National Atmospheric Deposition Program
Spring Meeting
Royal Sonesta Hotel
New Orleans, LA
March 25-26, 2003

Minutes of the Joint Session of the NADP Subcommittees
Submitted by Karen Harlin, NOS secretary

Tuesday, March 25, 2003

Agenda Item 1: Introduction of Attendees and Agenda Overview, Mark Nilles, Network Operations Subcommittee (NOS) Chair
Nilles called the meeting to order at 8:00 am. Nilles welcomed everyone to the meeting, briefly reviewed the NADP organization, described voting rules, reviewed pending discussions of the individual subcommittees for the afternoon sessions, and introduced the subcommittee meeting Chairs. Nilles reviewed the agenda for the 3/25 morning session and the full-day 3/26 session. The meeting agenda is provided in **Attachment 1a**. There were 30 attendees for the joint session. The attendees introduced themselves and described their affiliation with the NADP. A list of meeting attendees is provided in **Attachment 1b.**

Agenda Item 2: NADP Program Office Report, Van Bowersox, NADP Coordinator
A status report was provided and two handouts distributed: (1) Annual Report (available on the NADP website as SAES 422 Multi-state Research Activity Accomplishment Report http://nadp.sws.uiuc.edu/lib/program/SAES422-2002.pdf); and (2) Bioterrorism paper from the summer of 2002 AWMA meeting. Bowersox will provide a PDF file of the written PO report to the executive committee after the meeting. The PowerPoint presentation is provided as **Attachment 2.** Highlights of the report included the following:

- 2003 Fall NADP Technical Meeting in Washington, DC, October 20-22, "Long Term Monitoring: Supporting Science and Informing Policy", This meeting also marks the 25th Anniversary of the NADP
- 2003 Ammonia Workshop in Washington DC in conjunction with the NADP technical meeting, October 22-24
- Contributed journal articles will be submitted to Atmospheric Environment or another journal from the 2003 NADP Technical Meeting and the Ammonia Workshop as has been done for Atmos. Environment twice in the last 5 years
- Important meetings:
    - International Nitrogen Conference in China. Galloway, Cowling, and others are organizing it as a follow-up to the Oct 2001 Nitrogen conference
    - Acid Rain meeting in Czech Republic, 2005
- >70 journal articles published with NADP data last year (new high)!
- NADP webpage users reviewed; most users from NE USA
- NADP archive sample are extensively used by other researchers (Details are presented in Harlin's presentation to NOS)
- Review of other Program Office presentations for remainder of meeting (QA, New equipment & collectors)

- Status of NRSP-3 five-year renewal (through Sept. 2007), "A Long Term Monitoring Program in Support of Research on the Effects of Atmospheric and Chemical Deposition"
    - Four State Ag Experiment Station regions: Southern (accepted); North East (accepted); North Central (required additional documentation for their regional committees; then accepted and complimented the technical committee for its accomplishments); Western (meeting this week)
    - Recommendation that we get more involved with education. Bowersox says 40% of our users are involved with education. Bowersox reviewed the "Inside Rain" educational exercises developed for the high school level using data from our website. More information is available at: http://www.nsta.org/pubs/nstapress/pb143x02a/default.htm
    - Our proposal is posted on NADP website at http://nadp.sws.uiuc.edu/nrsp3/ and the SAES website (National Information Management and Support System (NIMSS) housed at the Univ. of MD
- Changes in NADP since Fall meeting:
    - NTN New sites (5): Northern Idaho Priest River Exp. Forest (Forest Service); Arizona Petrified Forest National Park (NPS); South Dakota Wind Cave National Park (NPS); South eastern Pennsylvania (operated by Millersville University) in the Chesapeake Bay watershed; Sapelo Island, Georgia (Georgia DNR)
    - NTN Closed Sites (2): MD03 (funded by Baltimore Gas and Electric); NV00 Red Rock Canyon
    - New collocated sites in Wisconsin. and Oklahoma
    - Moved sites reviewed briefly
    - MDN and NTN collocated sites now number 32
    - 25-year sites will be honored at 2003 meeting in Washington, DC. Four operators have operated sites for 25 years
    - AIRMoN changes: Trap Pond State Park , DE99 will convert to NTN site
- Emerging Issues
    - National Security & Health Issues
        - Kathy Lambert and Van Bowersox article in EM "Environmental Monitoring and National Security: Is there a connection?" to emphasize that our network could be used for homeland security to look for biohazards, chemicals, or other toxic elements in precipitation.
        - In 1986 after the Chernobyl accident in Ukraine we were asked by the Department of Energy to provide samples to Environmental Measurements Laboratory (EML) for Cs^{-137} and I^{131} measurements.
    - Source receptor relationships
        - AIRMoN formed in 1992 and can be used to calculate back trajectories
    - Update instruments (Belfort raingage and NADP precipitation collector)
        - Geonor T200 raingage (used by US Climate Reference Network), used at Illinois Climate Reference Network and has some false positive issues
        - Ott-Pluvio raingage (tested at 6 sites by USGS)

data summary presented with good correlation with Belfort and stick gage; excellent performance but may have some false positives
        - ETI NOAH III raingage

Agenda Item 3: Central Analytical Laboratory (CAL) Report, Karen Harlin, CAL Director

A status report was provided and a written report distributed (**Attachment 3a).** The PowerPoint presentation is provided as **Attachment 3b.** Highlights of the report included the following:

- Site Operations:
    - NTN - 250 active sites as of 03/20/03; 18 new sites in 2003; 8% increase
    - AIRMoN -10 active sites now but will convert DE99 to NTN and loose 1 site; 3 sites had ATS audit this year (new for AIRMoN)
    - 33rd Site Operator Training Course will be April 2003. Includes AIRMoN and abbreviated MDN training; 30 registered
    - NTN Site Operation Manual Revisions: Appendix A (Equipment), Section 7 (Contacts), and Appendix B (pH and conductivity measurements) revisions are being finalized
    - 2004 CALendar requests for pictures, May 30th deadline
    - NTN Training Video "Every Tuesday Morning" digitized and available on CD
    - NEW collector troubleshooting decal sent to sites
    - Lid seal change scheduled for July 8, 2003. No unusual problems from 2002 results with 95% returned
- Laboratory Operations:
    - Samples received: 236,051 samples in NTN database; 14,800 samples in AIRMoN database
    - New Equipment
        - ICP-AES ordered to replace old AAS for cation analysis
        - Will follow 1989 DOE report for guideline laboratory procedural method changes
    - Focus on optimization of nutrient methods
    - Delays in reporting sample results were experienced in 2002 due to system interferences from the Dionex sampler vials with filters. Corrective Action required that AIRMoN samples are no longer filtered using Dionex vials with filters but are now decanted. Note: NTN samples are filtered during sample preparation and did not use the suspect vials. This problem, however, caused contamination of the IC system which is shared by both networks and had to be corrected to continue analysis.
    - NTN active archive and current (special) samples approved in 2002 have been shipped. AIRMoN 1999 archive sample distribution is pending. Harlin will give detailed report at NOS.
    - Personnel changes: Chemist (Bachman) retired in December; Dombek replaced her for AAS analysis.
- QA/QC
    - CAL 2002 NOS Audit, Final response from CAL was provided to Chris Lehmann, NADP QA Manager in February 2003.
    - 2000 CAL QA Report completed in December 2002, available on website

http://nadp.sws.uiuc.edu/lib/qa/qa2000.pdf
    - CAL Quality Assurance Plan; complete revision completed August 2002, available on website http://nadp.sws.uiuc.edu/lib/qaplans/qapCal2002.pdf
- Data Management
    - NTN data to PO through November 2002
    - AIRMoN data to PO through December 2002
    - Site Information Database
        - Completed; information on MDN, NTN, and AIRMoN
    - Personnel changes
        - Search for new NTN data review specialist (replacement for Rakow)
        - Retiring programmer/computer support (Dzurisin)
- Research
    - WMO updates, shipped first of two sets in March 2003
    - Bag liners for NADP samplers, details reported at NOS
    - Organic and total nitrogen, cooperative effort with Dr. Mark Castro to compare data from both labs for Chesapeake Bay sites.
    - Biohazards and microbes in precipitation, Innovative Fund proposal submitted to USDA via Dan Jones entitled "Feasibility Study to Evaluate the Use of Precipitation Samples as an Effective Means of Monitoring the Environment for Naturally Occurring, Accidental, or Intentional Release of Bacillus anthracis and Other Toxic Agents" –status: not funded. A method was developed by Dr. Maddox, UIUC College of Veterinary Medicine, for isolating and identifying B. anthracis in precipitation samples. Will continue to look for additional funding.
- Outreach
    - National Chemistry Week activity for October 2003--theme is "Chemistry of the Atmosphere". Harlin is working with the American Chemical Society to include Precipitation Chemistry in the national educational outreach program that targets the 3rd and 4th grade levels. Educational materials for this grade level and web page links are requested.

Agenda Item 4: Plastic Bag Liner for sample collection status report, Karen Harlin, CAL Director

A status report was provided for utilizing plastic liners/bags in NADP NTN samplers. The PowerPoint presentation is provided as **Attachment 4.** Highlights of the report included the following:

- Benefits
  - Reduce costs to the sites and the program
  - Increased flexibility for sampler redesign since inventory for new "bucket" and mailers would not be required
- Sampler Considerations
  - Current 3.5 gal bucket is 10" deep and 11.5" diameter
    - Depth to diameter ratio is <1
    - 5 gallon bucket ratio = 1.2
    - CAPMoN ratio = 1.6
    - Recommendation ratio ~ 2.0
- Develop working procedure for field operations using bags using a protocol design which would continue to decant sample rather than ship sample in bag as CAPMoN does
- Bag considerations
  - Many bags have been tested and CAL has seen positive and negative bias from bags
    - Most bags tested were rejected due to chemical contamination from 'slip' and 'antiblock' additives added at plant or when resin is manufactured (esp. Ca, Cl, NH4, pH increase or decrease). Two manufacturers are promising.
    - VIN Plastics, Ontario have very clean bags but need to work with them to eliminate Mylar exterior coating. This company manufactures the CAPMoN bags
    - KNF Room Products manufactures clean room and Teflon bags. Teflon is preferred but is cost prohibitive (~$50 each).
    - Important to find a manufacturer than can provide a clean bag with CONSISTENT quality. Likely will need a 4 to 6 mil thickness of bag.
    - Shape of new NADP sampler and preferred bag shape needs to be decided
      - Flat bag, tapered bag, pail-liner style
      - Design to prevent bag blow-out with high winds—need to secure the bottom of the bag
- Will this be cost effective? YES!
  - Flat bags will cost ~ $0.50 to $1.00 each; other shapes cost estimates are pending quotes from manufacturers
  - Current costs to ship each mailer from site to CAL is $7 to $25 each. Mailing costs could be substantially reduced with this protocol
  - Personnel time to wash buckets substantially reduced
  - Inventory costs required to accommodate new sampler design would be substantially reduced

Agenda Item 5: Mercury Deposition Network Report, Clyde Sweet, NADP Associate Coordinator for Toxics

A status report and one handout was distributed--The new Mercury Deposition Network brochure which is available on the NADP website http://nadp.sws.uiuc.edu/lib/brochures/mdn2002.pdf

The overheads used in this presentation are provided as **Attachment 5.** Highlights of the report included the following:

- Special Issues: Effect of samplers above ground level vs. ground level. FL34 site ideal location for doing study to look at differences in chemistry and rain due to ground level vs. 10 m tower. This study is starting this week.
- Mercury version of N-CON collector coming and will be tested at Bondville site
- New personnel: ½ time staff to be added before next meeting
- Site updates for FY 2003
    - Currently 80 sites
    - 10 New sites (3 collocated with NTN),
    - 11 Pending sites
    - 3 Proposed sites
    - 3 At risk sites (SC03; ON10; ON11)
- Data & Publication
    - Final 2002 Total Hg data received from HAL and will be on web by 5/1/2003
    - Draft manuscript "Wet Deposition of Mercury in the U.S. and Canada, 1996-2001: Results from the NADP Mercury Deposition Network (MDN)" will be submitted to Atmos. Environment
- HAL Audit, scheduled for 2003
- MDN Training course, scheduled for 2003
- Meetings: Sweet (Marty Risch), Workshop on "Measuring Atmospheric Mercury: Goals, Methods and Results" sponsored by USEPA and MI DEQ in Lansing, MI 3/26/2003
- Other Special Studies
    - MDN type sampler installed on Clingman's Dome in Great Smokey Mtns NP to provide high altitude data and compare with TN11.
    - 2 MDN type sampling stations may be installed in Mexico. NADP will advise and loan equipment (2002-2003)

Agenda Item 6: Mercury Analytical Laboratory (HAL) Report, Bob Brunette, HAL Director

A status report was given. The Powerpoint presentation is provided as **Attachment 6.** Highlights of the report included the following:

- Site Issues & Operational Issues
    - Growth at 12-15% per year
    - Special study site @ Clingman's Dome; will not operated in winter since no power at site. First sample off today.
    - Site status reviewed, Of interest: New site OR10 is a unique site (over 100 inches of rain per year and affected by off shore Pacific weather patterns); see presentation for details on other sites reviewed
    - Supplies and equipment for 20 new sites in inventory

    - March 2002 HAL has new facility with dedicated areas for MDN which will allow for growth up to 250-300 sites for analytical support
    - Staffing increased (four staff present at meeting and introduced)
    - Have 5 dedicated staff plus pending a new analyst hire for a total of 6
- Data management
    - Backlog ending. 1st quarter 2003 data to be sent to the PO May 2003; Bob Larson assisted in upgrade of database
    - Methyl Hg database still lagging; will likely adapt MDN database for MeHg; interest by site sponsors for data; Samples are composited to yield a 4-week rolling average -- so 12-13 samples per year per site for analysis
    - Trace metals; not part of NADP but interest by sites; white paper submitted to NADP ~ 2 years ago; data system in place by trace metals lab ($150 for ~13 metals); a lot of QC data available; 6 sites doing trace metals now, but 4 are interested; adapted MDN sample train for trace metals and easy to do; interest due to data needed for environmental regulations
- QA/QC
    - Annual QA/QC report will be emailed in 2nd quarter 2003 to site sponsors
    - USGS Performance Evaluation Samples for mercury trace metals
    - NADP Lab audit of Frontier Geosciences will be June 2003
    - Field QA studies
        - Aerochem, N-CON, and MIC-B collector intercomparison study completed at Bondville for Hg; Clyde Sweet will have this as a Water Survey Internal report; Nilles recommends distribution and access to this report; Sweet will put it on the website
        - WA18 site starting intercomparison ~ April 2003
        - WI-DNR MIC-B and Aerochem comparison related study will start this year also
    - Site start-up procedures are being revised (3rd Draft)
    - SOPs reviewed and updated by May 2003
    - Belfort event recorder modification
- Special Projects
    - ICP-MS with direct reaction chamber (DRC) used for special studies for a suite of trace metals including As and Se (hydride generation atomic fluorescence), Cu, Ni, Pb, Cr and others; may use second chimney in collector to redesign a sampling chain for this application
    - Event based sampling for MDN at 3 sites for total and MeHg (esp. Devil's Lake, WI)
    - Long range transport of air toxics research being done by Eric Presbo
    - Total gaseous mercury in ambient air method developed for use to monitor Hg near emission point sources; also landfill Hg emissions
    - OR10; 15,000 sq mile reserve; 50 year precipitation record; stream ecologists and hydrologists are defining the watershed. Frontier will be doing trace metals for this watershed; tree core data may be done for Hg
    - Summarize all MeHg data (7-years) for a publication

The Joint Session adjourned at ~ 12 pm until Wednesday morning.

NOS, DMAS, and Effects Subcommittees met meet from 1:00 to 5:00 pm

Wednesday, March 26, 2003

Agenda Item 7: Mark Nilles, NOS Chair, called the meeting to order at 8:00 am

Agenda Item 8: YES Inc Collector Performance, Scott Dossett, NADP Site Liaison—**(**Attachment 8)
Reviewed current design with gold grid optical sensor, ERDA data ports set up for PALM technology; DC power. Problems: sensor head too big & may cause splash problems, power supply problems, ERDA port, sticking open after an event. Positives: Strong drive motor, good lid seal. Currently 20% of sites are DC/solar only. Other sensors reviewed and compared. Scott's recommendation "At present the collector cannot be relied upon for wet only deposition samples". Will test new senor and report back (new sensor rec'd 3/11/03). ETI sensor showing good performance due to clean signal and operates in light snow. Other sensors and collectors were discussed—see presentation.

Agenda Item 9: Climate Reference Network CD-ROM, Scott Dossett, NADP Site Liaison—(Attachment 9)
CDROM with booklet is being distributed by CRN as a multimedia presentation for PR. This was demonstrated and passed around. Play time is 6 minutes. IL11 is a CRN site.

Agenda Item 10: Precipitation Data-collocated NTN and MDN Sites, Van Bowersox—(Attachment 10)
There are 32 NTN and MDN collocated sites. Data were presented from 1996-2001 data (24 collocated sites where same rain gage used). –5% to +3% differences in data with same raingage. Van reviewed the procedures used to validate precip. data at both labs. Differences: @ MDN sample not weighed in field as check; every chart read. @ CAL not every chart is read but cpu program checks field weights vs. precip. amount, collector volume vs. gage volume, and other computer checks of precip. done by data screener. ± 0.02" is visual resolution of raingage chart reading.

MOTION by Jane Rothert: The Program Office shall report one reading for precipitation amounts for NTN and MDN collocated sites when the same raingage is used for both networks. Second: Luther Smith
Motion passed.
Action Item: A working group comprised of Clyde Sweet, Bob Brunette, and Karen Harlin was formed to develop a plan and to report to the July 2003 Executive Committee.

MOTION by Scott Dossett: The MDN shall be required to weigh bottles in the field to correlate and resolve precipitation amounts with raingage amounts using a protocol similar to NTN effective the first Tuesday 2004. Second by Luther Smith Passed 13 for; 11 against.
Action Item: Will be referred to the executive committee as a recommendation in July 2003 due to budget considerations.

Agenda Item 11: N-CON version II MDN prototype collector, Mark Nilles, NOS Chair
See Attachment 11.
Five N-CON optical collectors purchased for Boston area mercury study. Collocated at one MDN site. Easy to install, strong & reliable power supplies, reliable. New plastic disposable bottle with Teflon sample train used for mercury rather than glass collection system. Also using a Wisc. laboratory for analysis and data are comparable at collocated MDN site. Redesigned heating and cooling system. Mercury-free water needed to clean top edge of collector. Screws loosen in cold weather and lids can loosen up causing uncertainty in lid position. Solar panel at one site but this was under-designed.

Agenda Item 12: Ott Pluvio update, reports, software and telemetry, Mark Nilles, NOS Chair
See Attachment 12.

Agenda Item 13: Discussion: Testing and decision for new equipment
See Attachment 13.

Agenda Item 14: Spring Meeting discussion, Natalie Latysh, NOS Vice Chair
Straw poll for Spring 2004 meeting:
Santa Fe, NM (17)
Point Reyes (N San Francisco) (17)
Brown County Indiana State Park (4)
Austin, TX (0)
Dude Ranch (San Antonio) (3)
Death Valley (4)
Reno (1)
Estes Park (0)
San Diego (5)

Agenda Item 15: Urban site data utilization in NADP products and other Data Subcommittee issues for Joint Session, Bob Larson, Data Chair
See attachment 15.

Agenda Item 16: Environmental Effects Subcommittee agenda items for Joint Session, John Sherwell, Effects Chair
Fall NADP meeting information by Program Office and Maggie Kerchner: Ammonia workshop & 25th anniversary for fall NADP meeting. Have draft ammonia agenda now but waiting for Lear's NADP program. Wed. luncheon with speaker. Wed evening reception and large poster session (esp. for ammonia work). Hubbard Brook session. Thurs. Kick off Ammonia Workshop. Ability to quantify ammonia & deposition. Managing ammonia, Netherlands, UK, Germany, Denmark represented. Jim Lynch,--Atm. Environment publication NADP would like a special "Issue" and need 12-20 papers.

Isotope Network–is this a function of NADP? Are special design issues or protocols needed to accommodate this application? Ozone background levels needed. Can the NADP network include passive samplers? Class I areas have air quality issues (visibility). AORVs--Visibility & impact or deposition thresholds. Total nitrogen loads (not just wet deposition) is a long-term goal. Is there a significant contribution of organic

nitrogen? Move towards Total N (wet & dry, multi-species, point measurement—special allocation). Dry deposition work will be funded by MDNR at selected sites. Ammonia passive samplers--trial run at Trap Pond site (agricultural area). Measurement of Total P vs. ortho-phosphate is of interest. Can we do a better job of measuring P? "Mercury in the Nation's Rain" brochure in planning stages. Mercury isopleth maps? ACS Long Term Monitoring session in New York Meeting–September 11th week 2003. How to get feedback from client base as to what analytes/measurements they want? Web format for this?

Agenda Item 17: Network QA Report, Chris Lehmann, NADP QA Manager
New QMP review & structure of NADP operations. Dec. 2002 initial draft prepared and reviewed by Quality Assurance Advisory Group (QAAG). CAL and HAL audit schedules and review. Audit report schedule set as follows: 30-Day for report from review team to the lab, 60-Day for laboratory response report, NOS & DMAS review and approve reports within 30-Days. Follow-up review reports due 1-yr after audit report. Audit check list to be furnished by the QAAG. Data quality objectives reviewed. Review of Statement of Work, QA documentation, QMP, and other documents to ensure consistency. Focus on field as well as lab operations for compliance.
Quality Assurance Plans (QAPs) for NTN, AIRMoN, and MDN; should these be separate or one plan incorporating all three networks. Chris will put together a Draft for the spring 2004 meeting. HAL lab and data audit will be conducted this year and team has been selected. Including data audit is new this year.
Site systems and performance surveys: ATS surveys are used to generate 2-page summaries for each site which will be sent to site operators and supervisors.

Agenda Item 18: Network Siting Criteria Report, Chris Lehmann, NADP QA Manager (Chris gave this report for Gary Stensland). Handout provided. Attachment 18.

Suggested changes to meet QA needs of NADP. Criteria grouped as A, B, C & D.

Issue 1: Must specify if siting criteria is "required" or "optional".

Motion: The ad hoc siting committee moved that the NADP siting criteria be classified either as "rules" or as "guidelines."
Rule=required compliance
Guideline=desired, but not required, compliance
After discussion Bowersox-moved to table; 2nd by Tom Jones
Motion to table passed

The siting committee moved that new sites shall comply completely with all rules or seek exception by majority vote in NOS. This motion was withdrawn.

Issue 2: Upwind/Downwind separation from sources

Motion: The ad hoc siting committee moved that separation requirements for industrial sources and urban areas, outlined in Section 2.3.1 of the NADP/NTN Site Selection and Installation Manual, be changed to remove reference to wind direction. The separation shall be the largest distance indicated.
Bowersox moved to table the motion; 2nd by Nilles
Motion passed

Issue 3: Criteria to Omit

Motion: The ad hoc siting committee moved to omit the following from the NADP Siting Criteria:
(D1) "Beyond 50 km both industrial and urban sources are generally assumed to blend in with the typical characteristics of the region.": (Section 2.3.1)
(D2) "…consideration should be given to alternate sites in the event that the original site is no longer representative of the region."
(D3) "Changes or modification to established or approved sites or to its equipment must be submitted to the Program Coordinator's Office prior to implementation"
(B1-b) "The local road net around the site is of particular concern. Traffic volume and type will largely determine the impact of these types of sources on the site."
After discussion, NOS chair requests the committee rework their suggestions and present recommendations to the committees via email 8 weeks prior to the fall meeting. Committee; Rick Artz, Natalie Latysh, Chris Lehmann, Preston Lewis, Gary Stensland (Chair). New members: Greg Wetherbee, Bob Larson, Chris Lehmann, Preston Lewis, Rick Artz, Gary Stenslend. Email status suggested criteria changes to committees 2 months prior to fall meeting and give them 'heads up' of intent to vote on these. Chris will chair.

Issue 4: Discussion of wording changes. See handout for proposed changes

Issue 5 Roof top sampling Issues

Agenda Item 19: Urban Site Data Utilization in NADP Products and other Data Subcommittee Issues, Bob Larson, DMAS Chair

Siting Criteria manual,---proposes regional representativeness addition to the siting classification numbering scheme already approved.
Discussion
See attachment #19.

Agenda Item 20: Follow-up from CAL NOS Audit. Laboratory MDL and NADP MRL, Chris Lehmann, NADP QA Manager

Laboratory MDL's will be computed annually or more often as needed. MDL=Method Detection Limit
A MRL be 2-3 times this MDL and determined by DMAS. MRL= Method Reporting Limit

MOTION by Bowersox: The network MRL will be established based on a factor of 2 times LTMDL (3 years) determined from laboratory data. Wetherbee amended it to allow the CAL to determine their own MDLs on an annual basis beginning in 2003.
Motion, seconded by Dossett.
Motion passed.

Agenda Item 21: Review of Draft fall agenda, Kathy Douglas, Program Office
Attachment 21.
An overview of the current program for the Fall 2003 meeting was presented**.**

Nilles moved to adjourn at 4:30 pm. Dossett seconded. Passed.