

**Midwest RPO Update:  
Air Quality and Meteorological Modeling**

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# The Last 12 Months

- Ran CMAQ, REMSAD, and CAMx4 for a summer and winter episode
- 36 and 12 km simulation for summer episode with CAMx4
- 36/12 and 4 km flexi-nests for summer 2001 episode with CAMx4
- Initial wet deposition analysis
- Aircraft measurement comparisons for summer episode (just O<sub>3</sub>, NO, and NO<sub>2</sub>)
- Ran MM5 for 2002 at 36 km

# The Last 12 Months

- Model performance: identification of model deficiencies and inventory issues
- Sensitivity runs for summer 2001 episode to assist in understanding model performance problems
- Ran preliminary sensitivity runs at 36 km for summer and winter episode—technology transfer to States and cooperating organizations
- Ran CAMx4 for 2002 at 36 km with 1999 anthropogenic emissions

# The Next 12 Months

- Monthly model performance analysis for 2002 CAMx4 simulation
- Larger-scale wet deposition analysis
- Sensitivity run project: 36 and 12km global and geographic emission reductions
- Implement new science into CAMx4: PSAT and aerosol PIG

# The Next 12 Months

- Begin statistical analysis of model output
- **Initial regulatory basecase modeling**
- Alternative annual simulations (annual sensitivity runs)
- Evaluate 2002 output against special studies and operational Super Sites
- **Continue to re-run the core episodes as emissions inventory/modeling improves**