

**The National Atmospheric Deposition Program (NRSP-3)
 Technical/Executive Committee Meeting
 August 29-30, 2001, Champaign, Illinois
 Minutes**

Wednesday, August 29, 2001

Program Chair, Richard Artz, called the Technical Committee's Executive Committee to order at 3:10 p.m. The agenda was reviewed and Rick invited members to introduce themselves.

Attendance List —

Richard Artz	NADP Chair NOAA - Air Resources Lab
Kathy Tonnessen	NADP Vice Chair National Park Service
Richard Grant	NADP Secretary Purdue University
James Lynch	NADP Past Chair Penn State University
John Shimshock	Chair, Network Operations Subcommittee Advanced Technology Systems, Inc
Gary Lear	Chair, Data Management & Analysis Subcommittee U.S. Environmental Protection Agency
John Sherwell	Chair, Environmental Effects Subcommittee Maryland Department of Natural Resources
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Dan Jones	National Program Leader, USDA/CSREES
Wayne Banwart	Lead Administrative Advisor, SAES - North Central Region University of Illinois
Lee Sommers	Advisor, SAES - Western Region Colorado State University
Mark Nilles	Advisor, NAPAP - National Trends Network USGS-WRD
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Rona Birnbaum	Representative, USEPA
Richard Cline	Representative, USDA-Forest Service
Gary Lear	Representative, CASTNet USEPA
Kristi Morris	Representative, National Park Service
Van Bowersox	NADP Program Coordinator Illinois State Water Survey
Karen Harlin	NADP Assistant Program Coordinator Illinois State Water Survey
Clyde Sweet	Associate Coordinator for Toxics Illinois State Water Survey
Kathy Douglas	Recorder, NADP Program Office, Illinois State Water Survey
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Scott Dossett	Guest, Illinois State Water Survey
Scott Faller	Guest, USEPA
Joel Frisch	Guest, USGS
Jeff Welker	Guest presenter, Colorado State University

NADP Field Equipment Modernization Initiative —

Precipitation Chemistry Collectors

Scott Dossett, Guest, NADP Program Office, Illinois State Water Survey

- Presented the results of splash, freeze-down, and other tests performed over an eight-month period on N-CON Systems, Inc., ADS 2000, a new wet-only deposition collector purchased (\$3,200) by the Program Office.
- Reported on positive test results of the ADS 2000 collector: (1) no freeze-downs occurred during tests in a walk-in freezer and in the field; (2) collector operates satisfactorily under DC power; (3) mechanical and electrical systems generally function well (with the exceptions noted below); and (4) optical sensor discriminates between wet and dry weather and does not trigger in fog.
- Reported on negative test results of the ADS 2000 collector: (1) only two corners of the square lid are driven, and strong winds have been observed to force the free corners out of position, jamming the collector; (2) counter weights designed to keep the free lid corners in position fail to keep the lid positioned properly in high winds.
- Described additional collector tests that are planned.

Rick Artz, Program Chair

- Presented a report on the status of the U.S. Department of Commerce Small Business Innovation Research Initiative award to Yankee Environmental Systems (YES) to design a new wet-only deposition collector.
- Reported that Phase I (design feasibility) had been completed successfully.
- Reported that YES had been notified of a Phase II (develop working prototype) award covering a two-year period at a total cost of \$300K. YES promises to have a functioning model in two years and has a mock-up displayed at this meeting.

Automated Precipitation Gages

Bruce Baker, Guest by Phone, National Climate Data Center, Climate Reference Network (CRN) and Rick Artz, Program Chair

- Described the CRN, which is a new long-term (50-100 years) NOAA network with 25 stations being installed now and 250 stations planned for the complete network.
- Described key elements of the CRN: (1) yearly site visits to check and maintain equipment, (2) licensing agreements with operators, most of whom are not compensated for CRN work, (3) Geonor precipitation gage, equipped with a Campbell (CR23X) data logger with 1200-baud satellite uplink, (4) all gages with wind shields, (5) avoid forested areas, (6) smart software to help ensure data completeness, (6) ready supply of spare parts, (7) data available on-line, and (8) partner with NADP, if common ground can be found.
- Discussed the following topics & concerns: (1) shielded gages may result in step-function changes in NADP's precipitation record; (2) questioned decision to avoid forested areas (Baker said that these were avoided because of temperature measurement inhomogeneities in forests); and (3) discussed getting field trials of Geonor gages at 2 or 3 NADP sites.
- CRN has an annual budget of several million dollars; CRN's Web page address: <http://lwf.ncdc.noaa.gov/oa/climate/research/crn/crnmain.html>

Mark Nilles, US Geological Survey

- Presented summary of Ott-Pluvio precipitation gage tests: (1) John Gordon is

preparing a report on a 5-gage comparison in which the Ott-Pluvio gage excelled, the Geonor and ETI NOAH-II gages were acceptable, and the Belfort vibrating wire gage was deemed unacceptable.

- Reported that field trials of the Ott-Pluvio gage will be completed by the Spring 2002 NOS meeting and a USGS report will be submitted for Director approval by October 2002.

Van Bowersox, Program Coordinator, Illinois State Water Survey

- Described a new gage being designed and built by ETI, a Fort Collins, CO, company: (1) design uses the Belfort gage case, replacing the mechanical weighing mechanism with a battery-powered load cell, (2) estimated purchase price not to exceed \$4000, and (3) Budget Advisory Committee approved the purchase of two of these gages (model: NOAH-III) for testing.

Funding Equipment Modernization (open discussion)

- The Executive Committee is committed to replacing the Belfort gage and Aerochem Metrics collector with a new electronic gage and wet-deposition collector. A two-step process for replacing existing equipment was suggested: (1) select acceptable replacement equipment based on scientifically sound tests and (2) develop an infrastructure to handle a new data acquisition system and to repair and replace new equipment. Tests will continue until acceptable replacements are selected. New sites could install approved new equipment, while existing sites could phase in replacement equipment as funds become available.

Reports —

NTN Advisor, Mark Nilles, USGS

- Outlook for FY02 field site and Program Office support is stable.
- USGS considering new sites at Moss Lake, NY, and Lake Tahoe Watershed.
- FY02 BLM support is level.

National Park Service/Fish & Wildlife Service, Kristi Morris

- Stable FY02 funding for FWS with possibly 1 new MDN and 1 new NTN site.
- Stable FY02 funding for NPS with possibly 5 new MDN and 8-10 new NTN sites.

USDA-Forest Service, Richard Cline

- Stable FY02 funding for 20 sites is anticipated.

National Oceanic and Atmospheric Administration, Rick Artz

- NTN support is stable and AIRMoN will remain at 10 sites, including Smith Island and the new Delaware site, Trap Pond State Park.

Environmental Protection Agency, Rona Birnbaum

- Anticipates all three tribal sites will be in operation in the near future.
- Five NERRS sites will be installed and become operational in the near future.

Program Vice Chair, Kathy Tonnessen

- Reported that NADP will lead two platform and two poster sessions at the upcoming International N2001 Conference in Potomac, MD. Abstracts for presentations and posters are available in the proceedings of this meeting.

Program Chair, Rick Artz

- Appointed the nominating committee (John Sherwell, Kathy Tonnessen, Lee Sommers) for selection of the 2001/02 NADP Secretary.

Thursday, August 30, 2001

Program Chair, Richard Artz, called the Executive Committee meeting to order. Minutes of the 17-20 October 2000 Executive Committee Meeting in Saratoga Springs, NY, were approved with minor corrections.

Special Presentation on Measuring Isotopes in NADP Samples —

Isotopic ($\delta^{18}O$ & δD) characteristics of weekly precipitation collected across the US using the NADP network: Establishment of the US Network for Isotopes in Precipitation (USNIP)

Jeff Welker, Guest, Colorado State University

- US Network for Isotopes in Precipitation is based on archive samples from 80 NTN sites.
- Proposed that NADP establish an isotope network that would be funded as part of long-term NADP support.
- Discussion: Rick Artz suggested that Welker submit a written proposal to have the USNIP become part of the NADP. He also suggested that the Program Office create a “new issues” area on the NADP home page, where there would be a link to the USNIP. Mark Nilles sees no organizational roadblock to such an application.

Reports (continued) —

National Program Leader, Dan Jones, CSREES

- Reported on a meeting between CSREES Executive staff and the NRSP-3, held on 15 March 2001. Attending the meeting were NADP Program Chair Rick Artz, Past Chair Jim Lynch, Lead Administrative Advisor Wayne Banwart, and Program Coordinator Van Bowersox, along with CSREES Deputy Administrators. Van presented a seminar describing the history, status, and new directions of National Research Support Project #3 (NADP). After the presentation, meetings were arranged with George Cooper, Deputy Administrator for Partnerships, Ralph Otto, Deputy Administrator for Natural Resources, and Jane Coulter, Deputy Administrator for Science and Education Resource Development.
- Reported that a program review must be completed prior to seeking NRSP-3 renewal. Dan met with George Cooper and Ted Wilson, Deputy Administrator for Plant and Animal Systems, to discuss the review and learned that general criteria for national program reviews will not be available in time to meet the deadline for an NRSP-3 review. He also learned that CSREES would not lead these reviews and that objectivity and independent thinking are important criteria for review team members. Review criteria can be based on previous reviews (e.g., 1998 review) or can be entirely new, if justified. A combination of old and new criteria may work best. The NRSP-3 review must be completed and the

- reviewers' report finalized before the Spring SAES Directors' meetings.
- Discussed having an on-site review conducted by a panel of 5 or 6 external reviewers. Ideally, the panel would meet in September or October at Program Office facilities at the University of Illinois.

Administrative Advisors

Wayne Banwart, Lead Administrative Advisor, North Central Region

- Reiterated support for an on-site program review completed before the Spring 2002 meetings.

Lee Sommers, Administrative Advisor, Western Region

- Reported that NRSP-3 needs to emphasize its interconnectedness with federal, state, and non-governmental programs and its many linkages with other networks and programs. Questions have been raised about the function, role, and longevity of existing national programs.
- Reported that this is his last NRSP-3 meeting as Western Administrative Advisor. With the realignment of responsibilities in the Western Region, other responsibilities are requiring his time and attention. Dr. Donald Snyder of Utah State University will replace him.
- Program Chair, Rick Artz, thanked Lee for serving as our Western Advisor and for his contributions to the NADP.

Program Office

Van Bowersox, NADP Coordinator, Illinois State Water Survey

- Reported on status of three NADP networks: NTN has 231 active sites, AIRMoN has 10 active sites, and MDN has 60 active sites.
- Meeting Support: (1) Kathy Douglas prepared and distributed the minutes of the October 2000 Executive Committee meeting in Saratoga Springs, NY; (2) Kathy worked with Rick Artz to coordinate submission of manuscripts from the Saratoga Springs Technical Committee symposium (Manuscripts are under review for publication in a special section of *Atmospheric Environment*.); (3) Kathy and Pam Bedient prepared the proceedings for this meeting, which included abstracts of papers to be presented in NADP sessions at the upcoming *N2001 - The Second International Nitrogen Conference*, scheduled for the Bolger Conference Center in Potomac, MD; (4) Rick Artz and Kathy Tonnessen will chair sessions on "Atmospheric Deposition of Nitrogen" and "Effects of Atmospheric Deposition of Nitrogen," respectively, at the *N2001 Conference*.
- Archival Samples: Karen Harlin has agreed to chair the ad-hoc committee that evaluates requests for NADP archival samples, pending Executive Committee approval; Karen would replace Van in this capacity.

Note: Approval was given for Karen Harlin to replace Van Bowersox as chair of the archive sample ad-hoc committee. This motion was carried when the entire Program Office report is accepted.

- Marketing: (1) Scott Dossett attended the Second Annual National Tribal Forum in New Orleans, LA, on 10-11 April, where he gave a presentation on the NTN and MDN; (2) Clyde Sweet and Eric Prestbo prepared a white paper recommending that NADP add a trace metals option to the existing MDN; (3) An informational brochure about the NADP/MDN, originally drafted by Tamara Saltman of the EPA with input from the Environmental Effects Subcommittee, is now available on-line and hard copies can be obtained from the Program Office; (4) Plans are to send an e-mail announcing publication of the NADP 2000

Annual Summary, as well as other new publications and new features on the NADP Internet site.

- Site Documentation: Information from the on-site systems and performance reviews conducted by ATS are being received and added to NADP files.
- Site Liaison: (1) Procedures for on-site sub-sampling were revised to accommodate lower volume limits for sample removal by site personnel who are engaged in on-site research; (2) ME00, the Caribou site, no longer performs field chemistry measurements, joining CO15, IL18, NM12, PA29 and NY98, which previously had discontinued these measurements; (3) Site moves were listed.
- Site Operator Training: On 1-3 May, 28 people completed the Field Operations Training Course at the Illinois State Water Survey.
- Network Equipment Depot (NED): In 2000/01, modest improvement was realized in the frequency of bulk and undefined samples, which decreased from 3.55% to 3.08% of the total number of samples.
- Equipment Modernization Initiative: (1) The Ott-Pluvio precipitation gage is being field-tested at the Bondville site operated by the Water Survey; (2) The Bondville site will serve as a field test site for Climate Reference Network equipment; (3) A Ft. Collins, CO, company (ETI Systems, Inc.) has developed a proposal for NADP consideration for a new precipitation measurement system that can control and monitor a wet deposition sampler; (4) Yankee Environmental Systems, Inc., is continuing to seek comment and information on specifications and features for its new wet deposition collector; (5) The Program Office purchased and is evaluating a new wet deposition collector sold by N-Con Systems, Inc., of Crawford, GA.
- Data Base/Web Page: (1) NADP's Internet site is being re-designed to offer a more attractive interface, improved navigation, and increased reliability of large downloads; (2) Back-trajectories for AIRMoN samples can now be displayed; (3) Preparation of 50-km topographic maps for sites is complete; (4) Global Positioning System measurements are being recorded for all NADP sites; (5) US census data on streets, roads, and trails are being summarized for posting on site maps; (6) Statistics on Internet site usage:
 - Of the 1,251,150 hits on the web page this year, 40% were education-related and 60% were of research-related.
 - NTN data to April 2001, AIRMoN data to February 2001 and MDN data through December 2000 are available on the internet site.
 - In January 2001, the Institute of Scientific Information (ISI) selected the NADP site for inclusion in the Current Web Contents, an on-line listing of scholarly, research-oriented web sites. Navigation and design, accuracy and currency of content, scope and quality of writing are among the criteria ISI applies in selecting sites.
- Quality Assurance:(1) A job search is open for an NADP Quality Assurance Manager; (2) Greg Dzursin is working 40% time to handle ATS site systems and performance surveys, oversee conversion of the hand-drawn 30-meter site sketches into digital drawings, and oversee a project to obtain GPS readings of all NADP sites; (3) ATS has delivered 164 NTN site systems and performance reviews in 2000/2001; (4) Greg Dzursin and Scott Dossett sent colored site sketches and accompanying data sheets to the 34 site operators and supervisors at NTN sites with 45-degree violations, and operators were asked to review the sketches for accuracy, mark changes and corrections, and comment on whether the 45-degree violations might be addressed in some way (although no corrective action was required, 9 sites took action to correct violations).
- MDN Analytical Laboratory (HAL) Contract: The contract for MDN laboratory services was re-competed and the current laboratory, Frontier Geosciences Inc., was selected.

Motion: Mark Nilles moved to accept the Program Office report. Jim Lynch seconded.

Motion carried.

A fire alarm sounded and the building was cleared.

CAL Report

Karen Harlin, CAL Director, Illinois State Water Survey

- CAL Internet Site: nadp.sws.uiuc.edu/cal, became active in February 2001
- Site Operations
 - 31st NTN site operators course held at the CAL, May 1-3, 2001.
 - 32nd NTN site operators course is scheduled for April 9-11, 2002.
 - NTN lid seal change was scheduled for June 5, 2001. To date, 200 out of 229 have been returned or 87%.
 - 2002 Calendar is in the registration packets and will be mailed in the October 2001 site mailing.
 - Site operator awards include 7 - 5 year awards, 20 - 10 year awards, 16 - 15 year awards and 3 - 20 year awards. The recipients are as follows:

5 Year Awards (paper certificate)

<u>Site</u>	<u>Name</u>	<u>Wet Start</u>	<u>Agency</u>
KS32 - Lake Scott State Park	Curtis Sauer	032784	USGS
NM12 - Capulin Volcano NM	Abbie Reaves	111584	EPA/NM ED-AQB
OK17 - Great Plains Apiary	Kathy McAlister	032983	NOAA-ARL
PA15 - Penn State	Robert Ziegler	060783	NOAA-ARL
PR20 - El Verde	John Bithorn	021285	USFS
TN11 - Great Smokey Mtn NP	Scott Berenyi	081280	NPS-ARD
WA24 - Palouse Cons Farm	Robert Barry	082085	USGS

10 Year Awards (5 x 7 plaque)

AL10 - Black Belt Substation	Peggy Seekers	083183	USGS
CO22 - Pawnee	Mark Lindquist	052279	NSF-LTER/CSU
CO91 - Wolf Creek Pass	Todd Pitcher	052692	USFS
CO96 - Molas Pass	Brian Parker	072986	USFS
IA08 - Big Springs Fish Hatchery	Robert Zach	081484	USGS
IN22 - SW Purdue Ag Center	Angie Thompson	092584	USGS/Purdue Univ
MS19 - Newton	Ron Gilstrap	111186	NOAA-ARL
MT13 - Give Out Morgan &	Linda Connor	091482	EPA/Ft Peck Tribes
MT96 - Poplar River		122199	EPA/Ft Peck Tribes
MT97 - Lost Trail Pass	Chuck Oppegard	092590	USFS
ND11 - Woodworth	Gayle Cook	112983	USGS
NY65 - Jasper	Peter Finlay	021980	USGS
NY98 - Whiterface Mountain	Douglas Wolfe	070384	USGS
OH49 - Caldwell	Mike Franko	092678	USGS
PA29 - Kane Exp Forest	Donald Dorn	071878	USFS
TX16 - Sonora	Robert Moen	062684	USGS
VA13 - Horton's Station	Stanley Long	072578	TVA

WI28 - Lake Dubay	Barry Benson	062982	Wisconsin DNR
WI98 - Wildcat Mountain	Karen Teed	080189	Wisconsin DNR
WY06 - Pinedale	Sallie Otteman	012682	BLM
15 Year Awards (8 x 10 plaque)			
CA45 - Hopland	Charles Vaughn	100379	USGS
FL99 - Kennedy Space Center	Lee Maull	080283	Dynamac
IL11 - Bondville	Mike Snider	022779	SAES- U of Illinois
IN20 - Huntington Reservoir	Gary Zeissig	082283	USGS
MI99 - Chassell	David Toczydlowski	021583	NPS-ARD
MS30 - Coffeeville	Hilliard Griffin	071784	TVA
NE15 - Mead	Sheldon Sharp	072578	SAES - U of Nebraska
NE99 - North Platte Ag Exp Stn	Jim Goeke	092485	USGS
OH71 - Wooster	Cheryl Capek	092678	USGS
TX03 - Beeville	Domingo Martinez	020784	NOAA-ARL
UT08 - Murphy Ridge	Lee Bodine	032586	BP/AMOCO
UT98 - Green River	Nolan Johnson	042585	USGS
VT01 - Bennington	Dan Taylor	042881	USGS
WI09 - Popple River	Cathy McLain	123086	Wisconsin DNR
WV18 - Parsons	John Pearce	070578	USFS
WY98 - Gypsum Creek	Terry Pollard	122684	Exxon Mobile Oil Corp

20 Year Awards (Iucite trophy)

IL63 - Dixon Springs Ag Center	Claris Barger	013079	SAES - U of Illinois
MI09 - Douglas Lake	Robert Vande Kopple	070379	SAES-Michigan State
NJ99 - Washington Crossing	Kathy McCullough	080481	EPA

- **Laboratory Operations:** (1) NTN reviewed and validated 212,432 samples as of 8/24/01; (2) AIRMoN reviewed and validated 12,054 samples as of 8/24/01; (3) A new M.S. level chemist is in training for all instrumental procedures; (4) Automated transfer of lab comments, contamination codes, pH and conductivity measurements is in testing and, barring problems, will be implemented for AIRMoN in October 2001 and for NTN in January 2002; (5) A new IC autosampler will allow decreased sample volumes to be used; (6) New instrumentation is under review for major cations; (7) The CAL statement of work is being updated with review from the Program Office; (8) The CAL shipped NTN archival samples from 1994 and 1995 to several researchers.
- **Data Management Operations:** (1) NTN data through April 2001 was sent to the Program Office; (2) AIRMoN data through May 2001 was sent to the Program Office; (3) CAL reviewer comments have been added to the NTN database in response to auditors suggestions to eliminate data reviewer's notations on the FORFs; (4) The analysis date has been added to the NTN database for FIA, IC and AAS; (5) The AIRMoN database now contains hourly precipitation, beginning January 1, 2001.
- **QA/QC:** (1) 1999 CAL Quality Assurance Report has been published; (2) CAL Quality Assurance Plan was externally reviewed, comments were incorporated, and the Plan is in a second internal review; (3) CAL lab operations were reviewed, July 23-24, 2001, by Mark Peden, Jane Rothert, and Karen Harlin.

Motion: John Shimshock moved to accept the report. Kathy Tonnessen seconded.
Motion carried.

NADP Archive Samples

Karen Harlin, Assistant NADP Coordinator, Illinois State Water Survey

- Archival samples (NTN > 5 years old; AIRMoN > 2 years old):
 - Dr. Emi Ito of the University of Minnesota received 1995 NTN archival samples from 8 sites (IA08, LA12, MT07, NE15, NY52, NC03, WI25 and PR20).
 - Dan Driscoll of the USGS in Rapid City, SD, received NTN archival samples from ND11.
 - Jeff Welker of Colorado State University, received all remaining 1995 NTN archival samples.
- Active archival samples (NTN < 5 years old; AIRMoN < 2 years old)
 - Dr. Ed Harvey of the University of Nebraska-Lincoln received samples from NE15 for 1996-1998 (shipment pending).
 - Dr. Madhav Machavaram of the Lawrence Berkeley National Laboratory is scheduled to receive active archival samples from eight NTN sites (AR03, CA42, KS32, LA30, OK29, TX10, TX56, and UT99). Shipments will begin in September 2001.
 - Dr. Deborah Neher of the University of Toledo will receive composited samples by site and by month with volumes that exceed the 150 ml required for CAL analysis and archival purposes. The sites are IN20, MI26, MI52, and OH15.
- Archival sample requests for Executive Committee approval:
 - Dr. Ed Harvey of the University of Nebraska-Lincoln requests samples from NE15 through 2000 for compositing with previously received samples so that he can make monthly and seasonal tritium measurements.
 - Ty Coplen of the USGS requests NTN and AIRMoN samples collected at collocated sites (OH09, PA15) during 1997 and 1998. Coplen is testing whether $^{18}\text{O}/^2\text{H}$ in weekly samples is physically consistent with $^{18}\text{O}/^2\text{H}$ in daily samples.
 - Jeff Welker of Colorado State University requests NTN subsamples from WI36 for June-August 2001; OR02, OR10, and OR18 from June-September, 1996 and 1997, and for all of 2000 and July-August 2001. Welker is participating in a study involving Wisconsin and Oregon, where investigators are addressing carbon and water cycling in deciduous and evergreen forests. He wants to document the isotopic relationship between oxygen isotopes in precipitation and in the oxygen of CO_2 .
 - Interest has been expressed from the following but proposals have not been submitted: Simon Poulson or the University of Nevada-Reno, Brian Scott of Environment Canada, and Mark Lyford of the University of Wyoming.

Motion: Accept Harvey, Coplen, and Welker requests, made by Mark Nilles. Seconded by John Sherwell.

Discussion: Question about the cost of supplying subsamples, which is \$2 per bottle or a minimum of \$50. Karen was asked to prepare a report summarizing costs for preparing and mailing subsamples to ensure that the CAL is recovering the cost of this activity.

Motion carried.

Budget Advisory Committee

Mark Nilles, Budget Advisory Committee Co-chair

- Reported that the FY01 cooperative agreement between USDA-CSREES and the University of Illinois was fully funded by the federal agencies that support the agreement.

- Reviewed FY01 expenditures and the proposed FY02 budget.
 - Federal agencies expect no substantial changes in their FY02 commitments to support NADP.
 - No change in cost of CAL services in FY02.
 - Likely increase in CAL cost in FY03.
 - Special projects approved for FY02 include Phase II trials of the NOAH III raingage and N-Con sampler.

Network Operations Subcommittee

John Shimshock, Network Operations Subcommittee Chair

- Siting Criteria Violations:
 - Proposed forming an ad hoc committee to address current siting criteria violations at NADP sites and recommend how these should be addressed; report is due at Spring 2002 NOS meeting. Chair is Joel Frisch, members are Scott Dossett and Preston Lewis.
 - Proposed forming an ad hoc committee to review NADP siting criteria and report on progress at Spring 2002 NOS meeting. Chair is Gary Stensland, members are Rick Artz, Natalie Latysh, and John Shimshock.
 - 5-meter rule: siting criteria violations for objects within 5 meters of the wet bucket orifice will be given a 0.5 meter “grace” distance for the purpose of initiating administrative follow-up and corrective actions.
 - Collector orientation: the siting criterion that specifies that the collector be oriented with the wet bucket to the west will result in administrative follow-up and corrective actions when the wet bucket orientation is outside of the 225-315 degree azimuth range.
- Proposed acceptance of NTN site, WA98:
 - Recommend that WA98, near Portland, OR, be granted an exception to the criterion addressing “urban area proximity” and accepted into NTN.
- Proposed NTN sites in Virginia:
 - Recommend that the Program Office inform the Virginia Department of Natural Resources that any site considered for inclusion in NTN must meet local siting criteria. Proposed sites at Rock Bridge and NASA Langley could potentially meet these criteria, while the site at Occoquan would require relocation.
- Recommended acceptance of the newly revised NADP/ NTN Site Information Worksheet and Section 3 and Appendix A of the *Site Selection and Installation Manual*.
- Elected Natalie Latysh, USGS, as NOS secretary. NOS officers are Kristi Morris, Chair, Mark Nilles, Vice-chair, and Natalie Latysh, Secretary.
- Proposed forming an ad hoc committee to address ETI corporation questions about system integration and control software for the NOAH-III precipitation measurement system. Chair is Scott Dossett, members are Dennis Lamb, Rick Artz and Mark Nilles.
- Approved release of AIRMoN orthophosphate data on the NADP Internet site.
- Recommend that 30-meter site sketches be made available on-line.

Motion: Mark Nilles moved that the NOS report including all action items be approved. Jim Lynch seconded.

Discussion: There was discussion about NADP data from “urban” sites on the Internet. Data from all NADP sites meeting the completeness criteria are presented without any indication of the possibility of urban or other influences. It was suggested that urban sites be classified and designated on annual summary maps. This discussion did not lead to any amendments.

Motion carried.

New Business —

EPA's QA Program

Gary Lear, U.S. Environmental Protection Agency

- Described the history of the QA Steering Committee, established in the early 1980s to set QA policies and priorities and discontinued in 1996, because of perceived redundancy with the Executive Committee.
- Described the position of QA Manager, which was funded under a separate agreement between EPA and the Coordination Office from 1985-1995; the position was filled by Dave Bigelow, who compiled summaries of QA activities, conducted research, and reported to EPA and the QA Steering Committee.
- Described the renewed emphasis on quality assurance at EPA; monitoring activities must have up-to-date QA Plans.
- Proposed a new QA program for NADP in which EPA resources would be re-directed toward QA research and coordination; Scott Faller of EPA would coordinate this effort and would be responsible for preparation of updated QA Plans and annual summary reports.

Motion: Re-establish NADP QA Committee, which would report to the Executive Committee and establish QA policies and priorities. Members would include the EPA QA Coordinator, USGS representative, Program Office QA Manager, CAL QA Representative, HAL QA Representative. John Sherwell seconded.

Discussion: Questions were raised about the budgetary impacts.

Motion: Mark Nilles moved to table the motion. John Sherwell seconded.

Motion to Table Carried.

New Executive Committee Secretary

The nominating committee selected Gary Lear as the new NADP secretary.

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

Motion carried.

Technical Committee Meeting 2002

Locations for the 2002 Technical Committee meeting were discussed. Madison, WI, and Seattle, WA, were suggested. There were suggestions that this meeting emphasize mercury deposition. The Program Office will check on facilities and prices in these two cities and work with Rich Grant to select a location and dates for the meeting.

Reports (continued) —

HAL Report

Clyde Sweet, Associate Coordinator for Toxics. Illinois State Water Survey

- Total active MDN sites: 61. The Covello site, CA97, is temporarily closed and will be moved. Seven new sites are expected to begin operations by the end of 2001 and 10 other sites have been proposed.
- Reported on new HAL facilities, which include 700 sq ft of new space, two dedicated total and methyl mercury analyzers, a new sample receiving area, a dedicated bottle washing room and lab (expected to move in 11/2001).
- Reported on HAL quality assurance activities:
 - 2000 Annual HAL QA Report awaiting final system blanks; it will be available on the web site.
 - 2001 quarterly lab QA reports will continue to be sent with MDN preliminary quarterly data reports.

- 2001 HAL interlaboratory comparison studies for July - Dec 2001 to be complete in Feb 2002.
- Frontier Geosciences has been audited by 7 different agencies, including the NADP.
- Field comparisons have been conducted at ME98, WA18, and IL11.
- ATS Sites Systems and Performance reviews to be conducted on a 3-year cycle.
- Reported on MDN Operator Training: 16 site operators trained in 2000 and 17 trained through June 2001.
- MDN site moves: CA97 to move to Englenook, CA, and AB08 moved to SK12
- 2001 meetings attended:
 - West Palm Beach, FL, *Workshop on the Fate Transport and Transformation of Mercury in Aquatic and Terrestrial Environments*, May 8-9, 2001. Sponsored by the US EPA, attended by Clyde Sweet and Eric Prestbo.
 - Minamata, Japan, *Mercury as a Global Pollutant, 6th International Conference*, Eric Prestbo attended.
 - Montreal, Quebec, Canada, *Workshop on Atmospheric Mercury Science and Policy*, Sep 14-16, 2001, sponsored by the Council on Environmental Cooperation, International Joint Commission, Clyde Sweet attended.
 - NESCAUM meeting, Massachusetts, November 8-9, 2001. Attended by Clyde Sweet.

Motion: Jim Lynch moved to accept the report. John Sherwell seconded.

Discussion: There was a suggestion to break out the MDN publications in annual reports
Motion carried.

Environmental Effects Subcommittee

John Sherwell, Environmental Effects Subcommittee Chair, Maryland Department of Natural Resources

- Discussed the need to assess the impact of urban areas on regional atmospheric deposition. Three Virginia Acid Precipitation Network sites are being considered for inclusion in NTN to look at this question.
- Reported on a pilot program, initiated in July 2001, to measure total nitrogen in a subset of NTN samples. Mark Castro of the University of Maryland in Frostburg is principle investigator of this project.
- The Chesapeake Bay Program is preparing an RFP to develop a regression model of daily deposition estimates for the Chesapeake Bay watershed.

Motion: Kathy Tonnessen moved to accept the report, seconded by Gary Lear.

Motion carried.

Data Management and Analysis Subcommittee

Gary Lear, Data Management and Analysis Subcommittee Chair, US Environmental Protection Agency

- Minutes from the Spring 2001 meeting will be posted by Bob Larson within 30 days of this meeting.
- Subcommittee Officers for 2001/2002: Bob Larson, Chair, Tom Lavery, Vice Chair/Secretary.
- Recommended that methyl mercury data be transferred from the HAL to the Program Office on the same schedule as total Hg data; it was proposed that these data be transferred as Excel spreadsheet files, although the security of these transfers was questioned and the methods for storing and transferring Hg data were deferred to the Spring 2002 meeting.

- Reported on a passive ammonia sampling experiment that Gary Stensland described to the Subcommittee; gaseous ammonia deposition estimates could fill an important gap in total nitrogen deposition calculations.
- Reported on progress in providing on-line open data base connectivity (ODBC) access to NADP database tables. Bob Larson anticipates that ODBC access will be available in 2001 and will send an announcement when it is ready. Potential users should contact him to establish a user ID and password.
- Reported on progress toward an integrated coding system for the three NADP networks. MDN and AIRMoN codes are close to being integrated. The Program Office will present the resolved coding system for MDN and AIRMoN and convert all time data from local time to GMT before the Spring 2002 meeting.

Motion: John Sherwell moved to accept the report and Kathy Tonnessen seconded.
Motion carried.

New Business (continued) —

CASTNet Dry Deposition

Gary Lear, US Environmental Protection Agency

- Reported on EPA efforts to expand the CASTNet dry deposition network.
- Described a cooperative agreement between EPA and the Canadian Meteorological Service to work on total and dry deposition issues. Among the joint activities is an effort to improve the characterization of filter packs and improve the methods for combining all North American atmospheric deposition data, using the NATChem system developed by Environment Canada.
- Reported on the work of Peter Finklestein and Monte Fuentes to develop a regional deposition model using Models 3.
- Reported on a study in which EPA has funded the Institute for Ecosystem Studies to compare throughfall measurements with total deposition estimates from collocated NTN and CASTNet sites.

Trace Metals in NADP

Clyde Sweet, Associate Coordinator for Toxics

- Presented a white paper, "Measurement of Trace Metals in NADP, prepared by Clyde Sweet and Eric Prestbo, and asked whether NADP wants to officially include a trace metals option in its toxics program.
- Described current efforts occurring at selected Pennsylvania sites, where a separate trace metals sampling train is installed in the MDN collectors and samples are sent to Frontier Geosciences for analysis.
- Discussion followed to allow a link to be added to the web site to show what is out there but not necessarily endorsed by NADP or connected to NADP. Jim Lynch would be happy to share the Pennsylvania data, if the state agrees.

Joint Network Training

- Discussion about joint training classes and videos across the three networks.
- The Program Office was advised to coordinate training and other activities among the three networks to reduce any duplication of effort.

Motion: Rich Grant made a motion to adjourn the meeting, Kathy Tonnessen seconded.
Motion carried.

NADP Chair, Rick Artz, adjourned the meeting at 1:30 p.m. by presenting the traditional "mallet" to Kathy Tonnessen, the 2001/2002 NADP Technical Committee Chair.

**National Atmospheric Deposition Program
August 27-30, 2001 Technical Committee Meeting
Participant List**

Artz, Richard	NOAA - Air Resources Lab
Bachman, Sue	Illinois State Water Survey
Banwart, Wayne	University of Illinois
Beaubien, Mark	Yankee Environmental Systems, Inc.
Bergerhouse, Thomas	Illinois State Water Survey
Birnbaum, Rona	USEPA Clean Air Markets Division
Bowersox, Van	Illinois State Water Survey
Claybrooke, Roger	Illinois State Water Survey
Cline, Richard	USDA Forest Service
Cornelius, Wayne	NC Dept of Environment and Natural Resources
Demir, Brigita	Illinois State Water Survey
Dossett, Scotty	Illinois State Water Survey
Douglas, Kathy	Illinois State Water Survey
Dzurisin, Greg	Illinois State Water Survey
Faller, Scott	USEPA
Fringer, Joyce	Illinois State Water Survey
Frisch, Joel	U.S. Geological Survey
Gordon, John	U.S. Geological Survey
Grant, Richard	Purdue University
Harlin, Karen	Illinois State Water Survey
Islam, Tahmina	North Carolina DENR--Air Quality--Air Monitoring
Johnson, Andrew	Maine Department of Environmental Protection
Jones, Daniel	USDA/CSREES
Larson, Robert	Illinois State Water Survey
Latysh, Natalie	U.S. Geological Survey
Lear, Gary	USEPA Clean Air Markets Division
Lewis, Preston	New York State Dept of Environmental Conservation
Lynch, James	Penn State University
Lynch, Malcolm	C. C. Lynch & Associates, Inc.
Malone, Patrick	New York State Dept of Environmental Conservation
Mauil, Lee	Dynamac Corp.
McCormick, Kathy	Illinois State Water Survey
Mesarch, Mark	University of Nebraska - Lincoln
Milton, Sarah	Illinois State Water Survey
Morris, Kristi	National Parl Service -- AIR
Nilles, Mark	U.S. Geological Survey
Peden, Mark	Illinois State Water Survey
Pribble, Jeff	Illinois State Water Survey
Rothert, Jane	Illinois State Water Survey
Sherwell, John	Maryland Department of Natural Resources
Shimshock, John	Advanced Technology Systems, Inc
Smith, Luther	ManTech Environmental Technology
Sommers, Lee	Colorado State University, Agricultural Experiment Station
Stensland, Gary	Illinois State Water Survey
Sweet, Clyde	Illinois State Water Survey
Tonnessen, Kathy	National Park Service/RM-CESU
Wade, Terry	Texas A&M University
Welker, Jeff	Colorado State University, Natural Resource Ecology Lab
Wolfe, Rosemary	USEPA Clean Air Markets Division