Gridded Meteorological Data: Next Steps

Dennis Atkinson*
NOAA, Applied Modeling Branch
*in partnership with US EPA, OAQPS
Research Triangle Park, NC

Outline

- Gridded Meteorological Data Workgroup
- Roadmap of Issues
- Actions
- Future Decisions

Gridded Met. Data Workgroup

- Re-formed recently – small group of informed members; Federal, Regional, or State affiliations
- Charter – To provide sound scientific advice and technical direction to OAQPS with respect to issues on the use and implementation of gridded meteorological data for air dispersion modeling.

Gridded Met. Data Workgroup

- Members

  - Dennis Atkinson, OAQPS
  - Bret Anderson, R-7 (detailed to FWS)
  - Al Cimorelli, R-3
  - Herman Wong, R-10
  - Clint Bowman, WA AQP
  - Tim Plander, FL DEP
  - Steve Weber, ND DAQ
  - Tim Allen, FWS

Gridded Met. Data Workgroup

- Review of draft plan for the MM5 to AERMOD Tool
- Technical think-tank for complex issues related to implementation of gridded met.
- Provide a roadmap for direction

Roadmap of Issues

1. Education and self-education of Regional Offices
   - provide flow of information to Regions and establish conference calls

2. Technical evaluations needed to make informed decisions and/or guidance on
   - grid sizes
   - multiple grid domains
   - use of NWS and gridded data together
   - appropriateness in the use of gridded data – some local-scale phenomenon may still require on-site, etc.

Roadmap of Issues

3. MM5-AERMOD tool
   1. 1st phase – reformats MM5 data for use into AERMOD
   2. 2nd phase – utilize additional parameters within MM5 data into AERMOD; will require science code changes to AERMOD (TKE, etc.)

4. Use of MM5-AERMOD tool for evaluation purposes
   - analyze the tool for precise changes that occur due to use of gridded data vs. NWS, etc.

Roadmap of Issues

5. Single AERMOD-CALPUFF gridded met. processor?
   - if both CALMET and AERMET use gridded met. data, they should both be processing data the same way?

6. Official authorization (via Appendix W) of gridded met. for local-scale dispersion modeling

Actions