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Topics

- OAQPS current/traditional role
- Retrospective look at 2008 Data Summit
- Current OAQPS thoughts on emerging role in a more connected community
Basics: OAQPS Place in the Air Quality World

- Ambient air data, emissions and models are used to:
  - Establish National Air Quality Standards (O3, PM, Pb, NO2, CO, SO2)
    - And define area’s compliance status
  - Support development of emission strategies to meet NAAQS through (1) National rules targeting energy generation and mobile sources and (2) supporting State Implementation Plans (SIPs)
  - Develop source based emission reduction targets for Hazardous Air Pollutants (HAPs)
  - Regional haze and secondary welfare standards (ecosystem impacts)
OAQPS traditional role

- Data receiver from States
  - NEI
  - AQS
- Systems not initially designed for access or interoperability
- AIRNOW/AIRNOW tech, AQS DataMart facilitate access
What was the 2008 data summit about? – OAQPS view

- GEOSS/GEO and related DataFed attractive concepts but not utilized
- VIEWS provided data processing and visualization features that are used
- Internally, lack of integrated analysis systems
- Idea of blending the best of VIEWS and DataFed and Airnow tech
- Followed the data summit with
  - Community system enhancements leveraging NASA-ROSES-VIEWS
    - Enhance VIEWS with gaseous ozone data (hourly)
    - CMAS as public interface for CMAQ outputs and meta data
  - Assessment of EPA (and related) systems (Sweeney/Mintz..later)
Current OAPQS thoughts and activities

- Building off of the Data Summit, (mid-2008-2009)
  - Focus on internal systems, to
    - Improve internal interoperability and efficiency
    - Reinforce community role in system of systems
- Internal Assessment
- OAQPS Data Strategy
What User Needs is OAQPS focused on?

- Reducing data handling and synthesis burden of analysts
- Integrating observations, model estimates to address 5D gaps
- Improving data extraction and visualization capabilities
Services desired

- Access, extraction (5D), visualization to CMAQ results
- Access, extraction, visualization to satellite NO2, AOD, HCHO – CMAQ grid dimensions
- Ability to manipulate surface based observations (AQS, IMPROVE, CASTNET) with emissions, CMAQ results, satellite data, selected demographics data on compatible 5d framework
Infrastructure

- Meaning and desire?
  - Transparent access, extraction, manipulation and visualization of information borne of different attributes

- Impediments?
  - Lack of friendly interface and/or
  - Multiple interfaces required for each data set
  - Basic understanding and meta-data
    - Including QA/QC
  - Spatial incommensurabilities
    - e.g., Conversion across CMAQ 12, 36 km space with specific long/lat points, and demographic boundaries (State, county, MSA, census track/block)