

# Minutes of NADP Subcommittee meetings - First Joint Session, Monday, April 6 1998 Albuquerque, NM

1:00 PM. Scott Dossett chairing.

Introductions: Introductions were made around the room and a sign-in sheet was circulated.

Those present:

MaryAnn Allan	Mark Nilles
Richard Artz	Mark Peden
Van Bowersox	Ellen Porter
Bob Brunette	Eric Prestbo
Scott Dossett	Jane Rothert
Joel Frisch	John Sherwell
John Gordon	John Shimshock
Karen Harlin	Luther Smith
Laura Hult	Gary Stensland
Daniel Jones	Clyde Sweet
Dennis Lamb	Steve Tapia
Bob Larson	Kathy Tonnessen
Gary Lear	Steve Vermette
Mark Nilles	Rosemary Wolfe

Scott described the strategics of the meeting.

Approval of minutes of Fall '97 meeting

Comments: Joel Frisch: he is not the chairman of any committees which was corrected in final minutes.

John Gordon: He is vice-chair of NOS, not chair as the last minutes reflect.

Mark Nilles: Wanted assurance that the minutes will be available over the web. Confirmed by Scott.

Motion to accept passed.

Note from Scott: For publication of appendices on the web - please use WP6/7/8, html, or Word Suite - images should not have to be scanned in, .jpg or .gif are preferred.

Program office report from Van Bowersox:

Van gave a report on the program review: NADP passed review and the program has another five years under the (National Research Support Project No.3) NRSP3 agreement. Copies of the executive summary of the review report were distributed to those present at the meeting and copies of the full report have been sent to the executive committee. Van, speaking from overheads described the review process: it was a two-and-a-half day process that took place starting January 26 in Champagne, Il. The review team was organized by Jack Barnes (now retired) and included Mary Ann Allen from EPRI, Rona Birnbaum from EPA Acid Rain Program, Jim Galloway from UVA, Bob Vet from Atmospheric Environment Services, Canada, Richard Alexander from USGS, Ellis Cowling from NC

State, Mike Uhart from NAPAP. Dan Jones attended as Jack's replacement on the executive committee.

Topics of discussion included:

- functioning of the Illinois State Water survey and the types of activities such as nutrient deposition, excess nutrients in aquatic systems. The activities of the atmospheric sciences and chemistry divisions - where the activities of the CAL and the CO occur - were described.
- the organization of the NADP - budget process, the technical committee structure, goal setting, products, quality assurance and new dimensions.
- specific programs - NADP/NTN, MDN and AIRMoN and the CAL - CO interactions.

Draft report delivered at the end of the interview. The review process was developed around the NRSP3 proposal. In summary - concluded that NADP is an outstanding program with an impeccable record. The review committee also provided a list of comments and recommendations. The review committee raised seven issues to be addressed by the NADP program. The responsibility for developing strategies to addressing the issues on this list was divided between the CO and the three subcommittees. Each subcommittee chair received a handout that highlighted issues specific to their subcommittees.

Issue 1 : Is NADP achieving the NRSP-3 goals?

Subcommittee issues:

- ensuring web access to data and tracking the use of data on the web: to CO
- improve data utilization: to Data Subcommittee
- new products and services: to Effects Subcommittee
- increase NADP involvement in international involvement: to CO

Issue 2 - Can NADP fulfill NRSP3 mandate in future years?

- new ad hoc committee to review new analytes: to NOS & Effects Subcommittee
- closer coordination with CASTNet: to CO

Issue 3 - What is the quality value and utility of NADP data and data products?

- maintain timeliness of data availability: to CO
- ensure the timely inclusion of MDN and AIRMoN data: to CO
- use products for marketing NADP: to CO and Mark Nilles's ad hoc marketing committee
- include subnetworks into NADP data products: to Data Subcommittee
- make QA data available on the web page: jointly to Data and Network Operations Subcommittee
- provide an organizational chart and mission statement on the web: to CO
- reconsider data displays (as for Alaska, say) and include trends reports: to CO

Issue 4 Is the organizational structure efficient and effective?

- have regular conference calls with CO and Executive Committee. (Possible use of E-mail communication discussed): to CO
- hire Assistant Coordinator and QA Manager. Van indicated the intention to a QA Manager hired in June and that he'd hoped to an Assistant Coordinator hired already: to CO

- improve management structures to streamline process for certain decisions: to CO. There was discussion of the difficulty of streamlining the many individual agreements in NADP and the subnetworks. Joel suggested an approach that would have multi-year agreements that would be contingent on funding. Van gave the example of archive sample release as a case of developing protocols for expedited decision making.
- improve coordination between NADP and the subnetworks, especially MDN: to CO

#### Issue 5 Are products adequately marked?

- develop a marketing/communications strategy: to all Subcommittees/ Nilles ad hoc committee. Material submitted to subcommittee chairs based on Ellis Cowling's earlier proposal.
- need to coordinate with the data users - e.g. the CBP, CASTNET: to Effects Subcommittee
- encourage NADP participation in professional societies: to CO

#### Issue 6 Is NADP flexible enough to adapt to future environmental problems?

- maintain broad view of relevant issues: to Effects Subcommittee
- develop mechanisms for responding to significant future issues: to Effects Subcommittee.

#### Issue 7 Is NADP achieving its original vision and does it have a future vision?

- develop a program plan for MDN: to CO
- make available special/custom data products: to Data Subcommittee
- NADP strategic plan should strengthen and stabilize funding: to CO.

There was additional discussion by Rick Artz and Mark Nilles concerning the need for a documentation of needs to respond to funding availability. Mark referred to possible funds in FY00 from CENR under Environmental monitoring needs and refurbishment. Should have a needs and wants list prepared.

#### The CAL Report

Jane gave the CAL report.

- Sarah Milton started in January as a data management assistant.
- In the Electrode study update, the CAL is still working with Broadley James to improve life of electrodes.
- The 1996 CAL QA report is almost done and the '97 part about 60% done. There was a call for reviewers before publication prior to the fall meeting. Luther and John Sherwell volunteered.
- The CAL participated in intercomparisons and performed adequately.
- There will be no site operator training until September.
- Program underway to replace rusty bucket handles.
- The CAL is getting some databases up on Microsoft Access.
- The field component shipping containers are effective.
- The December site audit went off without significant comment.
- The CAL is changing to Gelman from Milipore for better blanks.
- The new bucket cleaning protocol is in place.
- Rick asked for clarification on filter blank analysis: a filter blank is associated with each analytical set.
- The development of a manual for site operators is underway.
- Old archive samples ('95) were distributed according to the current protocol.

- The new AIRMoN site in Sarasota is in operation.
- The snow gauge intercomparison is ongoing.

## HAL/MDN Report

Clyde gave the MDN report.

Expansions in the network were presented along with new web site maps. Then there was discussion over presenting MDN data at the Southern States Mercury Task Force who are interested in using MDN data. Clyde will make a presentation at their May meeting in San Antonio.

The Transition Network Data is on the web. The '96 data was just put up (in April). The MDN is trying to get into sync. with NADP reporting. In the discussion of data format descriptions, Luther raised concerns over single letter Invar codes - er vs r, for example. This issue was referred to the Data Committee. Clyde made some concentration comparisons to '95 data.

Rick Artz suggested pursuing Great Waters Program funds to support the MD & DE MDN sites that Joe Scudlark had operated. NESCAUM is to sponsor a method a method intercomparison.

Regarding a question about auditing of MD sites by ATS (the EPA contract NADP auditor) Gary Lear raised the issue of EPA contract requirements for the EPA contract for the MDN site visits. He indicated that he would send more details later. He also raised the issue of the EPA/ORD initiative on mercury monitoring and the fact that ORD was unaware of the MDN. The ORD program is a FY00 initiative. Eric Prestbo indicated the need to coordinate with the ORD program and encouraged MDN to be responsive to outside needs. There was little clarification of the details of the ORD program, but it was thought by Rick Artz that it would be daily or event based. Mark indicated the importance of differentiating between a research program by ORD and the NADP/MDN with a well defined collection method, QA/QC protocol, data handling and reporting.

Bob Brunette gave the HAL report.

He clarified that EPA Method 1631 was appropriate for all ambient water samples. QC comprised duplicates, spikes and blanks every 10 samples. The method detection limit is based on natural water samples.

The use of the Electronic MDN Observer Form (EMOF) was discussed. The data are compiled in the HAL and passed to the CO.

The dry deposition intercomparison study was discussed. NM10 is the standby site. Eric indicated that the dry-side bucket is a poor receptor as it does not collect dry deposited vapor.

## Nitrogen Brochure

Ellen Porter gave an update on the status of the nitrogen brochure being developed by the Effects Committee. The brochure will point out the effects of deposition and highlight NADP's role in assessing these impacts. The transfer of the CO to Champaign delayed the process. Eva Kingston will be the technical writer assigned to compile the final document that will be four pages in the style of USGS reports. A review draft is expected in early July.

## The CWAP

Mark Nilles briefly mentioned the Clean Water Action Plan as a budget item for federal agencies in FY99. Kathy emphasized the need to highlight the role of deposition in water quality issues.

#### The Chesapeake Bay Initiative.

Rick Artz gave a brief description of the Chesapeake Bay Program's Shared Resource initiative to involve both the water and air state agencies in the Bay states. Reports from previous shared resources meetings are available from NOAA/ARL in Silver Spring, MD.

#### Webpage Update

Bob Larson gave the webpage update. The CSU site is now inactive and the site is operating from the Illinois State Water Survey. There is a new registration form that needs to be filled out once only.

Dennis Lamb raised the issue of the quality of maps that can be retrieved from the site. For some applications the resolution is too poor. Gary suggested using PostScript format with .pdf format for maps. Generally agreed that the maps should be available in some high resolution PC-friendly format in addition to the current versions. Steve pointed out that the MDN map is not yet clickable. Mark Nilles requested that the top page should better indicate what NADP has to offer - it is the mother load of precipitation chemistry in the U.S.

There was discussion about data reporting: MDN and AIRMoN allow invalid data to be requested, with the default being that the data is reported as missing. New data products will need QA protocols. This issue was referred to the Data Subcommittee. An E-mail and discussion page on the web was proposed.

# Minutes of NADP Subcommittee Meetings - Final Joint Session, Wednesday, April 8

## Albuquerque, NM

10:45 a.m.: Subcommittee Reports

ES- Ellen Porter gave report.

The Effects subcommittee discussed the development of the N brochure. Eva Kingston, a technical writer with ISWS, will be working on the brochure, under Van's supervision. Authors were asked to submit graphics to Eva. Eva may be able to have a draft layout by late June.

Steve Vermette will be the lead on a brochure describing the MDN.

At present, Gary Lear does not have time to take the lead on a brochure describing the benefits of long-term monitoring.

The Effects Subcommittee also discussed the need for an NADP Strategic Plan. The Plan should address network spatial coverage (expand into urban, coastal sites?), new analytes, adequacy of methods for current analytes (should preservative be used for NH<sub>3</sub>?), adequacy of current sampling methods for snow, and equipment needs (new collector, rain gauge). The Plan should address the integration of NADP and CASTNET.

DMAS - Luther Smith gave report.

There was some discussion of non-standard data requests, and the possibility of automating such requests on the web site.

NOS- Scott Dossett gave report.

Scott reported that Bob Brunette showed the NOS group (he also showed it to the combined session) the dual-pen recorder developed by Wally Weber for sites with both an NADP and MDN sampler. The recorder is being tested at Chassahowitzka NWR and will soon be available for other sites. Site sponsors will be given a rebate for older single-pen recorders so that the cost of the dual-pen recorder is reduced. During the NOS session, Bob also displayed portions of the MDN sampling train which the HAL is requested changes to. The NOS required a comparison study of two sampling trains. And of a larger MDN sample bottle. The HAL will complete the studies as required and the NOS will debate and vote on then via e-mail.

Van noted that the CO would like to set up email aliases for NADP subgroups. Subgroup leaders were asked to send information on subgroup members to kmccormi@uiuc.edu. Information should include member's name, address (street and P.O. Box), city, state, country code (there are 4 address lines), phone, fax, and email. Note what subgroup the person is on. Van asks that this information be sent as soon as possible.

The group also discussed the need for a new sampler because of current problems regarding the manufacture and delivery of the samplers. A NOS 3 person ad-hoc group will write an issue paper on the topic.

11:30 Gary Lear: CASTNET (schedule was rearranged to accommodate Gary Lear's early flight)

There are currently 50 dry deposition monitoring sites (mostly in the eastern U.S.), plus 19 National Park Service (NPS) sites (mostly in the West), for a total of 69 sites. Not many sites are in the central U.S.

EPA would like to expand the dry deposition network, and may launch an initiative to do so. Some of the current sites are at or near NADP sites; about 20 dry deposition sites are over 50 km from an NADP site. These dry deposition sites have wet deposition samplers because wet deposition data is needed to calculate total deposition. These samplers, however, are not part of NADP.

A study is needed to compare data from NADP sites to data from non-NADP CASTNET wet deposition samplers. These sites will be converted to NADP sites by 10/1/98.

CASTNET also has 7 visibility sampling sites, similar to IMPROVE (Interagency Monitoring of Protected Visual Environments). These sites should be brought into IMPROVE.

CASTNET also operates 3 mountain-cloud sampling sites that will be transferred to EPA's Office of Research and Development. These are research sites that were not intended to be long-term, and thus do not belong under NADP.

The organizational changes at CASTNET should improve operations with EPA's OAQPS.

As noted above, CASTNET sites (total of 20) will be converted to NADP sites. Gary will initiate this process and report to the Executive Committee this summer on his progress. Van Bowersox asked that if this transfer seems probable, should the Budget and Executive Committees be notified. Gary replied yes. Mark Nilles asked if the ISWS lab can handle the additional samples. Mark Peden replied yes. Gary Stensland asked if NPS dry deposition sites are the same as CASTNET sites. Gary Lear replied yes, that the new DISPRO sites are essentially CASTNET sites. There is some confusion now, because of the various terms used in different programs. Gary noted that, for all practical purposes, the term NDDN is no longer used. The old NDDN sites are now CASTNET.

11:45 National Dioxin Monitoring Network- Scott Dossett

Scott gave a history of the Program Office action to date. EPA has proposed a new network to measure dioxin in ambient air. EPA has proposed 9 sites for this year, 30 more next year. Sampling would be weekly, contracted with Versar Corp. Versar is considering having 8 of those sites at NADP sites, and in March 1998, the ISWS sent a memo to the 8 sites, describing the program and encouraging collaboration with the Dioxin Network. Versar may be asked to report at the fall meeting. (See [Appendix C](#))

12:00 Urban Monitoring- Mark Nilles

Mark gave an historical perspective, citing the 1985 NADP design document "Design of the NTN ([USGS Circular 964](#))". The design document allowed placement of urban-influenced sites in the NTN (Mark noted that the NTN and NADP have always been identical). Why did that plan include urban sites? Mark noted that the authors were criticized for proposing only positive, clean sites for the NTN. In response, they proposed 5 urban-influenced sites:

CA42 (near Los Angeles)

NJ39 (near Philadelphia; since moved)

NY51 (near New York City; moved to NY99)

IL19 (near Chicago)

MA13 (near Boston)

These sites are still operating. The design document allows for adding more urban sites. Should NADP consider adding more? In the meantime, it's possible that formerly rural sites have become urban-influenced (e.g., Indiana Dunes NP).

Discussion followed of NADP siting requirements. Mary Ann Allen noted that there is a unified siting document. The NADP siting criteria probably need to be revised, and exceptions to siting criteria noted (e.g., the Brigantine site is 9.6 km from Atlantic City, closer than the siting criteria minimum distance of 10 km).

#### 12:15 Existing Urban Siting Criteria- Scott Dossett

Scott showed overheads and discussed the issues surrounding urban siting principally drawing from published criteria from NADP, EPA and ASTM. (See [Appendix A](#)). In general NADP siting criteria seem to be at dual purpose. The Site Selection and Installation Manual discusses sampling of industrialization however, the distances requirements for minimum proximity to population centers makes this seemingly impossible. The EPA criteria (from work by Eaton and Tew at RTI) simply remove the distance requirements and discuss instead the proximity to specific urban sources (for example dust and power plant emissions. Other criteria distances are shortened in an attempt to make it possible to establish a suitable site in the urban environment. The ASTM work is actually part of ASTM D 5111-95 by Dave Bigelow. The major thrust of that work seems to be that definitions of regional representativeness (should be) based on meteorological phenomena (and) are best developed a posterior. In short very little clear guidance could be found in these sources.

#### 12:30 Urban NADP data- Luther Smith

Luther described some comparisons he had made of urban site data (from state networks) to NADP site data (e.g., Palomar, an NADP site, vs. Escondido; Davis, an NADP site, vs. Sacramento). He noted that more careful comparisons should be made, but that existing state data can be used to determine the extent of urban influence when siting NADP samplers. In locations where state samplers are located near NADP samplers, site comparisons can be made.

He posed the question, can we test NADP sites for urbanization with the current database? Sometimes this can be done with the QA data (e.g., operator=s notes of dirt, dust). Mary Ann Allen asked if cation/anion ratios can detect urbanization. Gary Lear questioned the spatial representativeness of urban sites.

#### The Louisville Study- Mark Nilles

The City of Louisville would like to establish 5 NADP sites. A discussion followed on how to deal with data from the sites. Should the data be considered part of a special study? Noted as urban sites? Gary Stensland made a motion that we look favorably upon the request to add the 5 sites to NADP. The length of the study was discussed. In general, NADP requires a minimum of 3-5 years commitment; in this case, 2 years might be enough. We would like an understanding with Louisville that the data would be accessible through the network and would like (1) a strong expectation of multi-year funding, (2) except for siting, all other NADP protocol be followed, and (3) samplers be placed along transect for statistical reasons.



The motion, that we support a multi-site wet deposition network in Louisville, with the strong expectation of multi-year funding. Except for siting, all other NADP rules and procedures be followed, was seconded and unanimously passed.

1:15 Marketing the NADP- Mark Nilles

Mark's overheads are attached ([Appendix B](#)).

For many people, the NADP products (e.g., web site, data, maps) are the NADP. Marketing comes down to information transfer, and it's important to have knowledge of our customers. This should be a priority. A canned strategy won't work for us. NADP is too different from other organizations.

Recommendations: form ad-hoc group for product launch strategies (e.g., new web info, brochures, maps). Members of marketing committee include Mark Nilles, Gary Lear, Mary Ann Allen, Scott Dossett, Steve Vermette, and Luther Smith.

Mark proposed that the scope of the marketing committee be fairly narrow product launch strategies. A discussion ensued as to whether marketing committee was the proper name for the group. Communication committee, Information transfer committee, Product distribution committee were suggested.

Mary Ann Allen, who served on the program review committee, noted that the review committee was thinking of ways to promote the NADP and thought that this was more than just a product launch strategy.

Mark Nilles noted that a broader effort would require a full FTE.

John Shimshock noted that marketing might be the right term with its implications of finding out what customers want, who the customers are.

A motion was proposed to support the marketing concept presented by Mark Nilles.

1:45 Changes to the USGS collocated sampling program-Scott Dossett

Discussion: should the program be continued as conducted presently? Collocated sites are now rotated; should they be left at one site for longer time? Error in field measurements is 5 times that in lab, so program is essential? Should we consider having one long-term collocated site and one rotated site? It was noted that this depends on the objective of the program. If USGS wants precision data for entire country, rotation is good. If USGS wants to determine the source of the observed variability, then a long-term site is desirable.

ADJOURN