carolina State University, Southern Oxidant Study
Christine Davis	U.S. Environmental Protection Agency
Brigita Demir	Illinois State Water Survey, Central Analytical Laboratory
Robin Dennis	U.S. Environ. Protection Agency/National Oceanic & Atmospheric Admin.
Russell Dickerson	University of Maryland, Department of Meteorology
Tracy Dombek	Illinois State Water Survey, Central Analytical Laboratory
Scotty R. Dossett	Illinois State Water Survey, NADP Program Office
Kathy Douglas	Illinois State Water Survey, NADP Program Office
Charles Driscoll	Syracuse University, Dept. of Civil & Environmental Engineering
Amanda Elliott	Institute of Ecosystem Studies
Jim Elliott	Hunton & Williams
Jan Willem Erisman	Energy Research Centre of the Netherlands
Scott Faller	U.S. Environmental Protection Agency, Clean Air Markets Division
Joel Frisch	U.S. Geological Survey
Cari Sasser Furiness	North Carolina State University, Department of Forestry
James Galloway	University of Virginia, Department of Environmental Sciences
David Gay	Illinois State Water Survey, Atmospheric Environment Section
David J. Goldston	House Committee on Science, Chief of Staff
Rich Grant	Purdue University, Department of Agronomy
Sandy Grenville	Air Quality Services, Inc.
Richard Haeuber	U.S. Environmental Protection Agency
Karen Harlin	Illinois State Water Survey, Central Analytical Laboratory Director
Lowry Harper	U.S. Department of Agriculture-Agricultural Research Service
Jerry Hatfield	U.S. Department of Agriculture, National Soil Tilth Lab
Ron Heavner	U.S. Department of Agriculture-Natural Resources Conservation Service
Eric Hebert	Environmental, Engineering, & Measurement Services
Bruce Hicks	National Oceanic & Atmospheric Administration, Air Resources Lab
Elizabeth Holland	National Center for Atmospheric Research
Kemp Howell	MACTEC, Inc
Selma Isil	MACTEC, Inc
Jennifer Jennings	Delaware Department of Natural Resources & Environmental Control
Andrew Johnson	Maine Department of Environmental Protection
Tom Jones	Advanced Technology Systems, Inc
Jeffrey S. Kahl	University of Maine, Mitchell Ctr. for Environmental & Watershed Research
Serpil Kayin	Mid-Atlantic Regional Air Management Association
Victoria R. Kelly	Institute of Ecosystems Studies
Margaret Kerchner	NOAA - Air Resources Laboratory, Chesapeake Bay Program Office
Amy Kinner	U.S. Environmental Protection Agency, Office of Air and Radiation
Raymond E. Knighton	U.S. Dept. of Agriculture, CSREES-Natural Resources and Environment
Michael Koerber	Lake Michigan Air Directors Consortium
Michael Kolian	U.S. Environmental Protection Agency, Clean Air Markets Division
Jacek Koziel	Texas A&M University, Texas Agricultural Experiment Station
David Krabbenhoft	U.S. Geological Survey
David Krask	Maryland Department of the Environment
Sagar V. Krupa	University of Minnesota, Department of Plant Pathology
Naresh Kumar	Electric Power Research Institute
Gail Lacy	U.S. Environmental Protection Agency
Dennis Lamb	Penn State University, Department of Meteorology
Kathy Fallon Lambert	Hubbard Brook Research Foundation, consultant
Robert Larson	Illinois State Water Survey, NADP Program Office

Natalie Latysh	U.S. Geological Survey
Gary Lear	U.S. Environmental Protection Agency, Clean Air Markets Division
Christopher Lehmann	Illinois State Water Survey, NADP Program Office
Kirsi Longley	Frontier Geosciences, Inc., MDN Analytical Laboratory (HAL)
Winston T. Luke	National Oceanic & Atmospheric Administration, Air Resources Lab
Maris Lusis	Meteorological Service of Canada
James A. Lynch	Penn State University, School of Forestry
Dave MacTavish	Environment Canada, Canadian Air & Precipitation Monitoring Network
Tonnie Maniero	National Park Service
Jacqueline Mann	University of Maryland, Department of Geology
Lee Maull	Dynamac Corporation
Douglas G. McKinney	U.S. Environmental Protection Agency
Nicholas McMillan	Frontier Geosciences, Inc., MDN Analytical Laboratory (HAL)
Bernard Melewski	The Adirondack Council
Mark Mesarch	University of Nebraska - Lincoln, School of Natural Resources
Tilden Meyers	National Oceanic & Atmospheric Administration, Air Resources Lab
Paul J. Miller	Commission for Environmental Cooperation
Timothy L. Miller	U.S. Geological Survey
John Mimikakis	House Committee on Science, Deputy Chief of Staff
Tom Misselbrook	Institute of Grassland and Environmental Research, UK
Dave Mitchell	San Joaquin Valley Air Pollution Control District
Kristi Morris	U.S. Fish and Wildlife Service
Julio Mosquera Losada	IMAG Wageningen University and Research Centre, Netherlands
LaToya Myles	National Oceanic & Atmospheric Administration, Air Resources Lab
Mark Nilles	U.S. Geological Survey
Pamela Padgett	U.S. Department of Agricultural - Forest Service, Riverside Forest Lab
Hans Paerl	University of North Carolina, Institute of Marine Sciences
Elizabeth Pattey	Agriculture & Agri-Food Canada
Ralph Perron	U.S. Department of Agricultural - Forest Service, Northeast Research Sta.
Richard Poirot	Vermont Department of Environmental Conservation
Ellen Porter	National Park Service
Mark Powell	U.S. Department of Agriculture - Agricultural Research Service
Eric M. Prestbo	Frontier Geosciences, Inc., MDN Analytical Laboratory (HAL)
Karen Prestegaard	University of Maryland, Department of Geology
John D. Ray	National Park Service - Air Resources Division
Christina Richmond	West Virginia Department of Agriculture
Martin Risch	U.S. Geological Survey
Chul-Un Ro	Meteorological Service of Canada
Wayne Robarge	North Carolina State University, Department of Soil Science
Bruce Rodger	Wisconsin Department of Natural Resources
Christopher M. Rogers	MACTEC, Inc.
Tamara Saltman	U.S. Environmental Protection Agency, Clean Air Markets Division
Gary Saunders	North Carolina Department of Environment & Natural Resources
Karen Savidge	University of Delaware, College of Marine Studies
Rich Scheffe	U.S. Environmental Protection Agency, Ofc. of Air Quality Planning & Stds
Dundee Schettino	Dionex Corporation
David Schmeltz	U.S. Environmental Protection Agency, Clean Air Markets Division
Bill Schrock	U.S. Environmental Protection Agency
Donna Schwede	U.S. Environ. Protection Agency/National Oceanic & Atmospheric Admin.
Joseph R. Scudlark	University of Delaware, College of Marine Studies
Christine Shaver	National Park Service
John Sherwell	Maryland Department of Natural Resources
John P. Shimshock	Advanced Technology Systems, Inc
Michael Shore	Environmental Defense

Joanne Shorter	Aerodyne Research, Inc.
Joseph E. Sickles II	U.S. Environmental Protection Agency
Ron Siefert	UMCES-Chesapeake Biological Laboratory
Sam Simkin	Institute of Ecosystem Studies
Paul E. Stacey	Connecticut Department of Environmental Protection, Water Bureau
Lee M. Stapleton	University of Nottingham, UK
Gary J. Stensland	Illinois State Water Survey, Atmospheric Environment Section
Gabrielle Stevens	U.S. Environmental Protection Agency
Kaye Surratt	Illinois State Water Survey, Central Analytical Laboratory
Mark A. Sutton	Centre for Ecology and Hydrology, Scotland, UK
Clyde W. Sweet	Illinois State Water Survey, Atmospheric Environment Section
Leland Tarnay	National Park Service
Wayne S. Teel	James Madison University, Integrated Science & Technology
Carrie Tengman	National Pork Board
Julie Thomas	National Park Service
Michael Uhart	National Acid Precipitation Assessment Program
William Ullman	University of Delaware, College of Marine Studies
Gerard Van Der Jagt	Frontier Geosciences, Inc., MDN Analytical Laboratory (HAL)
Addo van Pul	RIVM/Netherlands Environmental Assessment Agency
Callie Waid	Atmospheric Research & Analysis, Inc
Randy Waite	U.S. Environmental Protection Agency
John Walker	U.S. Environmental Protection Agency
Kathleen C. Weathers	Institute of Ecosystem Studies
Jim Webb	ADAS Wolverhampton, UK
Michael Webber	Pranalytica, Inc.
Stuart Weiss	Creekside Center for Earth Observations
Greg Wetherbee	U.S. Geological Survey
David Whitall	National Oceanic & Atmospheric Administration/National Ocean Service
Yihua Wu	National Aeronautics & Space Administration, Goddard Space Flight Center
Mark Zahniser	Aerodyne Research, Inc., Ctr. for Atmospheric and Environmental Chemistry