# The National Atmospheric Deposition Program (NRSP-3) Technical Committee Meeting

October 16 - 19, 1995, Toronto, Ontario, Canada

#### Minutes

Tuesday, October 17, 1995

# Opening, Introductions and Welcome —

The opening session of the 1995 NADP (NRSP-3) Technical Meeting was convened at 8:00 am. on Tuesday, October 17, in Toronto, Ontario, by Jim Lynch, Chair. Meeting attendees were asked to introduce themselves (see attached list).

Keith Pucket, Acting Director, Air Quality Branch, Environment Canada, welcomed participants to Canada and expressed appreciation for this sign of partnership. He commented on the importance of monitoring for the environmental agenda and talked of the budget cuts Canada is experiencing and the corresponding loss of people and approaches to monitoring. Programs are being evaluated to eliminate duplication. Both research and monitoring are on the table, and the outcome of these discussion will have a significant impact. Monitoring faces a tremendous challenge, and dollars must be used wisely to get maximum information. This can be done by by creating partnershps. The community of NADP is a good example. The quality of work being done should also be maintained. Programs need to be sensitive to the information of the day, and to look for ways to better market the information they have.

Rich Grant, Vice chair, presented an overview of the technical meeting. Rich hopes this meeting will foster exchange of information between countries.

Don McKay, the Toronto meeting host, described the planned trip to the Center for Atmospheric Research. A number of programs are represented at the site, and small-group tours are planned for each study area.

# Site Operator Recognition —

A number of years ago, NADP established a policy of formal acknowledgment for site operators who have served the network continuously for five years or more and who have attended the CAL operator training during that tine. Recognition was paid to the following operators for their years of service, and to the site supervisors.

FIFTEEN-YEAR PLAQUE				
CAL CODE	SITE NAME	SITE OPERATOR	SITE SUPERVISOR	
FL03	Bradford Forest	Larry Korhnak	Hans Riekerk	
IN34	Indiana Dunes National Park	Lou Brenan	Lou Brenan	
ME02	Bridgton	Peter Lowell	Leighton Carver	
ME09	Greenville Station	Llew Wortman	Ivan Fernandez	
OR10	Silver Lake Ranger Station	John Moreau	Al Levno	
TEN-YEAR PLAQUE				
CAL CODE	SITE NAME	SITE OPERATOR	SITE SUPERVISOR	
AL99	Sand Mtn Ag Experiment Station	James Hugh Burns	William Parkhurst	
IA23	McNay Memorial Research Center	Jim Secor	Debra Sneck-Fahrer	
ID15	Smith's Ferry	Mary Samuelson	Victor Kollock	
IN22	Southwest Purdue Ag Center	Melborn K. Lang	Richard Grant	
MD03	White Rock Substation	Robert Dalton	Edwin Much	
0H71	Wooster	Cheryl Capek	Robert Romig	
TX56	LBJ National Grasslands	Clyde Schoultz	Stanley Baldys	
WI25	Suring	James Trochta	Bruce Rodger	

FIVE-YEAR CERTIFICATE				
CAL CODE	SITE NAME	SITE OPERATOR	SITE SUPERVISOR	
CA42	Tanbark Flat	David Larson	Paul Miller	
CA88	Davis	Mike Mata	Make Mata	
CO21	Manitou	Ross Watkins	Linda Joyce	
KS32	Lake Scott State Park	Barbara Dague	Mike Carlson	
MT05	Glacier NP - Fire Weather Station	Lindy Kay	Bill Michels	
ND07	Theodore Roosevelt National Park	Mark Motsko	Roger Andrascik	
NM01	Gila Cliff Dwellings Nat'l Monument	Daniel Galindo	Erik Aaboe	
NV00	Red Rock Canyon	Donn Seibert	Donn Siebert	
OK00	Salt Plains National Wildlife Refuge	Harold Beierman	Dale Boyle	
SD08	Cottonwood	Ron Haigh	Richard Artz	
TN98	Wilburn's Chapel	O.E. Morris	William Parkhurst	
UT99	Bryce Canyon National Park	John Morlock	Roger Parsons	

A round of applause was given to all recipients.

# Reports — Administrative Advisors — AES Administrative Advisor —

Chuck Laughlin, Administrative Advisor from the Western Region, expressed appreciation to Jim Lynch, Rich Grant, and Don McKay for the program which is planned. He noted that the same challenges which were discussed by Keith Pucket are facing the U.S. He also commented that NADP hasn't been letting people know how important the data being collected is, and suggested not just talking to each other, but identifying partners, consumers, and constituents. He suggested looking for linkages such as the health community. He stressed that NADP should go for renewal, and emphasized the need for collective thinking and looking for appropriate kinds of objectives to move forward. He challenged the group to step out of their comfort zones. He stressed that the Administrative Advisors will do everything they can to move the program into the future. He also pointed out the commitment of Jack Barnes and his efforts to this program, and noted that because of the efforts of Paul Kapinos and Jack Barnes, there are people who listen and are concerned about the future of the program.

# CSREES Administrative Advisor —

Jack Barnes commented on the challenges and uncertainties which are facing NADP. The program is already in the fourth year of the current cooperative agreement and needs to reach out to people who will make a difference for the program. We must also begin to think about writing the renewal proposal, and must tell why it is important, making points of why an administrator should support us, and offer to answer questions from our data base. Jack emphasized again the need to think about the future, beginning with the core of the program which is the monitoring network. The key thing is to start preparing the proposal for the next five-year period now.

#### USGS Administrative Advisor —

Paul Kapinos commented that the budget picture is less gloomy than reported previously. USGS had been on a hit list, but they did convince Congress of the contributions they make. Both the Senate and the House allowed them to stay at a level budget. About \$3.5 million is spent to fund this program by all involved parties. USGS provides about 60% of that cost, and they hope to continue for 1996. 1997 is still uncertain.

#### Budget Advisory Committee —

Paul Kapinos reported that there was a Budget Advisory Committee meeting on September 21st. The Coordination Office and the CAL were asked to present level budgets for 1996, as costs can't be raised without the risk of losing sites. Consequently, there will be some change in sample analysis after January 2. The CAL will discontinue analyzing the WA, DA and T samples. The Executive Committee has approved this change to maintain sample costs. There is no firm budget from any agency yet.

#### Coordination Office —

Richard Flagler, new NADP Program Coordinator, introduced himself and reported on several items of interest.

- · Addition of two people to the Coordination Office —Cathy Griffin and Linda Boren-Burrous.
- The Coordination Office is now settled into their new location off campus, and business is going on as usual.
- Funding looks decent at this point. The Coordination Office is scheduled for a 3.5% increase from the Committee of Nine, and level from other agencies in the program.
- The World Wide Web page to market the program, tell people about site locations, and provide network data is
  nearing completion. Viewers can look at specific sites, access the QA information, access site photos, and be
  linked to other program cooperators.
- Network Status There are currently 192 U.S. sites, 1 Canadian site, 7 AIRMoN sites, 4 intercomparison sites, and 15 mercury sites. One new site has been added, KY99 Mulberry Flat, supported by TVA. No sites have closed over the past year. Funding for three sites which were in jeopardy has been resolved through USGS.
- Data requests are back on track. They appeared down last year, but this was due mostly to lag time.
- The Coordination Office is revising the annual data summary report and developing a new format, addressing a broader audience. The new report will be a smaller publication with full color maps and a program description. Data will still be available, but only on request.
- AIRMoN data is now available through the Coordination Office. The herbicide data has been completed and published by USGS and is also available through the Coordination Office.
- The mercury network should go forward, as it was unanimously recommended by the Executive Committee. The
  Coordination Office will take over responsibility for the Mercury Deposition Network on January 1, if it is
  approved by the Technical Committee.
- The Trends report is now available and copies will be mailed in the near future. The Shoot-out paper is also completed and reprints will be available from the Coordination Office.
- · Coordination Office Achievements
  - · Development of Web page
  - Provided GIS capabilities
  - Put AIRMoN data on line
  - Trends report completed
  - · Improved computer capabilities
  - · Development of framework of mercury network
  - Preservation of all sites despite current funding situation
- Priorities —

Coordinator —

- New annual data summary
- Continue marketing NADP, locally, iationally and internationally
- · Continue team building within the Coordination Office

## Quality Assurance —

- · New QA proposal for funding
- · Hire new QA Manager
- Revise QA plan for NADP and include AIRMoN and mercury.

#### Data Management —

- Develop SOPs
- Upgrade Ingres
- · Continue refining NADP Home Page

#### The CAL —

Kenni James reported on the following items.

- pH electrode update Approximately 80 Broadly-James electrodes were distributed in the first 9 months of this year. It has become a non-issue.
- AIRMoN The CAL has analyzed 3,377 AIRMoN samples and have passed data through mid June to the Coordination Office.
- Eastern European visit— Four eastern Europeans will visit the CAL in November for AIRMoN training from Jane Rothert. Emphasis will be on making accurate ion chromatographic measurements of anions and cations in precipitation.
- QA reports The 1993 report was published in June, and the 1994 report is ready for review.
- Interlaboratory comparison The CAL participates in three or four interlaboratory comparisons during the year.
   In the most recent intercomparison, the CAL was first out of 51 participating laboratories. Participating labs include LRTAP, EMEP, WMO.
- Training course A site operator training course was held June 13-15 with 24 people from 22 sites.
- Foam pad change 1994-95 pads were changed June 27, 1995.
- Communication with sites The CAL continues to expand use of e-mail and fax communication with site operators to improve speed of communication, troubleshoot raingage problems and resolve data errors.
- Archived samples A scientist from the University of Arizona requested and was provided with archived samples from NVO5 and AZO3. The Network Operations Subcommittee will develop an archived sample protocol.
- Coordination Office audit Mark Peden, the CAL Laboratory Manager, was part of the team which performed an audit of the Coordination Office in May 1995.

#### Quality Assurance Steering Committee —

John Robertson, Chair, reported. The Steering Committee has met twice since the last annual meeting to consider reports from the QA members. They also discussed the following.

- Quality Assurance Manager A plan is in place to move forward with a renewal proposal for a new QA Manager. (Note: Dave Bigelow will relinquish all responsibility as NADP Quality Assurance Manager on March 1, 1996.)
- Site Visitation Program and how it can be continued This program is currently unfunded, and this will be addressed with EPA to see if they can be convinced to continue the program.
- Audit of the Coordination Office An audit team, headed by Mary Ann Allan, and including Paul Kapinos, Warren Knapp, Jim L.ynch, Mark Peden, and John Robertson, visited the Coordination Office in May to conduct a two-day audit. Purpose of the audit was to provide the Coordination Office with a critique of

operations. A response has been received from the Coordination Office, and there are no points of contention.

Revision of QA Plan —-There are plans to revise the Quality Assurance Plan over the next year. It will now
include both AIRMoN and mercury. Gary Lear, Molly Welker and John Robertson will work on a new plan
for mercury over the next several months

# Subcommittee Reports — Data Management and Analysis Subcommittee —

Mary Ann Allan, Vice Chair, reported that Gary Stensland was unable to attend the fall meeting. The subcommittee has a full agenda. They will meet jointly with the Network Operations Subcommittee for reports and common topics, then go to an individual meeting where discussions will include

- · Trace and two-week sampling intervals
- Data coming from the AIRMoN and mercury networks
- · PC data products from the Coordination Office
- · Bias correction
- · The Coordination Office audit
- · Organics in NADP.

#### Network Operations Subcommittee —

Mark Nilles, Chair, reported that in addition to the standard topics, the subcommittee would be discussing the following.

- Bucket/Bottle The subcommittee has spent 2½ years talking about this issue, but the science involved is interesting.
- Dropping low volume samples
- Motor box redesign Presently sole-sourced with Aerochem Metrics, but now working with a possible second supplier.
- Site Visitation Program Need for funding.
- Check solution which site operators use for field measurement accuracy. Currently 4.9.

#### Environmental Effects Subcommittee —

Dan Orr commented that this committee is the heart and driving force of the program. NADP is facing challenges the next couple of years. The subcommittee will discuss possible new initiatives for organics, and also the issue of trying to address the need for a deposition standard.

# AIRMoN Subcommittee —

Jane Rothert announced that the subcommittee will be discussing:

- · Electronic Field Observer Forms
- A new raingage that will hopefully give electronic information
- Data reported (data through mid-June, 1995, at CSU)
- Screening techniques; screening codes

#### Mercury Advocates —

Steve Vermette reported that discussion regarding mercury started early in NADP, then increased in 1990. Now the Executive Committee has endorsed line Mercury Deposition Network for approval as an official NADP subnetwork by the Technical Committee. An RFP to select an analytical laboratory is currently out. Steve also noted that the Wednesday morning technical session has a number of presentations on mercury.

## Nominating Committee —

A nominating committee of Mary Ann Allan, Jack Barnes, and Paul Kapinos was named to select a candidate for Technical Committee Secretary for 1995-96.

The opening session was adjourned for subcommittee meetings.

#### Technical Session A: CAPMoN and NADP: Merging the Data Sets for Joint Analysis —

A general session was convened at 2:00 p.m. Dan Orr, Moderator for Technical Session A, introduced the following oral presentations.

Status and Results of Canadian Acid Precipitation Monitoring — C. Ro, Atmospheric Environment Service

NADP/CAPMoN Intercompanson — R. Vet, Atmospheric Environment Service

Fourteen-year (1930-1993) Long-Temi Trends of Acid Deposition in Eastern North America — D. McKay, Atmospheric Environment Service

NADP and CAPMON Trends: Precipitation Chemistry and CA Codes — L. Smith, ManTech Environmental Technology

NADP Trends with Bucket-Bottle Corrections — J. Lynch, Pennsylvania State University

<u>Utility Acidic Precipitation Study Program and Other Related EPRI Studies: Value and Availability</u> — M. A. Allan, Electric Power Research Institute

<u>Introduction of NADP/NTN World Wide Web Home Page</u> — R. Flagler and R. Gilpin, NADP/NTN Coordination Office, Colorado State University

# Poster Presentations —

Following the technical presentations, posters presentations to be viewed at a reception hosted by Atmospheric Environment Service, Environment Canada, were introduced. Posters presented were:

Comparability of NADP/NTN Wet-Deposition Samples Collected at One and Two Week Intervals -- J. Gordon, U.S. Geological Survey

How to Relate the Data From the Bucket and Bottle Sampling Protocols -V. Bowersox, Illinois State Water Survey

Deposition Conditions in New Brunswick and the Surrounding Areas — D. Albin, New Brunswick Environment Service

Snow:An American and Canadian Comparison — S. Dossett, Illinois State Water Survey

What if the NADP/NTN Had Never Analyzed Low-Volume Samples — M. Nilles, U.S. Geological Survey

Acid Rain Studies in East Central Florida from the Late 1970's to the Present — L. Maull, Dynamac Corporation, NASA

Analysis of Drv Deposition Monitoring Data in Minnesota and Surrounding Areas — G. Rohweder, Minnesota Pollution Control Agency

Dissolved Organic Nitrogen in Precipitation: Collection, Analysis, and Atmospheric Flux — J. Scudlark, University of Delaware

Shoreline versus Mid-lake Deposition Loadings to Lake Erie — S. Vermette, Buffalo State College

Sulfate Fluxes in Lakes and Catchments: interactions Between Reduced Atmospheric Deposition, Reduced

Runoff, and Wetland — P. Dillon, Ontario Ministry of the Environment

Impacts of Reduced Network Density on NH<sub>4</sub>, NO<sub>3</sub> and SO<sub>1</sub> Depositions During Dry. Wet, and "Normal" Years— Dnejana, R. Grant, Purdue University

 $\underline{\mathsf{NADP/NTN}\ \mathsf{World}\ \mathsf{Wide}\ \mathsf{Web}\ \mathsf{Home}\ \mathsf{Page}\ \mathsf{Demonstration}} - \mathsf{R.}\ \mathsf{Gilpin}, \mathsf{NADP/NTN}\ \mathsf{Coordination}\ \mathsf{Office}, \mathsf{Colorado}\ \mathsf{State}\ \mathsf{University}$ 

Wednesday, October 18, 1995

Technical Session B: Trans-boundary Transport and Deposition —

The second technical session convened at 8:00 a.m., and the following oral presentations were given.

A Comparison of the MAP3S-AIRMoN Precipitation Chemistry Record to Colocated or Nearby NADP Sites. Also Can We Measure Organic Nitrogen in Precipitation Using the AIRMoN Network? — T. Butler, Cornell University

NADP's Mercury Deposition Network — S. Vermette, Buffalo State College

Air/Surface Exchange o: Mercury Vapor in Forests: Importance of Dry Deposition and Re-emission in the Overall Biogeochemical Cycle of Mercury — S. Lindberg, Oak Ridge National Laboratory

Distribution and Origin of Methylated Mercury Species in the Pacific Northwest Atmosphere -- N. Bloom, Frontier Geosciences

<u>Dry Deposition of Inorganics in Minnesota</u> — G. Pratt, Minnesota Pollution Control Agency

Update of NESCAUM Aerosol Monitoring in the Northeastern U.S. — R. Poirot, Vermont Air Pollution Control Board

Evaluation of ADOM Seasonal Performance with Surface Network Data — M. Moran, Atmospheric Environment Service

Manganese Transport and Deposition: Pathways in the Forest Ecosystem — P. Schuepp, McGill University

Field Trip-

The morning session adjourned for a field top to the Center for Atmospheric Research Experiments (C.A.R.E.), hosted by Don Mckay, Atmospheric Environment Service. Thursday, October 19, 1995

Technical Session C: Lake and Watershed Effects —

The final technical session was convened at 8:00 a.m. with Sandy Verry as Moderator. Sandy introduced the following papers.

Atmospheric Contributions to Whole Lake contaminant Dynamics: From the Great Lakes to the Arctic — M. Diamond, University of Toronto

Persistent Toxic Organ cs in Precipitation Over the Great Lakes — C. Sweet, Illinois State Water Survey

Response of Stream Chemistry at Bear Brook Watershed, Maine, to Artificial Acidification — S. Norton, University of Maine

Atmospheric Deposition and Watershed Processing of Mercury in the Lake Champlain Basin — T. Scherbatskoy, University of Vermont

 $\underline{\text{Chesapeake Bay Nitrogen Reductions Due to the Clean Air Act}} - \text{L. Linker, U.S.E.P.A.}$ 

RDMQ: An Environmental Measurements Data Management and Quality Control System — W. Sukloff, Environment Canada NAPAP: Future Needs — M. Uhart, National Acid Precipitation Assessment Program

Plans and Activities to Develop a Canadian Strategy for Acidifying Emissions — G. Fenech, Environment Canada

Business Session —

The final session of :he 1995 NADP Technical Meeting was convened at 1:30 p.m. by Jm Lynch. He announced that the agenda for this business meeting would be:

- MDN Approval
- Subcommittee Reports
- Proposal to continue NRSP-3
- · Election of Officers
- 1996 Meeting

# Mercury Deposition Network (MDN) Approval —

The NADP Executive Committee has made a recommendation that the Technical Committee accept the mercury deposition network as a subnetwork of NADP.

**Motion**: That the Technical Committee formally accept the MDN as a subnetwork within NADP was made, seconded and carried.

# Subcommittee Reports — Environmental Effect —

Dan Orr reported on subcommittee discussions.

- Future Assessment.; (1996 2000) An integrated ecosystem "risk assessment' approach is advocated.
  - Assessment efforts should concentrate on ecoregions or vegetation zones
  - Improve knowledge of ranges between deposition effects
  - CM reductions effectiveness of emissions trading
- Need to determine value of NADP deposition data in environmental management issues.
  - Survey clients :o identify programmatic issues and data needs and possible applications
    - Creation of two-level brochures science and lay
    - Highlight an example of NADP data use on the Home Page
- Whether or not NADP should adopt a position on an acid deposition standard
  - NADP's role must be to provide information and maintain neutrality.
- Toxic organics deposition, as suggested by Clyde Sweet Uncertain as to whether the proposed list might meet agency needs
  - The subcommittee suggests that reference be made to the study by Julian Chazin and agencies be polled about their needs
  - · Also recommend that Clyde Sweet attempt to find other advocates
- Mercury
  - · Gather site information history to assist deposition information, particularly local sources
  - Encourage further work on the mobilization of mercury
  - Officers for 1 995-96 —

Chair - Dan Orr Vice Chair - Vacant

**Motion:** That the report be accepted was made, seconded and carried.

There was general discussion regarding the time involved with putting together any type of informational brochure.

## Data Management Subcommittee —

Mary Ann Allan reported and noted that they were primarily information items. At the joint meeting of Network Operations and Data Management, they discussed:

- Dropping WA, DA and T samples
- · Two week sampling

The Network Operations Subcommittee report will cover these items.

Data Management also discussed:

- · Bias correction
- · Coordination Office audit
- AIRMoN and MDN data and where it stands
- What about organics. Felt more should be done and that there should be more investigation to find out who else is out there.
- Officers for 1995-96 —

Chair — Mary Ann Allan

Vice Chair — Luther Smith

Secretary— Mark Wotawa (Note:Mark has subsequently accepted position in Arizona and resigned as subcommittee secretary.)

Motion: That the report be accepted was made seconded and carried.

#### Network Operations Subcommittee —

Mark Nilles reported on the following items.

• A joint session with Data Management considered the impact of dropping low volume sample analysis. They believe WA and DA analysis must be retained in some form even though the Executive Committee voted in June to drop these analyses as a budget consideration. There is a slight systematic bias introduced by that change. The subcommittees are not looking at any other influences, only the impact on the data base. The Executive Committee has not agreed to recant their decision, but an *ad hoc* committee composed of Richard Flagler, Van Bowersox, Paul Kapinos and Mark Nilles will revisit the question and make a decision prior to January 1.

The Network Operations Subcommittee agenda contained 17 or 18 items, most of which were bookkeeping, final status or summary reports. Agenda items also included

- New contractor for the raingage refurbishment program. This is the same contractor that was in place during previous discussions by NADP/NTN.
- Manuals— Print 3-hole punched copies of the unrevised site operations manual and distribute on an annual basis until the revised manual is completed.
- Officers for 1995-98 –
   Chair Kenni James
   Vice Chair —. John Gordon
   Secretary Sandy Pletschet
- Archived samples policy of subsampling samples in the field prior to being shipped to the lab. A policy is now in place that allows the Coordination Office to approve such subsampling. The issue is whether this policy should be published. A draft letter informing all sites and querying them regarding any subsampling they are doing will be brought to the spring meeting. This letter will also be reviewed by Paul Kapinos, Richard Flagler and the CAL prior to any distribution.

Motion: To accept the report was made, seconded and carried.

# AIRMoN Subcommittee —

Jane Rothert noted that the subcommittee had a discussion meeting only. They discussed:

- Electronic Field Operation Forms
- Screening codes
- "Q" rating codes. Comparison of MAP3S data
- Added "0" to indicate data but no stipulation being made
- "E" for unique data, i.e. long time before analysis; sequestered
- Added a lab code to the data base indicating AIRMoN analyzed by separate labs.
- · Data dissemination by the World Wide Web.
  - By site.
  - By all sites.

#### Mercury Advocates —

Steve Vermette expressed appreciation to the *ad hoc* committee members. Mercury Deposition Network affairs will be looked after by the existing subcommittee structure. Molly Welker will be their contact. However, they will retain the *ad hoc* committee for mercury-specific issues. The advocates held an evening meeting and discussed current issues and the change to official NADP status.

- Sandy Verry will be sending a letter to existing and proposed sites informing them of the action taken at the Technical Meeting, that an RFP is out, and a formal letter of invitation will be out in December.
- Site visitations will be started as soon as possible.
- Molly Welker will participate in the Interim meetings.
- A Mercury Deposition Network Web page will be developed.

#### Proposal for Continuation of NRSP-3 —

In 1977, NADP was approved as State Agricultural Experiment Station Project NC-141. In 1982, it was renewed for a second five-year period as IR-7, renewed again in 1987, and in 1992, it became NRSP-3. Now the process of putting together a renewal proposal for the next five-year period must begin.

Bill Brown, Administrative Advisor for the Southern Region, wrote two suggested time tracks for preparation and approval of the next five-year NRSP-3 proposal by the Committee of Nine. The Executive Committee opted for the track shown below.

- January February 1996 Appoint writing committee consisting of Jim Lynch, Rich Grant, and Richard Flagler.
- May 1996 Draft objectives for review and comment by Executive Committee.
- Summer 1996 Writing of draft proposal.
- October 1996 Draft Proposal for review and comments to Technical Committee.
- November and December 1996 Proposal finalized.
- January, February, March, April 1997 Distributed and presented to regional AES meetings for approval.
- May 1997 Committee of Nine approval

All suggestions and comments should be sent to Jini Lynch. Jack Barnes and Paul Kapinos should also be kept informed of progress.

The implications of the proposal not being approved were discussed. This would not necessarily mean the death of NADP. The project could possibly revert to a regional project. Subnetwork objectives will be a component of the renewal proposal. This is an opportunity to recreate NADP into a broader framework than it presently is.

#### Review of NRSP-3 —

Jack Barnes commented that he plans not to pursue a formal review for the time being . When the proposal is developed, the need for a future assessment and the framework for accomplishing such a review will be addressed.

1996 Meeting —

The theme for the meeting will be "New Directions — The Role of Atmospheric Chemistry in Environmental Issues." Possible topics will include:

- 1. Aquatics
- 2. Terrestrial
- 3. Natural systems
- 4. Federal land management agencies; ecosystem management
- 5. Regulatory categories; emissions trading
- 6. Human health

Suggested locations were Seattle, Portland, Charleston and Williamsburg. (Note: meeting is scheduled for the week of October 21st in Williamsburg.)

#### Election of Officers —

Paul Kapinos reported for the nominating committee. They recommended Stephen Vermette for the position of Secretary of the NADP Technical Committee. In keeping with established policy, Steve would then rotate into the Chair. There were no nominations from the floor and Steve Vermette was unanimously elected. 1995-96 Technical Committee Officers are: (complete list attached)

Chair - Rich Grant Vice Chair - Stan Coloff Secretary - Steve Vermette

#### Closing —

Jim Lynch passed the gavel to incoming chair, Rich Grant, and the 1995 NADP Technical Meeting was adjourned.

## Participant List

Name Affiliation

Dave Albin Environment New Brunswick

Mary Ann Allan Electric Power Research Institute

Richard Artz NOAA Air Resources Laboratory

Linda Bandhauer NADP/NTN Coordination Office

John Barnes USDA, CSREES, PAPPP

Dave Bigelow NADP/NTN Coordination Office

Nicolas Bloom Frontier Geosciences Inc.

Van Bowersox Illinois State Water Survey

Bill Brown Louisiana Agricultural Experiment Station

Tom Butler Cornell University

Richard Cline USDA Forest Service

Stan Coloff USGS - National Biological Service

Dagmar Cronn University of Maine

Claude Davis Bovar-Concord Environmental

Miriam Diamond University of Toronto

Peter Dillon Ontario Ministry of the Environment

Scott Dossett Illinois State Water Survey
Cary Eaton Research Triangle Institute

Guy Fenech Environment Canada

Richard Flagler NADP/NTN Coordination Office

Joel Frisch US Geological Survey

Bob Gilpin NADP/NTN Coordination Office

John Gordon US Geological Survey

Rich Grant Purdue University

Kenni James Illinois State Water Survey

Paul Kapinos US Geological Survey

Nancy Lance Environment Canada

Douglas Lantagne Michigan State University

Charles Laughlin Colorado Agricultural Experiment Station

Gary Lear NADP/NTN Coordination Office

Zhiqing Lin McGill University

Steven Lindberg US Environmental Protection Agency

Lewis Linker US Environmental Protection Agency

Maris Lusis Environment Canada

Jim Lynch Penn State University

Dave MacTavish Environment Canada

Lee Maull Dynamac Corporation

Donald McKay Environment Canada

Mark Mesarch University of Nebraska

Michael Moran Environment Canada

Mark Nilles US Geological Survey

Stephen Norton University of Maine

Dan Orr Ontario Ministry of Environment & Energy

Mark Peden Illinois State Water Survey

Rich Poirot Vermont Air Pollution Control Board

Gregory Pratt Minnesota Pollution Control Agency

Chul-Un Ro Environment Canada

Col. John Robertson West Point Military Academy

Gretchen Rohweder Minnesota Acid Deposition Program

Jane Rothert Illinois State Water Survey

Tim Scherbatskoy University of Vermont

Peter Schuepp McGill University

Joseph Scudlark University of Delaware

Luther Smith ManTech Environmental Technology

Gary Stensland Illinois State Water Survey

Bill Sukloff Environment Canada

Clyde Sweet Illinois State Water Survey

Michael Uhart NAPAP

Stephen Vermette Buffalo State College

Sandy Verry USDA Forest Service

Robert Vet Environment Canada

Molly Welker NADP/NTN Coordination Office

Mark Wotawa NADP/NTN Coordination Office