

Joint Subcommittee Meeting

Fort Lauderdale, Florida, April 15-16, 2014

Tuesday, April 15, 2014, 8:30 am – 12:00 pm

- **Welcome – Melissa Puchalski**
 - Introductions around the room
 - **Motion:** To approve minutes from Fall 2013 Meeting in Park City, UT, moved by Greg Wetherbee, seconded by Andy Johnson. **Motion passed**
- **State of the NADP, David Gay**
 - Financial Highlights:
 - Income for FY14 was \$3,469,638 coming into NADP Program Office
 - Expenses for FY14 were: 45% CAL, 24% HAL, 25% personnel, 5% line items (only flexibility in budget), and 1% Mercury Litter Fall Initiative
 - What's New:
 - NTN:
 - Added 5 sites, lost 6, currently 266 sites
 - TVA no longer supporting environmental monitoring, currently supporting 5 sites, so network may lose sites if other sponsors not found
 - 2 new sites, State Ag in collaboration with SC State and DOE
 - LA12 will be restarted this year
 - Mexico is in the early stages of possibly starting up 7 sites
 - AIRMoN:
 - 6 sites currently
 - VT99 closed on 5/31/13
 - AMoN:
 - 65 sites currently
 - Added 4 new sites
 - MDN:
 - Currently 116 sites, lost 6, added 11
 - AMNet:
 - 24 sites currently, lost 1, added 3, 1 restarted
 - MLI (Mercury Litterfall Initiative):
 - Currently 14 sites
 - E-gage Status:
 - 89% of sites are digital, 88% of NTN, 91% of MDN
 - 36 of 312 (11%) sites do not have an e-gage
 - Talks & Travels:
 - International Mercury Conference, Scotland, July 2013
 - Asia Mercury discussions
 - Indiana Watershed Webinar
 - Budget meeting in Denver
 - Tribal Mercury Workshop
 - Vietnam, Thailand & Taiwan trip
 - HAL visit, Dec. 2013

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- IC Mercury Global Pollutant, Korea
 - Air Pollution Workshop, Guadalajara, Mexico
 - There was an error in the NADP annual report on the nitrate map, necessitating a reprint
 - There's now a Google Earth variation of the maps, using KMZ files
- **CAL Status Report, Chris Lehmann**
 - Site Operations and Site Support:
 - Processed almost 17,000 samples, making it the busiest year ever
 - Continue to meet the data submission schedule
 - Training Webinars:
 - Going well – access to webinars on CAL website
 - Upcoming May, 2014, NTN collector
 - New coupler for AMoN
 - AMoN still having random high travel blanks, PO and CAL continuing investigation
 - NTN Sample Analysis Order:
 - Discussion on changing sample flow for low volume samples. The CAL will discuss further and come to Fall 2014 meeting with proposal
 - New FIA colorimeter for AMoN, should be online in May, after comparison data prove out completed
 - Looking at purchasing a new ICP
 - Archive Sample Distribution:
 - Sent out 1,483 AIRMoN samples
 - Sent out 4,200 NTN samples
 - Current archive for NTN goes back to 2008
 - Detection levels changed minimally
 - Variability within control
 - Will send final data validation to sites when complete, rather than wait for publication on web site.
 - Environment Canada is interested in passive NO₂/SO₂
 - There is a link for an email request for laboratory SOPs available on the CAL website
 - NSF funded project for NH₃ flux (eddy accumulation)
- **Updates to the NADP Email Lists, Bob Larson**
 - University of Illinois changed software, so email addresses for listservs changed from lastname@listserv.illinois.edu to lastname@lists.illinois.edu
 - Should forward, but best to update email contact info
- **Handling Data Gaps due to Federal Government Shutdown, Amy Ludtke**
 - Shutdown lasted from 10/1/2013 – 10/16/2013, encompassing 3 Tuesdays.
 - 70 NTN sites had missing samples from shutdown
 - 46 sites had invalid data as sample duration exceeded 194 hours
 - The Program Office plans to make applicable notations on maps, indicating sites that didn't make the map due to shutdown

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- **Total Deposition Status Overview and Discussion, Gary Lear**
 - Adopted a hybrid approach to maps, using monitoring data concentrations when available and gridded modeled concentrations and deposition velocities
 - Paper by Gary Lear and Donna Schwede was accepted in Atmospheric Environment
 - Plan on developing a user's guide on how to use maps to include:
 - Need to remember that these are estimates, we don't know actual values
 - Keep in mind that deposition changes on maps as sites become active (or inactive)
 - Throughfall is not representative of total deposition
 - Futures TDEP map steps:
 - Try to characterize and quantify uncertainty
 - Extend estimates to < the year 2000
 - Developing web page that has grids, images, and documentation. Site will be hosted by EPA, but linked to from NADP <ftp://ftp.epa.gov/castnet/tdep>
- **NOxSOx Secondary Standard Review Process, Kris Novak**
 - Primary standard is a human health standard, secondary standard to protect public welfare and the environment
 - NAAQS Review Process
 - Workshop took place March 4-6, 2014, kick off process for a 5-year cycle
 - Contacts are Tara Greaver greaver.tara@epa.gov and Kris Novak, novak.kris@epa.gov
 - Cutoff for new studies is August 2015
 - Summary of final rulemaking is still:
 - 1971 Annual NO₂ standard=53 ppb
 - 1971 3-hour SO₂ standard=500 ppb
 - Major challenges are translating concentration to deposition and translating deposition loads to ecological effects
 - Currently a lawsuit against EPA on 2012 decision, that may delay schedule
- **HAL Report, Bob Brunette**
 - Mercury Air Toxics Standard (MATS)
 - Will go into effect April 2015
 - Court upheld standard entirely
 - Deadline to start monitoring 25 megawatts to reduce mercury emissions by 90%
 - GMOS in 3rd of 4th year
 - Makah MDN WA03 needs support funding
 - Important site due to offshore flow
 - Much of the US mercury deposition from non-US based sources
 - USGS map of mercury in wet deposition by eco-regions
 - MDN Network Operations and equipment modernization
 - 61 MDN collectors (+5)
 - 53 N-CON MDN (+1)
 - 10 Belfort (-1)

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- 104 egage (+7)
- Site Liaison issues:
 - Replaced 8 motor boxes, due to harsh winter
 - Had no problems w/ N-CON motors icing up
 - Disqualified 16 samples, that had frozen and broken during shipping, again due to harsh winter
- HAL Review Summary from 2012
 - Originally 9 findings, 8 have been taken care of, and the last item is in review
- Data delivery schedule is on track
- 2013 QA report will be done by June or July, 2014
- Evaporation Study is ongoing and in Phase II & III
- Trace Metals Initiative
 - 10 sites
 - Suite of metals vary depending on the sponsor's needs
- Publications, outreach, and accreditations
 - Publication of Total Mercury Deposition at MDN sites
 - Continue in MDN Outreach efforts
 - ISO certified
 - DoD accreditation
- Breakout to sub committees and meet back next day for continuation of Joint Sub-committee meeting.

Wednesday, April 16, 2014, 1:30 – 4:00 pm

- **Call to order, Melissa Puchalski**
- **TDEP, CLAD, NOS, DMAS, & EROS Subcommittee Reports**
 - See each sub-committee's minutes for details and highlights
- **International Mercury Work, David Schmeltz**
 - Progress towards developing internal mercury monitoring
 - Coordination with agencies in East Asia to develop a standardized regional network for transport and deposition of mercury
 - Canada, India, Japan, S. Korea, Taiwan, Thailand, US, and Vietnam are generating baseline data
 - Would like it based on the NADP model
 - Minamata Convention on Mercury
 - US signed and ratified convention on 11/13/13. First country to agree and join
 - Need 50 countries to join for adoption
 - Global Mercury Observation System (GMOS)
 - NADP, EPA, Environment Canada represented on SAB
 - Few sites in North America (AMNet on Mauna Loa)
 - Few sites in Asia

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- Questions on where is the data, since it's year 4 of 5, what QA, is it comparable to AMNet & MDN, how to do long-term trending with 7 labs reporting data
- Regionally
 - US & Taiwan have a mercury monitoring collaboration agreement with the USEPA and Taiwan EPA (EPAT)
 - Mercury monitoring QA training workshop with NADP, EPAT, and USEPA
- Map of global emissions of mercury
 - Asia accounts for 50% of global anthropogenic sources
 - East and SE Asia account for 40%
- Observations and opportunities
 - Range of mercury monitoring capabilities
 - Lots of papers, but no databases of measurements
 - Need to improve availability of data sharing
- Asia-Pacific Mercury monitoring workshop (2012-2013)
 - Established science advisory group
 - Developed a pilot network for mercury monitoring
 - Taiwan will do sample analysis
- NADP in SE Asia
 - EPA donated a MDN N-CON collector to pilot network in Hanoi, Vietnam
 - EPA paid for David Gay to Hanoi, Vietnam
 - Lots of great Asia pictures of trip
- **QA Report, Mark Rhodes**
 - QA Reports
 - 2009-2010: AMNet report in external review
 - 2011: AMNet report in external review
 - 2012: Field survey reports posted, HAL report posted, CAL report in progress, AMNet report ready to post
 - 2013: Field surveys, HAL, CAL, & AMNet all in progress
 - External Reviews
 - PO Review took place June 11-13, 2013. Reviewers were team leader, Gary Lear (USEPA), Amy Ludtke (USGS), & Kristi Morris (NPS)
 - CAL Review, scheduled for June 3-5, 2014. Reviewers will be: Eric Hebert (EEMS), David Roth (USGS), Richard Tanabe (Environment Canada), and Greg Wetherbee (USGS)
 - HAL Review, to be scheduled in 2015
 - Site Surveys (since June 2013)
 - AIRMoN (0), MDN (29), NTN (61), Collocated (15), and AMNet (14)
 - No red flags
 - New contract year begins in June 2014
- **Webinar Training update, Jason Karlstrom**
 - General Information

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- Site is: www.anymeeting.com
- Recorded for future reference
- Webinars and attendance
 - AMoN sample change, 9 attendees
 - Field forms and data processing, 20 attendees
 - MDN sample change, 40 attendees
 - NTN Noah IV troubleshooting
 - MDN trace metal scheduled for April 2014
 - NTN N-CON bucket change scheduled for May, 2014
 - Webinars work well for interactive questions
 - Technical Issues
 - Replaced audio interface, resolved problems
 - YouTube often blocked, so no longer used
 - Suggestion from folks on the east coast was to try to end webinars by 3:30 Eastern Time
- Training Videos
 - MDN-ACM motorbox replacement, finished
 - MDN-ACM sensor replacement, finished
 - NTN N-CON bucket change, finished
 - NTN ACM sample change, in production
 - MDN N-CON sample change, next
 - Videos to be posted on NADP site
- **Nitrogen Workshop recap, John Walker**
 - Workshop was well attended with wide range of speakers
 - Summary, knowledge gap, and recommendations
 - Expensive for whole suite of N budget
 - May need to compromise w/ minimum set of measurements to quantify the majority of the N deposition budget
 - Need to validate or adopt NH₃
 - Need to understand chemical processes under canopy
 - Knowledge gaps and need better quantification in high elevations sites and/or complex terrains
 - Brought in group atypical to NADP. They were enthusiastic and would be an asset to future NADP meetings
- **Spring 2015 Meeting, Amy Ludtke**
 - Top 3 non-binding votes for location were 1) Asilomar Conference Center, Asilomar, CA, 2) Millennium Knickerbocker Hotel, downtown Chicago, IL, and 3) Golden Hotel, Golden, CO
 - Tentative dates: April 14 – 17, 2014
- **Fall 2014 Meeting, Marty Risch**
 - Hilton Hotel and Suites, Indianapolis, IN, October 21 – 24, 2014

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- Hotel is user friendly, walking distance to wide selection of restaurants
- Schedule so far
 - Tuesday, 10/21/14, subcommittee, joint, and exec meetings
 - Wednesday, 10/22/14, Science Day 1, with evening student poster session
 - Thursday, 10/23/14, Science Day 2, with keynote speaker
 - Thursday evening, Field Trip
 - Friday, 10/24/14, TDEP meeting
- Theme: The Global Connection Air and Water
- Call for abstracts May 15, 2014, due by July 15, 2014
- Keynote Speaker: David Wolf, NASA astronaut, MD, and a native of Indianapolis
- **Acid Rain Conference 2015, Doug Burns**
 - Rochester, NY, October 19 – 23, 2015
 - Hoping for an attendance of 600 with 100 from Europe
 - Banquet will be mid-week
 - Organizing committee has started
 - NADP business meeting may be on Sunday, 10/18/15
 - Science meetings will be Tuesday through early Friday
 - Field trip will be Friday afternoon
 - May have training courses
 - More updates as we progress
- **Motion:** To adjourn by Melissa Puchalski, seconded by Mark Nilles. **Motion passed**