

National Atmospheric Deposition Program (NRSP-3)
Technical Committee Meeting
October 24-26, 2006, Norfolk, Virginia

General Business Meeting Minutes

Wednesday, October 25, 2006

National Atmospheric Deposition Program (NADP) Chair, Kristi Morris, called the 30th NADP Technical Committee Meeting to order. She welcomed participants and invited them to introduce themselves and state their affiliation. Participants in the business meeting and scientific symposium are listed at the end of these minutes.

Action – Approve Meeting Minutes: Approve the minutes of the 2005 NADP Technical Committee meeting on September 28, 2005, in Jackson, Wyoming.
Moved, Seconded, Carried.

Reports

Network Operations Subcommittee (NOS) – Mike Kolian (US Environmental Protection Agency), NOS Chair

Mike briefly described the NOS purview and summarized subcommittee activities and actions, focusing on the fall meeting:

- Received a report on wind shields in use at NADP sites and discussed the wider use of wind shields for raingages and collectors. The NOS tabled a motion requiring wind shields on gages, seeking more specific information on shield types and installation.
- Reported on actions to improve snow capture and retention at high-elevation sites by retrofitting NTN collectors to accommodate a deeper bucket and more robust drive mechanism. These modifications will be tested at three Colorado sites during the 2006/07 winter season. High-elevation sites typically fail to meet the annual data completeness criteria due to poor collection efficiency and the objective of this effort is to improve the collection efficiency and representativeness of data from these sites.
- Reported that Matt Layden of the Illinois State Water Survey had been elected NOS Secretary. Other 2006/07 officers are: Marty Risch (USGS), Chair; and Greg Wetherbee (USGS), Vice Chair.

Joint Subcommittee – Mike Kolian (US Environmental Protection Agency), NOS Chair

Mike presented the report on behalf of the NOS, the Data Management and Analysis Subcommittee, and the Ecological Responses and Outreach Subcommittee, that met in joint session:

- Approved a collector (model MDN 00-125-2 Automatic Precipitation Sampler) sold by N-CON Systems Company, Inc., of Crawford, Georgia, as an alternative wet deposition collector for use at Mercury Deposition Network (MDN) sites.

- Received a report from Central Analytical Laboratory (CAL) Director, Karen Harlin, who summarized the findings and initial CAL responses to the on-site review of CAL operations conducted in June 2006. The final report by the review team, accompanied by the CAL response, will be delivered later.

Data Management and Analysis Subcommittee (DMAS) – Chris Rogers (MACTEC, Inc.), DMAS Chair

Chris reported on DMAS activities:

- Summarized DMAS discussions about the tasks and timelines for incorporating the approved electronic raingages into field site, laboratory, and Program Office operations.
- Reported on Program Office work to redesign the NADP web site, beginning with the home page. Plans are to roll out the newly designed site in spring 2007. Related to the redesign work, a new logo, featuring different colors and a simpler design, was proposed. The DMAS approved the color change, though the subcommittee seeks additional input and review of the logo design. To that end, new designs and ideas can be sent to Chris Rogers (cmrogers@mactec.com), who will present the alternatives at the spring subcommittee meetings, where a final recommendation is expected.
- Reported on progress in finalizing and posting methyl mercury data on the NADP web site. Methyl mercury measurements are reported at sites where sponsors pay for these additional MDN Analytical Laboratory (HAL) measurements. At most sites where methyl mercury is measured, the HAL withdraws an aliquot from each of four successive one-week samples and combines the aliquots to report a four-week composite concentration. Validation of the methyl mercury data requires consideration of the validity of the original samples and the composite. DMAS discussed additional review that is needed at the HAL and Program Office in order to finalize these data.
- Recommended that the Quality Assurance Advisory Group address the issue of the effect of equipment changes on NADP data. Two electronic precipitation gages have been approved for use at NADP sites and the subcommittees, meeting jointly, have recommended approval of the N-CON collector for use in the MDN. The changes in bias and precision resulting from the new equipment need to be evaluated and the results communicated to data users, especially where changes are significant and can affect trends.
- Reported that Gerard van der Jagt of Frontier Geosciences, Inc., had been elected DMAS Secretary. The 2006/07 DMAS Chair is John Ingrum of the Illinois State Water Survey.

Ecological Responses and Outreach Subcommittee (EROS) – Pam Padgett (USDA- Forest Service, Riverside Fire Laboratory), EROS Chair

Pam described the EROS charge to increase meeting participation (outreach) and reported on EROS activities:

- Described the effort to develop a brochure, entitled *Welcome to NADP*, in order to provide newcomers with background information on the program and its committee structure. Thanked EROS members Maggie Kerchner and Kristi

Morris for leading the development of this new brochure, which was included with the annual meeting registration materials.

- Reported that EROS had met jointly with DMAS to learn about the NADP web site re-design (see DMAS report, above).
- Reported on discussions about NADP as a State Agricultural Experiment Station (SAES) National Research Support Project (NRSP) and ways to increase the involvement of SAES scientists who have signed on as NRSP-3 (NADP) participants.
- Discussed a network analysis plan that would address changes due to increasing network urbanization.
- Reported that EROS had met jointly with the Critical Loads ad hoc committee (see Executive Committee report, below).
- Pam Padgett will remain the 2006/07 EROS Chair.

Quality Assurance and Advisory Group (QAAG) – Greg Wetherbee (US Geological Survey), QAAG member

Greg briefly reported on analytical laboratory reviews:

- Described plans for the upcoming review of HAL operations, including site support, sample analysis, and data management. Review team members who have agreed to serve include: Greg Wetherbee, US Geological Survey and review team leader; Steve Brooks, NOAA; Sean Lawson, Vermont Monitoring Cooperative; and Andrew Heyes, Chesapeake Biological Laboratory. Ad hoc team members will include Bob Larson, NADP Data & Information Manager, and Chris Lehmann, NADP Quality Assurance Manager.

Executive Committee (EC) – Kristi Morris (National Park Service), NADP Chair

Kristi summarized EC actions from its July and October 2006 meetings:

- Reported that the EC had accepted the NOS recommendation to approve the N-CON collector (see NOS report, above) for use in the MDN and directed the Program Office to send a letter informing prospective new and existing sites of this EC action; existing sites would be encouraged to collocate the N-CON and existing collectors for one year, so that collector performance and measurements could be compared and documented.
- Reported that the EC had accepted all subcommittee reports with the exception of the proposed new logo; although the new logo colors were accepted, the design will be subject to additional review and input from the NADP community.
- Reported that the EC had accepted the International Center for First-Year Undergraduate Chemistry Education (ICUC) at the University of Illinois as an institutional member of the NADP. The ICUC recently worked with the Program Office to complete a Spanish language translation of the brochure, *Nitrogen in the Nation's Rain*, which is available in hard-copy form at this meeting or on-line (<http://nadp.sws.uiuc.edu/lib/brochures/nbrochespanol.pdf>) Cathy Middlecamp, an ICUC member, will present some uses of NADP data in the college classroom during a later session at this meeting.

- Reported on the creation of the Critical Loads AD hoc committee (CLAD), which will report to the NADP EC. Rick Haeuber, US Environmental Protection Agency, will serve as CLAD Chair. The CLAD will provide a venue for multi-agency discussions related to the science and potential policy implications of establishing critical loads for atmospheric deposition in the United States. The multi-agency NADP was viewed as an appropriate home for the CLAD, because of the involvement of NADP participants in critical loads issues and the existing infrastructure for facilitating meetings. A technical session addressing critical loads will occur at this meeting.
- Summarized the work of the advocates (Eric Prestbo, Frontier Geosciences, Inc., Marty Risch, US Geological Survey, David Schmeltz, US Environmental Protection Agency, and David Gay, NADP Program Office) of an initiative to expand the NADP measurement system to include airborne mercury species and meteorological variables as input for modeling mercury dry deposition. Several meetings have led to a set of guiding principles and best practices, as well as a draft proposal for a mercury dry deposition network. Eric Prestbo will present a more complete description of this effort during the session on mercury deposition later in this meeting.
- Reported briefly on the Agricultural Air Quality Workshop, which occurred in June in Potomac, Maryland. Ray Knighton, USDA-Cooperative State Research, Education, and Extension Service, was an organizer of this meeting, which featured presentations by NADP participants. The workshop proceedings are available on-line at <http://www.Esa.org/airworkshop>.

Action: Approve Report: Approve Executive Committee report.
Moved, Seconded, Carried.

New Business

Proposal for Streamlining the NADP Committee Management Structure – Mark Nilles (US Geological Survey), Budget Advisory Committee Co-Chair

Mark described a proposal to change the reporting structure and purview of the NADP Technical and Executive Committees. This proposal, which had been under review for more than a year by the Executive Committee, was prepared by Past NADP Chair, Cari Furiness (North Carolina State University), current NADP Chair, Kristi Morris (National Park Service), EROS Chair, Pam Padgett (USDA – Forest Service), and Budget Advisory Committee Co-Chair, Mark Nilles (US Geological Survey). Don Snyder, Western Regional SAES Advisor to NRSP-3, provided input and suggestions, as well. Mark presented a diagram of the current NADP organizational structure, depicting the committee and subcommittee reporting structure shown in the NADP *Quality Management Plan* (with the Ecological Responses and Outreach Subcommittee replacing the Environmental Effects Subcommittee). He described the reasons for developing and supporting a proposal to modify this structure by having Subcommittees, which are advisory, report only to the decision-making Executive

Committee, rather than to both the Executive and Technical Committees. Changing the NADP committee structure:

- Reduces the number of committees and subcommittees where reports need to be presented or proposals need to be introduced, which will eliminate duplicative presentations, streamline the decision-making process, and possibly result in NADP being more responsive to change.
- Ensures that decisions will be rendered by officers and subcommittee chairs who are elected and are representative of and accountable to the NADP membership and stakeholders.
- Maintains a participatory role for interested individuals and organizations by allowing anyone who attends a subcommittee meeting to introduce and vote on motions.

Mark showed the proposed new NADP committee structure with the Technical Committee eliminated from reporting and decision-making roles. This eliminates the duality of having the Subcommittees also report to a decision-making Technical Committee. He suggested that the annual scientific meeting continue to have a session during which there would be a “state of the network” report, an introduction to subcommittee activities, and a report of new initiatives.

Action – Change NADP Committee Structure: Approve the proposal to change the NADP committee structure by having subcommittees report only to the Executive Committee and eliminating the Technical Committee in this reporting structure and as a decision-making body.

Moved. Seconded. Carried.

Clarification: This action removes the Technical Committee from the NADP management structure; however, Technical Committee membership remains as described in Table 2-1 of the NADP *Quality Management Plan*.

Mark continued by presenting the list of eight elected voting members of the NADP Executive Committee. Voting members are the Program Chair, Vice-Chair, Secretary, Past Chair, Budget Advisory Committee Co-Chair, and Chairs of each of the three Subcommittees (NOS, DMAS, and EROS). He also mentioned that there are non-voting, ex-officio members, including “administrative advisors,” one representing each of the four State Agricultural Experiment Station (SAES) regions at NRSP-3 meetings. (NADP is SAES NRSP-3.) He described a proposal to add an NRSP representative as a voting Executive Committee member, raising to nine the number of voting members.

Action – Change NADP Executive Committee Voting Members: Approve the proposal to add an NRSP representative to the voting membership of the Executive Committee.

Moved. Seconded. Discussion: The NRSP representative would need to be elected or appointed and could not be one of the “administrative advisors” according to SAES rules. There would be eight voting members in addition to the Chair, who would vote when there is a tie vote among the other eight members.

Accepted as Friendly Amendments. Motion Carried.

Presentation of 2006 Site Operator Awards – Kristi Morris (National Park Service), NADP Chair

Kristi Morris announced the 2006 Operator Awards.

NTN Awards

5-Year Awards

Site	Name
AZ03	Hernan Abreu
CAN5	Serge D'Amour
CT15	George Askew
FL05	Robert Quarles
GA09	Ronald Phernetton
NY22	Angela Benedict-Dunn
SC07	Amy Dukes
TX21	Edmond Johnson

10-Year Awards

Site	Name
CA99	Katy Warner
KS32	Curt Sauer
KY35	Jeff Stamper
NM12	Abbie Reaves
TX10	Terry Rossignol
WA24	Robert Barry
WI37	Mark Sundeen

15-Year Awards

Site	Name
CO22	Mark Lindquist
CO91	Todd Pitcher
IA08	Robert Zach
ND11	Gayle Cook
NY98	Douglas Wolfe
OH49	Mike Franko
PA29	Don Dorn
WI28	Barry Benson
WI98	Karen Teed

20-Year Awards

Site	Name
KS07	Dan Mosier
MI99	David Toczydlowski
MS30	Hilliard Griffin
NE99	Jim Goeke
TX03	Domingo Martinez
VT01	Dan Taylor
WI09	Cathy McLain
WV18	John Pearce

25-Year Awards

Site	Name
CA45	Charles Vaughn
MI09	Robert Vande Kopple

MDN Awards 2006

10-Year Awards

Site	Name
MN18	Christine Barton
MN23	Mary McGuire
MN27	Lee Klossner
WI08	Ron Perala
WI09	Cathy McLain

Acknowledgment and Appreciation

Richard Cline will retire from the USDA Forest Service and has served as the Forest Service representative to the NADP for more than 19 years. Dick received a round of applause in appreciation of his many years of service and commitment to the NADP.

Nominating Committee

The nominating committee (Cari Furiness – Past Chair, Mark Nilles – Budget Advisory Committee Co-Chair, and Pam Padgett – EROS Chair) brought forward Dr. Eric Prestbo, Frontier Geosciences, Inc., for 2006/07 NADP Secretary. Eric is a senior scientist whose research has focused on atmospheric mercury and trace metal chemistry. He is the science advisor for the MDN Analytical Laboratory at Frontier Geosciences, Inc., and has agreed to serve, if elected. Nominations were invited from the floor.

Action: Nomination of 2006/07 NADP Secretary: Nominated Eric Prestbo and nominations closed.

Moved, Seconded, Carried.

2007 Spring Subcommittee Meetings – Marty Risch (US Geological Survey), 2006/07 NOS Chair.

Marty announced that NOS, DMAS, and EROS meetings have been scheduled for 10-12 April 2007, in Burlington, VT. A field trip to the Proctor Maple Research Center in Underhill, VT, is being planned for Tuesday, 10 April.

**2007 Annual Meeting and Scientific Symposium – Tom Butler (Cornell University),
NADP Vice Chair**

Tom announced that the 2007 annual meeting will be held in Boulder, CO, beginning on Monday, 10 September, and ending on Thursday, 13 September. The theme is “Wet & Dry Deposition Measurements: Do We Have the Total Picture?” Emphasis will be placed on the need to measure pollutants, such as organic nitrogen in precipitation and ammonia in air, that are not measured routinely but are needed to complete our understanding of nitrogen deposition and cycling in the atmosphere. Other theme-related topics will be mercury dry deposition and local and near-source deposition. Session organizers and their areas of interest are: Eric Prestbo – mercury; Tamara Blett and Rick Haeuber - critical loads; Mark Williams – arctic and alpine research in the Rockies; Tom Butler – nitrogen; and un-named – ecosystem effects. A special session on greenhouse gases is being considered as well. Tom invited input on the meeting organization and content. A field trip is being planned for Thursday, 13 September; several locations, e.g., Niwot Saddle or Rocky Mountain National Park, are being considered.

Meeting adjourned -- NADP Chair, Kristi Morris, gaveled the meeting to a close.

**NADP 2006 Annual Meeting and Scientific Symposium
October 24-26, 2006, Norfolk, Virginia
Participant List**

John M. Ackermann
U.S. EPA, Region 4

Rochelle Araujo
U.S. Environmental Protection Agency

Richard S. Artz
NOAA - Air Resources Lab

Sean Backus
Environment Canada

Daniel Bain
University of Pittsburgh

Alex Barron
Virginia DEQ

Jack Beach
N-Con Systems Co. Inc.

Mark Beaubien
Yankee Environmental Systems, Inc.

William Beven
ATS-Chester Engineers

Tamara Blett
National Park Service

Van C. Bowersox
Illinois State Water Survey

Gene Brooks
Cumberland, VA

Bob Brunette
Frontier Geosciences - HAL

Douglas Burns
U.S. Geological Survey

Thomas J. Butler
Cornell University

Mark S. Castro
Appalachian Laboratory

Kevin Cavender
U.S. EPA/AQAD/AAMG

Lia Chasar
U.S. Geological Survey-FISC

Kevin Civerolo
NYS Dept of Environmental Conservation

Richard G. Cline
USDA Forest Service

Erika Cohen
USDA Forest Service

Jeffrey L. Collett
Colorado State University

Gary Conley
Ohio University

Mark Connolly
U.S. Fish and Wildlife Service

Jack Cosby
University of Virginia

John Dalziel
Environment Canada

Robin Dennis
U.S. EPA - NOAA-ASMD

Doug Disney
Frontier Geosciences

Tracy Dombek
Illinois State Water Survey

Kathy Douglas
Illinois State Water Survey

John Drese
Dynamac Corp

Steve Drevik
Agilaire/Tekran

Emily M. Elliott
University of Pittsburgh/USGS

Mark Engle
U.S. Geological Survey

Joan Fleser
New York State DEC

Joel Frisch
U.S. Geological Survey

Mark Garrison
ERM

Cynthia Gilmour
Smithsonian Environmental Research Center

Rich Grant
Purdue University

Karen Harlin
Illinois State Water Survey

Andrew Heltibridle
Maryland Department of the Environment

Thomas Holsen
Clarkson University

Bob Howarth
Cornell University

John Ingrum
Illinois State Water Survey

Gerard Van der Jagt
Frontier Geosciences

Tom Jones
ATS-Chester Engineers

Margaret Kerchner
NOAA Office of Oceanic &
Atmospheric Research

Eladio Knipping
EPRI

David Krabbenhoft
U.S. Geological Survey

Dennis Lamb
Penn State University

Robert Larson
Illinois State Water Survey

Gregory B. Lawrence
U.S. Geological Survey

Rey Forte
U.S. Environmental Protection Agency-CAMD

Cari Sasser Furiness
North Carolina State University

David Gay
Illinois State Water Survey

Courtney Gorin
CSU-Atmospheric Science Department

Richard Haeuber
U.S. Environmental Protection Agency

Eric Hebert
EEMS

Bruce Hicks
ERT Inc,

Dr. John Hom
USDA Forest Service – NE

Kemp Howell
MACTEC Engineering & Consulting, Inc

Selma Isil
MACTEC, Inc. CASTNet

Andrew Johnson
Maine DEP

Jerry Keeler
University of Michigan

Dr. Raymond E. Knighton
USDA-CSREES-Natural Resources and
Environment

Michael Kolian
U.S. EPA Clean Air Markets Division

Gail Lacy
U.S. Environmental Protection Agency

Matt Landis
U.S. Environmental Protection Agency

Natalie Latysh
U.S. Geological Survey/BQS

Matt Layden
Illinois State Water Survey

Gary Lear
U.S. Environmental Protection Agency

Leonard Levin
EPRI

Susan Lingenfelter
U.S. Fish and Wildlife Service

Chris Loughner
University of Maryland

Patrick Bart Malone
New York State – DEC

Cathy Middlecamp
University of Wisconsin-Madison

Chris Moore
University of Virginia

Alfred Moyle
Penn State University

Mark Nilles
U.S. Geological Survey

Dr. Pamela Padgett
USDA Forest Service

Linda Pardo
USDA Forest Service

Curt Pollman
Frontier Geosciences

Ellen Porter
National Park Service (AIR)

Brittany Potter
Millersville University

Eric M. Prestbo
Frontier Geosciences

William Reay
Virginia Institute of Marine Science

Martin Risch
U.S. Geological Survey

Wayne Robarge
North Carolina State University

Christopher M. Rogers
MACTEC, Inc.

Christopher Lehmann
Illinois State Water Survey

Timothy E. Lewis
U.S. Environmental Protection Agency

Lewis Linker
U.S. EPA Chesapeake Bay Program Office

James A. Lynch
Penn State University

Mark Mesarch
University of Nebraska – Lincoln

Eric K. Miller
Ecosystems Research Group, Ltd.

Kristi Morris
National Park Service

Edward Nantamu
Fairfax County Health Department

Conniesue Oldham
U.S. Environmental Protection Agency

Dr. Hans Paerl
University of North Carolina at Chapel Hill

Roland Pesch
Vechta University

Dr. Noreen Poor
University of South Florida

Norm Possiel
U.S. Environmental Protection Agency

Sandra A. Preaux
University of Maryland

John D. Ray
National Park Service-ARD

Cathy Richardson
Maine Department of Environmental Protection

Chul-Un Ro
Meteorological Service of Canada

Bruce Rodger
WI Department of Natural Resources

Vicki Sandiford
U.S. EPA

Dr. Richard Scheffe
U.S. Environmental Protection Agency

Kenneth Schiff
Southern CA Coastal Water Research

Janea Scott
Environmental Defense

Timothy Sharac
U.S. Environmental Protection Agency

Van Shrieves
Sam Nunn Atlanta Federal Center

Christopher Smith
Maryland Department of the Environment

Bob Stroik
NPS-Center for Urban Ecology

Mark Sutcliffe
Millersville University

Arnout Terschure
EPRI

Krish Vijayaraghavan
AER

Dennis Wentz
U.S. Geological Survey

David Whittall
NOAA/NOS

Bret Schichtel
National Park Service

David Schmeltz
U.S. Environmental Protection Agency - CAMD

Joseph R. Scudlark
University of Delaware

John Sherwell
Maryland Department of Natural Resources

James Sickman
University of California

Paul E. Stacey
Connecticut DEP Water Bureau

Timothy Sullivan
E&S Environmental

Kevin Sweeney
Hach Environmental

Robert Tordon
Environment Canada

Justin Walters
Southern Company

Greg Wetherbee
U.S. Geological Survey/BQS

Susan White
NOAA/Estuarine Reserves Division