



North American Perspectives

NASA Air Quality Team Meeting
June 18 - 20, 2007

Bi-national Air Quality Work with Canada



- With Canada, the primary vehicle for bi-national cooperation is the U.S.-Canada Air Quality Agreement, enacted in 1991.
 - Acid Rain Annex
 - Scientific Cooperation Annex
 - Ozone Annex
 - Recent agreement to negotiate a Particulate Matter Annex
- Technical work group
- U.S. commitments are derived from the Clean Air Act statute and pursuant regulation on the books.

Bi-national Air Quality Work with Mexico



Border 2012, bi-national environmental planning and implementation effort

- Multi-media, stakeholder driven body
- Forums -- media-specific issues (air, water, waste)
 - Air Policy Forum identifies and resolves related border-wide air quality issues and policies
 - Air Policy Forum also initiates and guides implementation of objectives, strategies and border projects
- Border-wide workgroups – multi-regional, federal issues
- Regional workgroups – foundation of Border 2012
 - Coordinate regional activities
 - Support efforts of local task forces
- Task Forces – local level implementation
 - Addresses regional and community concerns
 - Guides and implements projects

Southwest Consortium for Environmental Research and Policy



- Consists of five American universities and five Mexican universities, all close to the border.
- Assists U.S.- Mexican border peoples and their environments by applying research information, insights, and innovations.
- Integrates multi-disciplinary academic expertise; bi-national, state, tribal, and local policy making; non-governmental organizations; and private industry attention and influence on trans-border issues.
- Has a multi-fold mission of applied research, outreach, education, policy development, and regional capacity building for the communities, our ultimate customers.
- Works closely with the EPA-HHS-SEMARNAT-SALUD IBEP, Border 2012 Program and other multi-national organizations

Tri-lateral Air Quality Work



Commission for Environmental Cooperation

- Complements the environmental provisions of the North American Free Trade Agreement.
- Addresses regional environmental concerns, helps prevent potential trade and environmental conflicts, and promotes effective enforcement of environmental law.
- *North American Air Working Group* develops and guides priorities, strategies and projects to reduce air emissions and thus, protect public health in the three countries.

Specific Related Projects -- Coordinated Among Forums



Projects are coordinated among bi- and tri-lateral efforts, to foster complementary work

- Ambient air monitoring in Mexico
 - Need to expand continuous ambient monitoring capabilities
 - Need to build monitoring networks in Mexico
- Emissions inventory in Mexico, building upon the 2005 inventory, which used 1999 data
 - Need to update modeling and expand and improve data.
 - Need to achieve comparability in methodologies and inventory report intervals among U.S., Mexico and Canada.
- Various cross-border transportation projects

Potential for NASA-EPA Border Collaborations



Emissions Monitoring & Inventories

- Due to lack of widespread monitoring sites, consistent methodologies and fully functional networks, potential to partner on:
 - Characterization of border air quality via satellite observations
 - Emissions trends along borders, using above observations over X number of years
 - Transport of pollutants across borders through aircraft campaigns and modeling

Challenges



- Lack of availability of consistent data
- Inconsistent methodologies
- Lack of widespread availability of sophisticated technologies
- Lack of comparability related to monitoring and inventories
- Lack of individual country funding

Conclusion



- Numerous opportunities for collaboration
- Existing bi- and trilateral forums with which to partner and coordinate NASA and NASA-sponsored research and outcomes.
- Ideas from NASA and Principle Investigators' on potential for project partnering.

Contact:



Sue Stendebach
EPA Office of Air and Radiation
202-564-8309
stendebach.sue@epa.gov