

The National Atmospheric Deposition Program (NRSP-3)

Technical Committee Meeting

October 17 - 20, 2000, Saratoga Springs, New York

Minutes

Tuesday, October 17, 2000

Business Meeting

Welcome and Introductions ---

The 2000 NADP Technical Committee Meeting was called to order by the Program Chair, Jim Lynch. Jim welcomed everyone to the meeting and gave a brief overview of the schedule. Jim invited everyone to introduce themselves. A participant list appears at the end of these minutes.

Executive Committee Report —

James Lynch, Technical Committee Chair, Penn State University

- Acknowledged Dave Bigelow's leadership and contributions to the organization and operation of NADP and referred everyone to the *In Memoriam* in the program proceedings booklet for the meeting.
- Reported that NRSP-3 is entering its fourth year of the current 5-year cycle and that new guidelines for multistate research activities require a program review in the next to last year; for NRSP-3, the review must be completed in 2001.
- Updated the plans for NADP equipment modernization.
- Discussed NADP growth and future research avenues, such as daily sampling for mercury, trace metal analysis, organic pollutants, and urban sampling.
- Expressed a desire to heighten the status of the annual NADP meeting to be the place where the latest atmospheric chemistry and deposition research results are presented. To move in that direction, the meeting format was changed to attract the scientific community by completely separating the business meeting activities from the scientific symposium. Feedback on this change is appreciated.

Awards ---

NADP Chair, Jim Lynch, presented site operator service awards for 5, 10, 15 and 20 years:

5 Year Awards (certificate)

<u>Site</u>	<u>Name</u>	<u>Start Date</u>	<u>Sponsoring Agency</u>
AZ99-Oliver Knoll	Philip Madsen	08/25/81	USGS
CO21-Manitou	Steve Tapia	10/17/78	USDA-Forest Service
NV03-Smith Valley	Laurie Bonner	08/07/85	USGS
SD99-Huron Well Field	Frank Amundson	11/29/83	USGS
TX04-Big Bend NP(K-Bar)	John Forsythe	04/10/80	NPS-Air Resources Division

10 Year Awards (plaque)

CA88-Davis	Mike Mata	09/04/78	USGS
MT05-Glacier NP(Fire Weather)	Lindy Key	06/03/80	NPS-Air Resources Division
NC03-Lewiston	Margaret Pierce	10/31/78	NC State University
NM01-Gila Cliff Dwellings NM	Daniel Galindo	07/29/85	EPA/NM Environment Department
SD08-Cottonwood	Ron Haigh	10/11/83	NOAA-Air Resources Lab

15 Year Awards (plaque)

AL99-Sand Mtn Ag Exp Station	James Hugh Burns	10/02/84	TVA
IA23-McNay Memorial Res Ctr	Jim Secor	09/11/84	USGS
ID15-Smiths Ferry	Mary Owen	10/09/84	USGS
MD03-White Rock Substation	Robert Dalton	10/03/84	Constellation Energy Group
WI25-Suring	James Trochta	01/23/85	WI Dept of Natural Resources

20 Year Awards (trophy)

FL03-Bradford Forest	Larry Korhnak	10/10/78	St John's River Water Mgt District
IN34-Indiana Dunes NL	Lou Brenan	07/15/80	NPS-Air Resources Division
ME02-Bridgton	Peter Lowell	09/30/80	ME Dept Environmental Protection
ME09-Greenville Station	Llew Wortman	11/20/79	SAES-University of Maine
OR10-HJ Andrews Exp Forest	John Moreau	05/13/80	USDA-Forest Service

Reports —

Administrative Advisors -

Wayne Banwart - Lead Administrative Advisor, Northcentral Region

- Expressed the need to look at the review and renewal process and get clarification on due dates and requirements over the next year.
- Urged everyone to continue to get the word out about NADP and improve the program's visibility, as opportunities arise.

CSREES -

Dan Jones - CSREES NRSP-3 Program Leader

- Indicated that agency procedures for program reviews have not yet been set.
- Stated that he will work with the Program Office to conduct the review in the next year.
- Reported that CSREES Administrator Dr. Charles Laughlin had resigned and that Dr. Colien Hefferan had been named as the new Administrator.
- Suggested that NADP make a presentation at a CSREES Executive Council meeting, which includes the Administrator and eight Deputy Administrators. This would provide a venue for informing the new Administrator and her Deputies of the scope, activities, and accomplishments of the NADP.

NTN Advisor -

Mark Nilles - USGS

- Complimented the CAL for getting the data delivery back on schedule in 2000.
- Commended NADP's on-line database for its ease of use and completeness.
- Expressed his ongoing support for the equipment modernization initiative and encouraged Technical Committee data users and researchers.

AIRMoN Advisor -

Rick Artz - NOAA Air Resources Laboratory

- Expressed a desire to have on-line trajectories for AIRMoN data on the web in the next month.
- Mentioned the continuing struggle to secure funding for AIRMoN operations.
- Pleased with AIRMoN data quality.

CASTNet -

Gary Lear - U.S. Environmental Protection Agency Clean Air Markets Division

- Reported that CASTNet data through May 2000 are available at www.epa.gov/acidrain/castnet.

Program Office -

Van Bowersox, NADP Coordinator - Illinois State Water Survey

- Mentioned the requirement for a program review this year and submission of a renewal proposal at the Agricultural Experiment Station Directors' spring meetings.
- Displayed NTN status map with 226 active sites as of October 2000.
 - New sites: MN32-Voyageurs NP (Sullivan Bay), CA96-Lassen Volcanic NP (Manzanita Lake), MD18-Assateague Island, CA67-Joshua Tree NP (Black Rock)
 - Inactive sites: NM09-Cuba
 - Pending sites: SC05-Cape Romain NWR, HI99-Hawaii Volcanoes NP (Thurston), MI46-Seney NWR (Headquarters) with 8 sites under consideration
- Displayed AIRMoN status map with 9 active sites as of October 2000.
 - New site: WV99-Canaan Valley Institute
 - Inactive site: OH09-Oxford
- Listed the products developed and distributed by the Program Office in 2000: *Nitrogen in the Nation's Rain* brochure (distributed 2300), *National Atmospheric Deposition Program 1999 Annual Summary*, *2001 CALendar*, *NADP 2000 - Ten Years After the Clean Air Act Amendments*, *Adirondacks in the Balance*, and *Quality Assurance Report, National Atmospheric Deposition Program, 1998, Laboratory Operations, Central Analytical Laboratory*.
- Showed the issue of the journal *Atmospheric Environment* with its Special NADP Section containing seven articles from the 1998 Technical Committee Meeting in St. Petersburg, FL.
- Reported on recent government reports using NADP data: 1) US EPA's *Deposition of Air Pollutants to the Great Waters - Third Report to Congress*, 2) US EPA's *National Air Quality and Emissions Trends Report, 1998*, and 3) US GAO's *ACID RAIN - Emissions Trends and Effects in the Eastern United States*.
- Acknowledged USGS support for the recently completed National Science Teachers Association's *INSIDE RAIN - Working with Precipitation Chemistry Data* curriculum for students in grades 9 - 12. This curriculum has seven sets of activities, all involving use of data and information from the NADP web site.
- Reported that the NADP web site received the Internet Scout Project's special recognition for its "high-quality, accurate, up-to-date, well-organized, and easy-to-navigate web site, presented in a stylistically and graphically pleasing manner." The *Scout Science and Engineering Report* twice featured the NADP web site: (1) the

entire web site in September 1999 (Volume 2, Number 25), and (2) the brochure *Nitrogen in the Nation's Rain*, available as a pdf document, in July 2000 (Volume 3, Number 22).

Clyde Sweet, NADP Associate Coordinator, Toxics - Illinois State Water Survey

- Displayed MDN status map with 48 active sites as of October 2000.
 - New sites: AL03-Centreville, GA40-Yorkville, MS22-Oak Grove , NF09-Newfoundland, PA30-Erie, PA72-Milford
 - Inactive sites: NH00-Laconia & NH05-New Castle
 - Pending sites: 12 under consideration
- Projected 55 active sites by the end of calendar year 2000 with several sites interested in following a daily sampling protocol.
- Reported that MDN data through June 2000 were delivered to the Program Office.
- Conducted a HAL review in June and the final report is available. Review team members were Mary Ann Allen, John Robertson, Mark Peden, and Greg Lawson.
- Reported on three documents in preparation, a journal article on 1995-1999 MDN data, an informational brochure describing the MDN, and a white paper addressing trace metal issues.

Subcommittee Reports —

Network Operations Subcommittee (NOS) -

Jane Rothert, NOS Chair, Illinois State Water Survey

- Elected 2000-2001 officers: John Shimshock (Chair), Susan Johnson (Vice Chair), Kristi Morris (Secretary).
- NOS actions
 - (1) HAL audit report to be stored as pdf document and made available on request.
 - (2) Set an external review team (someone from Dave MacTavish's office and someone from the Data Management and Analysis Subcommittee, possibly Gary Stensland) for the CAL QA plan, which is currently under internal CAL review.
 - (3) Established a team (Scott Dossett, Dennis Lamb, Mark Nilles, and Rick Artz) which will monitor the progress of the new collector design and development.
 - (4) Named an ad hoc committee (Scott Dossett, Luther Smith, Bob Larson, and Clyde Sweet -chair) that will prepare a document on site characterization, looking at urban, non-urban and coastal classifications.
 - (5) Approved the Water Survey's sensor heater design with the stipulation that the performance of the 11 sensors now available be comparable to the ACM sensor.
 - (6) Accepted the Loda-built collector as a comparable replacement for the ACM collector.
 - (7) Approved a daily sampling protocol for MDN with the amendment that daily data cannot be compiled into weekly totals without NOS approval of equivalency of composite daily and weekly measurements.
 - (8) Approved a new AIRMoN Field Observer Form.

Motion: Scott Dossett moved to accept the NOS report. Dennis Lamb seconded.

Discussions: Questions were raised about whether the Loda-built collector can be used in MDN and the sense of the discussion was that it can.

Motion carried.

Data Management & Analysis Subcommittee (DMAS) -

Bob Brunette, DMAS Chair, Frontier Geosciences, Inc.

- Elected 2000-2001 officers: Gary Lear (Chair), Bob Larson (Vice-Chair/Secretary).
- DMAS actions
 - (1) Changed two sample validation rules - A) samples with sampling periods shorter than 6 days will now be valid, as long as all other validation criteria are met; B) sampling periods (i.e., on to off time intervals of samples) with 0.02 inches or less of precipitation are considered valid for calculating data completeness, whether or not the sample chemistry is valid; if the chemistry is valid, the sample is used in calculating averages, otherwise it is not. Calculation of annual completeness criteria by the Program Office will be amended to account for these new rules.
 - (2) Set the spring 2001 meeting as the target for applying a draft site classification scheme on a sub-set of NTN sites.
 - (3) Reported that back trajectories for AIRMoN data points will soon be available on the web site and back trajectories for NTN samples will follow by the spring meeting.
 - (4) Encouraged the Program Office to extend the trends plots now available for NTN data to AIRMoN and MDN data.

Motion: John Sherwell moved to accept the DMAS report. Van Bowersox seconded.

Discussion: Gary Lear asked if the entire data set would be re-validated following the rule change for short duration samples. Bob Larson said that it would. Bob determined that the rule change affects 270 samples.

Motion carried.

Environmental Effects Subcommittee (EES) -

John Sherwell, EES Co-Chair, Maryland Department of Natural Resources

- EES actions
 - (1) Endorsed the site classification efforts begun by the Data Management and Analysis Subcommittee as a way to identify existing sites that do not meet all NADP siting criteria.
 - (2) Discussed the proposed list of trace metals (As, Cd, Cu, Cr, Mn, Ni, Pb, & Zn) that are under consideration for MDN sites. These metals are consistent with EPA's list of toxic metals. Formate may also be of interest to researchers looking for a signal for natural gas combustion.
 - (2) Need a concise informational brochure that describes the MDN and discussed plans for an educational brochure, similar to *Nitrogen in the Nation's Rain*, but for mercury.
- Expressed a need to measure total nitrogen to determine how much nitrogen is missed by measuring only the inorganic nitrogen from nitrate and ammonium, as is the case for NTN and AIRMoN.

Motion: Gary Lear moved to accept the EES report. Gary Stensland seconded.

Discussion: There were questions about the scope of the informational mercury brochure and whether it would include other metals, such as lead or cadmium, etc. The conclusion was that the brochure would focus on mercury. Interest was expressed in adding pesticides to the list of organic pollutants of interest to the research community. This was acknowledged as a good addition to the list.

Motion carried.

Nominating Committee —

Joel Frisch reported the deliberations of the nominating committee, which had been appointed by Technical Committee Chair Jim Lynch. Nominating committee members were Joel Frisch (U.S. Geological Survey), Dennis Lamb (Penn State University), and Wayne Banwart (Lead Administrative Advisor). Richard Grant of Purdue University was nominated for Technical Committee Secretary for the 2000-2001 term. He agreed to the nomination.

Motion: Van Bowersox moved the nominations be closed. Jim Lynch seconded.

Motion carried.

Rich was approved by acclamation.

Technical Committee Officers for 2000-2001 are:

Chair: Rick Artz

Vice Chair: Kathy Tonnessen

Secretary: Richard Grant

Past Chair: James Lynch

2001 Technical Committee Meeting —

Jim Lynch presented possible meeting places suggested by Kathy Tonnessen for the 2001 meeting: Double Tree Inn, Missoula, MT; Fisherman's Wharf Holiday Inn in San Francisco; Asilomar Conference Center in Pacific Grove, CA; YMCA in Estes Park, CO; Marconi Conference Center in Port Reyes, CA; a conference center in Seattle, Salt Lake City, or Park City, UT; or Minneapolis.

The N2001, The Second International Nitrogen Conference, is being held at the Bolger Conference Center near Washington, D.C., October 14-18, 2001. Organizers are Jim Galloway and Ellis Cowling, who are long-time members of the NADP Technical Committee. Jim has suggested that NADP hold its 2001 scientific meeting in conjunction with this nitrogen conference.

Closing —

Jim Lynch thanked everyone for their efforts and introduced Rick Artz as NADP Chair for 2000/2001. Rick adjourned the meeting.

PARTICIPANT LIST

Scott F. Archer - Bureau of Land Management

Richard Artz - NOAA-Air Resources Laboratory

Andrew Aulisi - Environmental Defense

Sue Bachman - Illinois State Water Survey

Wayne L. Banwart - University of Illinois

Jack Beach - N-Con Systems Co. Inc.

Martha Beach - N-Con Systems Co. Inc.

Angela Benedict-Dunn - Saint Regis Mohawk Tribe Environment

Edward Bennett - New York State Department of Environmental Conservation

Rona Birnbaum - U.S. Environmental Protection Agency

Van C. Bowersox - Illinois State Water Survey

Garry Boynton - New York State Department of Environmental Conservation

Elvira Brankov - New York State Department of Environmental Conservation

Patricia Brewer - SAMI Technical Coordinator
Bob Brunette - Frontier Geosciences
Anthony Buda - Penn State University
Douglas Burns - U.S. Geological Survey
Tom Butler - Cornell University
Mark Buzel - AES NY
John Cahill - New York State Department of Environmental Conservation
Mark S. Castro - Appalachian Laboratory
Boris Chevone - Virginia Tech
Kevin Civerolo - New York State Department of Environmental Conservation
David Cleverly - National Center for Environmental Assessment
James E. Close - New York State Department of Environmental Conservation
David Clow - U.S. Geological Survey
Brooke Conley - U.S. Geological Survey
Brigita Demir - Illinois State Water Survey
David R. DeWalle - Penn State University
Scott Dossett - Illinois State Water Survey
Kathy Douglas - Illinois State Water Survey
Charles Driscoll - Syracuse University
Dan Dudek - Environmental Defense
B. Allen Dunn - Clemson University, School of Natural Resources
Thomas R. Fisher - University of Maryland
Joel Frisch - U.S. Geological Survey
Cari Furiness - North Carolina State University
Jim Galloway - University of Virginia
Philip J. Galvin - New York State Department of Environmental Conservation
Thomas Gentile - New York State Department of Environmental Conservation
John Gordon - U.S. Geological Survey
Richard H. Grant - Purdue University
Richard Haeuber - U.S. Environmental Protection Agency
William G. Hagar - University of Massachusetts -- Boston
Richard Hallett - USDA Forest Service
Karen Harlin - Illinois State Water Survey
Raycine M. Hodo - Smith College
Christian Hogrefe - University at Albany
Gerrit Hoogenboom - University of Georgia
Selma Isil - Environmental Science and Engineering
Mari Ito - State University of New York
Andrew Johnson - Maine Department of Environmental Protection
Susan R. Johnson - Minnesota Pollution Control Agency
Daniel D. Jones - USDA Cooperative State Research, Education, & Extension Service
Janet Joseph - New York State ERDA
Melissa Kalicin - Syracuse University
Neil Kamman - Vermont Department of Environmental Conservation
Victoria R. Kelly - Institute of Ecosystems Studies
John Kent - New York State Department of Environmental Conservation
Richard Kobe - Michigan State University
W. A. Kretser - New York State Adirondack Park Agency
Dennis Lamb - Penn State University
Bob Larson - Illinois State Survey
Natalie Latysh - U.S. Geological Survey
Thomas F. Lavery - ESE / CASTNet
Gregory Lawrence - U.S. Geological Survey
Gary Lear - U.S. Environmental Protection Agency
Preston Lewis - New York State Department of Environmental Conservation

David N. Lewis - Institute of Ecosystems Studies
Steve Lindberg - Oak Ridge National Laboratory
Gary M. Lovett - Institute of Ecosystem Studies
Malcolm Lynch - C.C. Lynch & Associates, Inc.
James A. Lynch - Penn State University
Andrew Major - U.S. Fish & Wildlife Service
Elizabeth G. Malcolm - University of Michigan
Jacqueline Mann - University of Maryland
Robert Mason - Chesapeake Biological Laboratory
Ray Masters - Adirondack Ecological Center
Lee Maull - Dynamac Corporation
Thomas J. McGuire - New York State Department of Environmental Conservation
Brian McLean - U.S. Environmental Protection Agency
Rafael Mendez-Tejeda - University of Puerto Rico in Carolina
Mark A. Mesarch - University of Nebraska - Lincoln
Michael Miliani - New York State Department of Environmental Conservation
Erik K. Miller - Ecosystems Research Group, Ltd.
L. Grady Moore - U.S. Geological Survey
Kristi Morris - U.S. Fish & Wildlife Service
Mark Nilles - U.S. Geological Survey
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John K. Robertson - JR Consulting
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Joe Scudlark - University of Delaware
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Gopal Sistla - New York State Department of Environmental Conservation
Robert Sliwinski - New York State Department of Environmental Conservation
Luther Smith - ManTech Environmental Technology, Inc.
Ariel F. Stein - Penn State University
Gary Stensland - Illinois State Water Survey
Clyde Sweet - Illinois State Water Survey
Mark Taylor - Pennsylvania State University
Jack T. Tessier - SUNY at Syracuse
Elizabeth Thorndike - Center for Environmental Information
Alan Van Arsdale - U.S. Environmental Protection Agency
Mark Watson - New York State ERDA
David Whittall - University of North Carolina at Chapel Hill
James C. White - Center for Environmental Information
Joy Wiecks - Fond du Lac Environmental Program

Steve Wolcott - U.S. Geological Survey
Rosemary Wolfe - U.S. Environmental Protection Agency