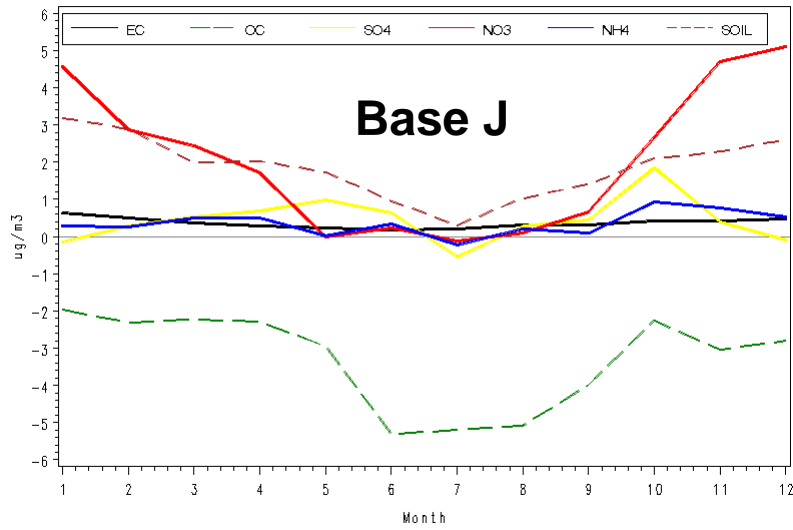


Update for: LADCO Midwest Planning

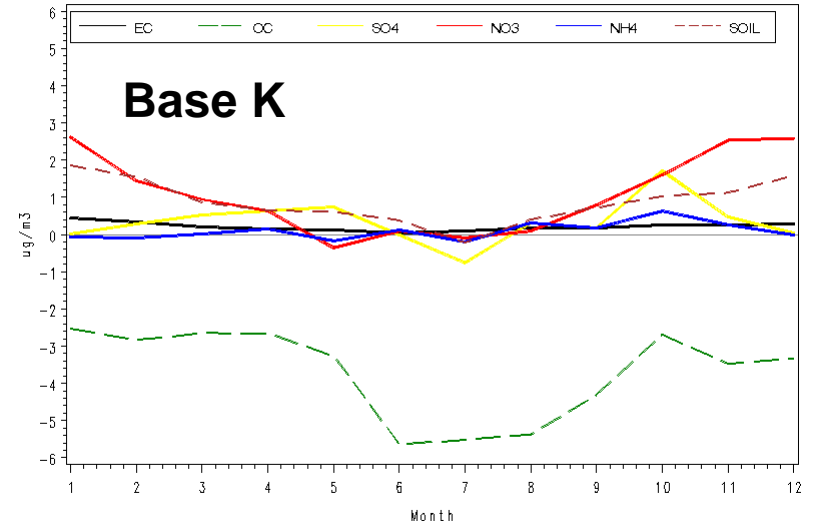
Mark Janssen
Lake Michigan Air Directors Consortium
USEPA 2009 Emission Inventory Conference
Baltimore
Janssen@ladco.org

Monthly Average Mean Bias



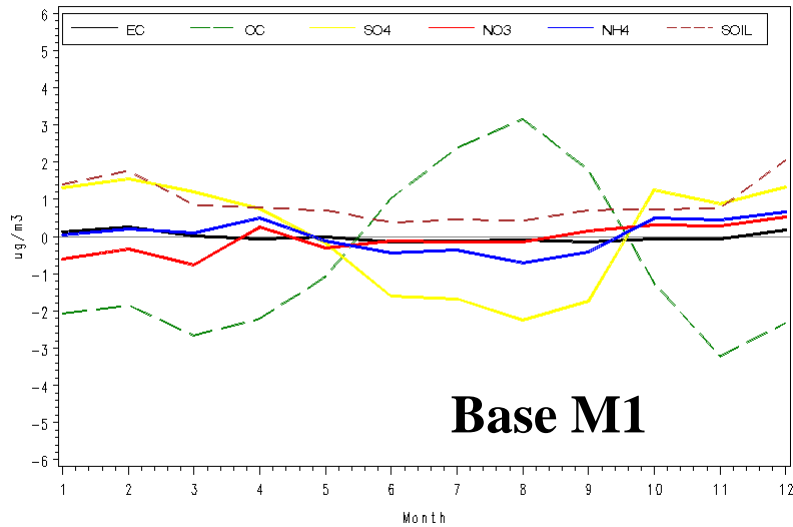
Kirk Baker - LADCO

Monthly Average Mean Bias



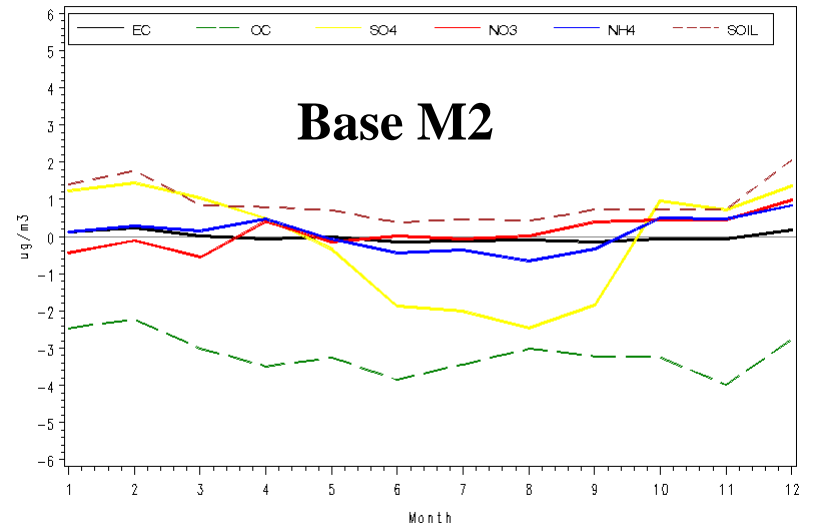
Kirk Baker - LADCO

Monthly Average Mean Bias



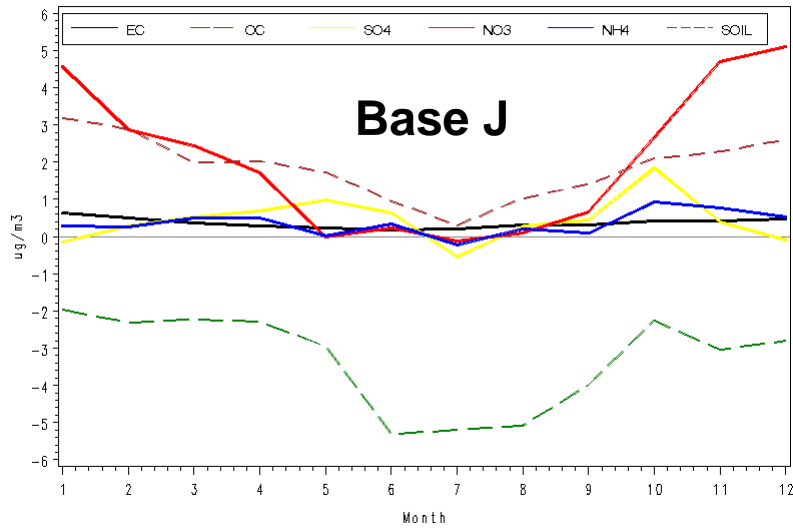
Kirk Baker - LADCO

Monthly Average Mean Bias



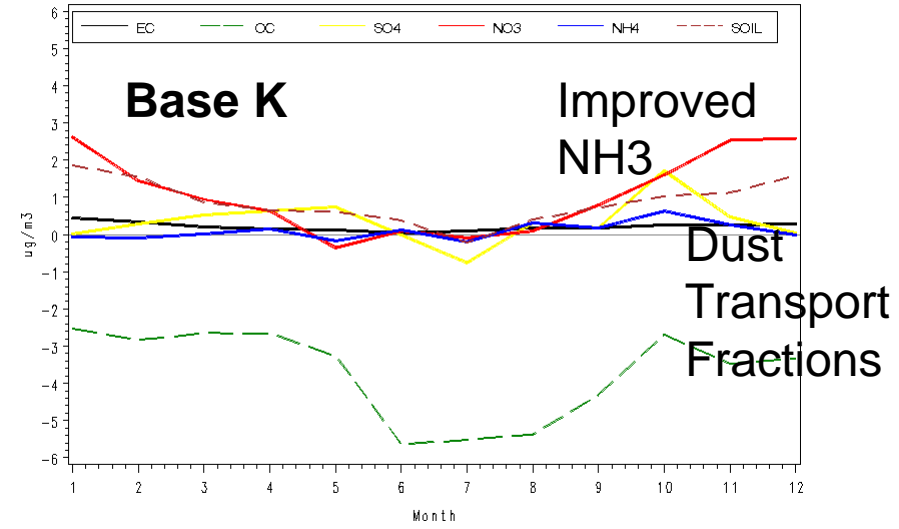
Kirk Baker - LADCO

Monthly Average Mean Bias



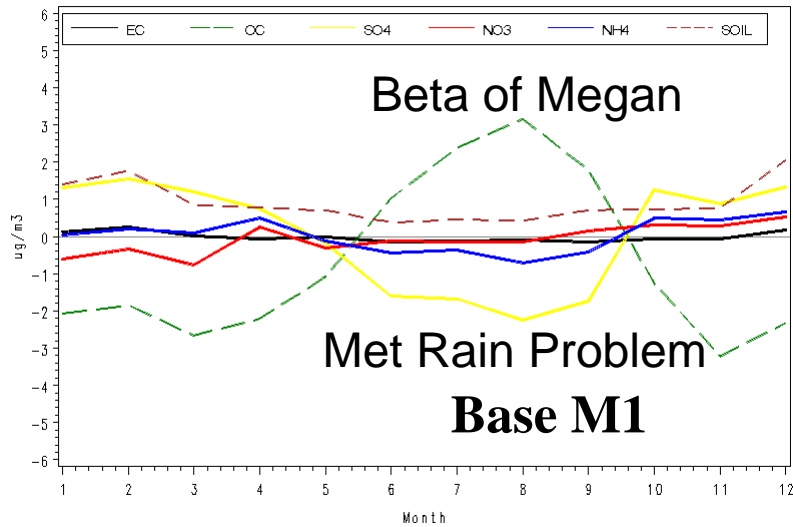
Kirk Baker - LADCO

Monthly Average Mean Bias



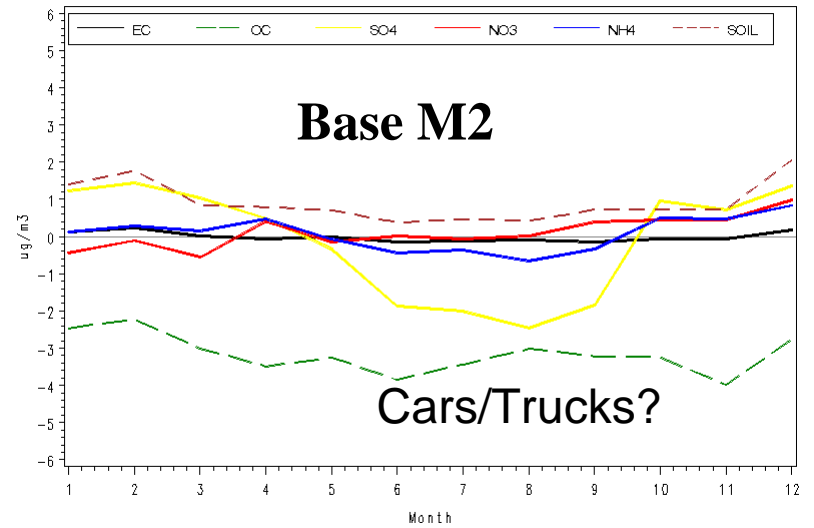
Kirk Baker - LADCO

Monthly Average Mean Bias



Kirk Baker - LADCO

Monthly Average Mean Bias



Kirk Baker - LADCO

What is ERTAC?

- Ad-hoc organization of MJO's and states in eastern U.S.
- Technical organization to fix specific problems and coordinate inventory development
 - Coordinate emissions inventories needed for air quality modeling (e.g., next round of SIPs)
 - Provide a technical- (not policy-) driven process for developing and improving emissions inventories

Goals and Principles

- Achieve technical consensus on preferred data sources and inventory methodologies
- Promote consistency, while respecting state-specific approaches
- Focus on those issues likely to have the biggest impact in air quality modeling

How We Work

- Steering Committee defines goals and schedule
 - MJOs (LADCO, MARAMA, SESARM), States (IL, MI, MO, MD, NY, NJ, GA, NC, LA), EPA (OAQPS)
- Using in-kind resources, workgroups do the work
- Some projects will need money. Hope EPA can help? (Should we reach out to stakeholders – NREL, AAR,?)

Priority ERTAC Projects

- Rail emissions
- Mobile source PM emissions
- Agricultural Ammonia
- Area source comparability

Rail Emissions

(Timeframe: on-going)

- Chair: Michelle Bergin (GA)
- Approach: Focusing on line haul and rail yards for Class I's
- Accomplishments
 - Web site: <http://www.ertacrail.info/erjoomla/>
 - Prepared data collection methodology
 - Contacted rail companies (Class I)
- Schedule: draft inventory by mid-2009



PM_{2.5} (OC) Emissions from Mobile Sources

(Timeframe: fall 2008 – Summer 2009)

- Problem: Current inventories underestimate PM emissions from mobile sources (which results in large model underestimation for PM_{2.5}-OC)
- Approach: Environ/DRI developing MOBILE6 adjustment factors for primary PM-OC and SVOC mobile source emissions based on KC study data (under contract to LADCO, NREL, and MARAMA)
- Schedule:
 - December: provide draft methodology
 - January: provide draft factors
 - Feb-May: modeling with adjusted inventory (Detroit, NYC)
 - May-July: final report

Area Source Comparability

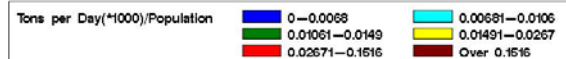
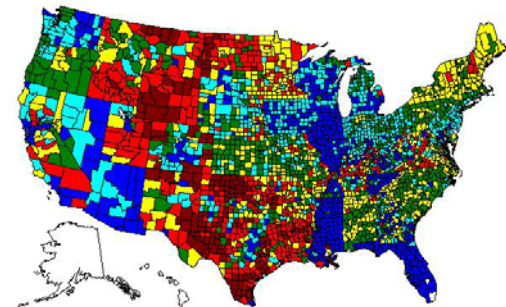
(Timeframe: fall 2008 – spring 2009)

- Goal: Work with states to define complete inventory for area sources
- Approach: Determine default methodologies with emission rates and surrogates
- Process: Near Completion: www.ertac.us for spreadsheet.

Area Source County Population Density Emissions : NOX

File Used For Emissions Summary: ems_run.areaemis

Population from 1990 United States Census.

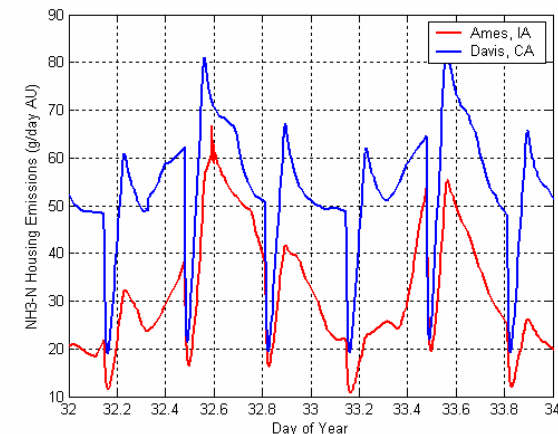


County emissions on edge of domain reflect only the area within Domain. Population for whole county used in all cases. Canada and offshore emissions are not shown.

Agricultural Ammonia

(Timeframe: Mid 2009)

- Improve UC–Davis process-based emissions model
 - Developed in 2005 by ISSRC/Environ with RPO funding
- Improvements include...
 - Newer science and 2007 Census of Ag data
- Remaining shortcomings...
 - Lots of national defaults. but not much local data
- To do...
 - Need to identify variables model is most sensitive to
 - Compare model results to measurement studies



Other ERTAC Projects

- EGU temporalization based on CEM data
- EGU growth methodologies(July 2009?)
- Commercial marine
- Canadian emissions (2005/2008)
- Wildfires and prescribed burns (eastern U.S.)
- Agricultural equipment (population/temporal)

Future of Regional planning

- 2007/2008 inventory development
- 2007 Met Cooperation
- Regional Modeling Issues
 - Single State Filibuster
 - Issue Amplification
 - Solution: Benevolent Despots or Longer Timelines?