

**NADP Joint Subcommittees Meeting: Portland , OR
April 24-25, 2012**

Tuesday, April 24, 2012

Approval of minutes from Fall 2011 meeting, Jason Karlstrom

Approved by John Sherwell, second Pam Padgett

State of the NADP Address, David Gay

NTN Network has 5 new sites, 2 of which are in Canada. We lost 2.

Pennsylvania added 17 more sites.

Current total of 257 NTN sites.

Argentina has also brought a site into NTN.

Cost per site has increased from \$91 to \$93 per sample.

Bromide is an official analyte.

NTN data is available thru September 2011.

MDN gained 3 sites but lost 5 for a total of 107 with 19 of them analyzing methylmercury. 55 are collocated with NTN and 5 are collecting event samples.

One (down from 2) site is still planned for Mexico.

Cost per sample has decreased from \$159 to \$134.

The NED cost has increased from \$2 to \$3.50 per sample.

AIRMoN keeps moving forward.

AMoN is up to 53 sites with no closures.

Cost for AMoN is \$100/2 week sample or \$3,100 annually.

AMNet lost 4 sites but gained 4. Three in the southeast US and one in WI.

Data available is up to 143,000 observations

A joint effort Quality Assurance paper was published with Environment Canada

The Site Liaison continues to help Global Mercury Observation System

A trip to Taiwan in September will focus on expansion into Southeast Asia

Data is available through December 2011 but is still password protected.

Web updates;

New maps have been produced using Google Earth and PRISM precipitation data. Old maps are still available but are no longer updated.

Spatial error needs to be evaluated in the maps, see PRISM presentation by Chris Daly.

172 publications used NADP data in 2011, includes the Fukushima paper now published within USGS and ES&T.

“Tough” site conditions report – MS10 was vandalized and all the equipment was stolen, including the fence.

Equipment update – All USGS N-CON samplers have been received at USGS sites. The NED now stocks parts for the ETI rainages and the N-CON collectors. We are almost an all digital network.

We are working towards video based training for site operators.

Program Office Travel will include:

Taiwan, March 2012

National Air Quality Conference in Denver, May 14 – 17, 2012

RETS-REMP (nuclear energy) conference in Orlando this June

Income and Expenses – we are in good shape considering the overall financial situations of various NADP site sponsors, especially state agencies.

CAL report, Chris Lehmann

For details see CAL written report, April 2012.

NTN added 16 new sites, and 6 closed.

AIRMoN has 7 active sites, one had a connectivity issue which was resolved.

AMoN added 32 sites, and 2 closed while 2 are pending.

Bromide measurements continue, and Tom is working on incorporation into LIMS.

The new IC needed a replacement autosampler. The one that came with the IC did not meet specifications.

A Phosphorus study comparing ortho P to Total P is ongoing.

AMoN continues to have sampler issues with sporadic high travel blanks. The dessicator study reported at the fall meeting didn't pan out. The current technique is to soak the bodies for 24 hours then dry in a clean room fume hood – again looks promising.

The CAL now stores all wet-deposition samples in the refrigerator. \$10K was budgeted for the refrigerators but they only cost \$4K.

See CAL written report for archive sample distribution. AIRMoN samples are retained for 2 years and NTN for 5 years.

The 2011 QA plan and the 2010 QA Report have been released and are available on the web

MDL, IDL and PQL projections have been made for 2013.

Data submittal to the Program Office. NTN: 102 days, AIRMoN: 67.5 days, and AMoN: 66.5.

Other activities include:

- an Acid Rain Trends paper,

- a Tennessee landfill study looking at ammonium using Radiellos, and

- a project with the Metro East Citizens Air Quality Project (Illinois Action Research) at the University of Illinois; investigating SO_x and NO_x around refineries.

HAL report, Bob Brunette

EPA has issued a Portland Cement MACT and Mercury Air Toxics Standards (MATS) in April of 2012 designed to reduce 90% of Hg emissions by 2015.

UNEP has a legally binding agreement to take effect in 2013.

MDN sites: gained 9, lost 8.

New maps using PRISM show enhanced deposition in the Northwest US.

WA03 lost funding and is on "life support" from HAL just when PRISM started to enhance deposition gradients in the Olympic.

Work continues with tribes to promote MDN.

Collector update – ACM failures were down by 5 to 65, N-CON failures are up from 10 to 44.

Raingage update - Belforts continue to be phased out and replaced by digital raingages.

The Site Liaison took 438 calls and 273 emails; 80% related to connectivity or software issues. HAL has begun to import E-gage data from the Program Office.

2009 HAL review showed no findings on lab operations, 8 on Data management which are being addressed with the conversion of the Access data base to SQL Server. Both databases will run in parallel for a period of testing.

There has been a slight increase in B-coded samples while C-coded samples have remained the same.

Data delivery fell behind due to DB changes but they are now caught up. Methyl mercury for 2011 will be delivered to the PO in May of this year.

The dual chimney N-CON collector is in use at 8 or 9 sites in PA. The second chimney is used for trace metals

Puerto Rico funding has been restored, and the through-fall study will continue.

MDN outreach continues.

QA status report, Mark Rhodes

QAAG had a conference call in April 2012

The 2010 QA report and HAL QAP have been posted. 2011 QA reports are pending.

The CAL external review was performed in July 2011. 2012 HAL review dates are yet to be determined.

The QA documents have been updated to include bromide.

Site Visits; AIRMoN 4, MDN 25, NTN 60 which included 18 collocated, and 14 AMNet.

The sensor study has been designed. Installation is nearly complete. The study is planned to start this spring.

MDN and NTN SOP updates continue – see Olson presentation
Sample collection during special events (e.g., Fukushima) was discussed. Special instructions for site operators may be required.

Update of Field SOPs for MDN/NTN, Mark Olson

A committee was formed and met in October of 2011 to distribute responsibilities. Identified 20 SOP's to be edited and 5 new SOPs that are needed. Eleven SOPs have been edited and are in review. Need to keep pushing to present for approval at fall 2012 meeting

CAL Review and Response - Mark Rhodes and Chris Lehmann
Postponed to day 2

Bag Sampling - Mark Rhodes and Tracy Dombek,

The use of bags inside the NTN sample buckets was discussed. Buckets are difficult to clean/disinfect, which affects nutrient stability. Changing to bag sampling would have a significant cost savings. The catch looks good compared to bucket sampling. A comparison of sample chemistry is ongoing, and nutrient concentrations look better in the bag samples. Chemistry data is planned to be shown at the fall meeting. Shipping sample bags internationally is simpler than shipping NTN buckets. Bag sampling should be “greener”. A bag demonstration was performed and tested by 2 volunteers from the committee.

PRISM Data Uncertainty, Chris Daly

The estimation of uncertainty using PRISM is not clear because it is not measured. Approaches to measure uncertainty were discussed. See Daly et. al. IJOC 2008 for details.

Conclusions: Uncertainty is underestimated. Uncertainty is difficult to measure at high elevations with complex terrain. PRISM has very little bias. The USDA funds PRISM for Federal Crop Insurance but there is little funding for uncertainty estimates.

Wednesday, April 25, 2010

Subcommittee reports – see specific subcommittee minutes for motions and details.

EROS Report, Maggie Kerchner

Three items, old business

- 1) Create universal poster template using Powerpoint. David Gay and Maggie will present at the fall meeting.
- 2) Outreach to Agricultural community, will form committee with Agricultural community and NADP.
- 3) Search NADP publications; How NADP is used in conferences and publications. Chris and Suzanne will discuss and report at the fall meeting.

New Business:

Green meetings. Providing tips to participants. Lisa will work with hotels to incorporate green ideas.

Ray presented NSF funded Integrative Graduate Education and Research Traineeship (IGERT) program focusing on internships and fellowships for students.

EROS/DMAS discussed the animated maps and incorporating data prior to 1994.

DMAS Report, Kevin Mishoe

Motion was made to accept animated maps working back to 1985 including pH and hydrogen ion. Maps will be reviewed prior to posting.

DMAS/NOS discussed homogenizing quality rating codes between networks.

Motion was passed to accept data for incomplete sample analysis if some parameters are measured. Partial sample analysis QR codes would be changed from C to B making them available on the web.

NOS Report, Jason Karlstrom

Greg presented the USGS external QA results and both labs are performing well.

The MDN blind audit program will be dropped. It is no longer a “blind” program.

Mark Rhodes reported the benchtop test results for the digital Belfort raingage. The committee decided not to pursue field testing of the Belfort digital raingage. Greg noted that NEON is using this gage. The leaky bottle study has found that more flexible polymer (“squishy”) bottles do not appear to leak. Motion was passed to have CAL track and remove leaky bottles from the supply and incorporate the flexible bottles into the network. 500 ml bottles were tested and will be incorporated for international use. MDN sample loss study continued focusing on the thistle tube. New thistle tube designs will be evaluated.

AMoN continues to have problems with travel blanks. No changes to the number of triplicates or travel blanks are planned at this time.

EEMS site surveys were reviewed with a comment that siting criteria violations may change seasonally (e.g. vegetation growth, soil disturbances, etc.). QAAG will review siting criteria based on results from the site survey program.

Analyte priority for low volume NTN samples will be evaluated at the fall meeting.

Results from a QA study incorporating sample dilution will be available at that time.

A motion was presented and accepted to assess sample validity based on operator observations for N-CON collectors with the Thies sensor. Samples will be assumed to be valid unless proven otherwise by various sources of evidence, not solely on the 6-hour “Dry Exposure” limits.

CLAD Report, Jason Lynch

TDEP and CLAD met to discuss needs of CLAD with TDEP.
The first phase of the FOCUS program is complete.
Nine summaries of CLAD updates were presented .
The future direction will focus on development of communications and an annual report and possible a map.

Total Deposition Committee Report, Kristi Morris

Two meetings were held since the last subcommittee meeting. The Committee's mission statement was passed.

Areas related to the measurement, monitoring, and modeling of atmospheric deposition were tabulated and discussed. Gaps were identified with the goal to prioritize the top 3 to 5 items.

Several presentations were given on Monday.

Work continues toward a map product.

A full day meeting is planned for Friday, October 5, 2012 at the fall meeting.

CAL Review and Response - Mark Rhodes and Chris Lehmann

CAL review was held July 18-21, 2011, and the results are available on-line.

Team of 4 led by Mike McHale of the USGS.

There were 62 observations, 59 recommendation and 35 findings. Findings require responses from the lab and were presented briefly.

Need to establish time table for training and identify a backup for the data management position.

A few additional major findings are: a) Define core responsibilities, b) Move the site liaison position to the Program Office, c) Establish a problem tracking system, and d) prioritize migration to a centralized data management structure.

The logistics of CAL accreditation were discussed and will be investigated with a presentation at the fall meeting.

HAL Facility Relocation, Bob Brunette

The HAL moved to a new 17,000 ft² location over the December 17, 2011 weekend

All instruments needed to be recertified following the move, and prior to use for sample analysis.

The facility was described, and is reported to be working well.

Fall 2012 Annual meeting and science symposium,

The 2012 Fall meeting will be held in Portland, ME at the Double Tree Inn. Expect a field trip to be on the agenda for Friday, October 5, 2012.

Suggested Spring 2012 Meeting Location, Mark Olson

Madison, WI was chosen for the Spring 2013 meeting location.

Motion to adjourn, Jason Karlstrom second Eric Prestbo.

Wednesday April 25, 2012 @ 15:30

