

# Objectives of This Workshop

- **Monday – Tuesday**
  - Review the state of science regarding air pollution transport across North America and the Northern Hemisphere
  - Primarily to inform the NAS/NRC Study
  - Taking stock of the work of the TF HTAP and other cooperative efforts
- **Wednesday – Friday**
  - Plan future cooperative analyses under the TF HTAP and AC&C

# TF HTAP and AC&C

- 2 Cooperative Analysis Efforts
- Different Target Audiences:
  - TF HTAP: Assessment Report by June 2010
  - AC&C: IPCC AR5
- Similar Timelines
- Many of the Same Participants
- Same and Related Scientific Questions
- Opportunities to Leverage Resources and Existing Infrastructure and Approaches

# Topics for Discussion

## **Common Analysis Areas**

- Hindcast (AC&C 1)
- Process and Tracer Studies (AC&C 2, HTAP TP)
- Future Scenarios (AC&C 4, HTAP)
- Event Simulation & Intensive Campaigns (HTAP ES)
- Impacts on Air Quality (HTAP SR, ...)

## **Common Needs**

- Observational Databases (NILU, NASA, IGAC Asia, ...)
- Emissions Inventories and Projections
- Modeling Data Servers (Juelich, AEROCOM, ...)
- Collaboration Tools (HTAP Wiki, Listservers)
- Analysis and Processing Tools

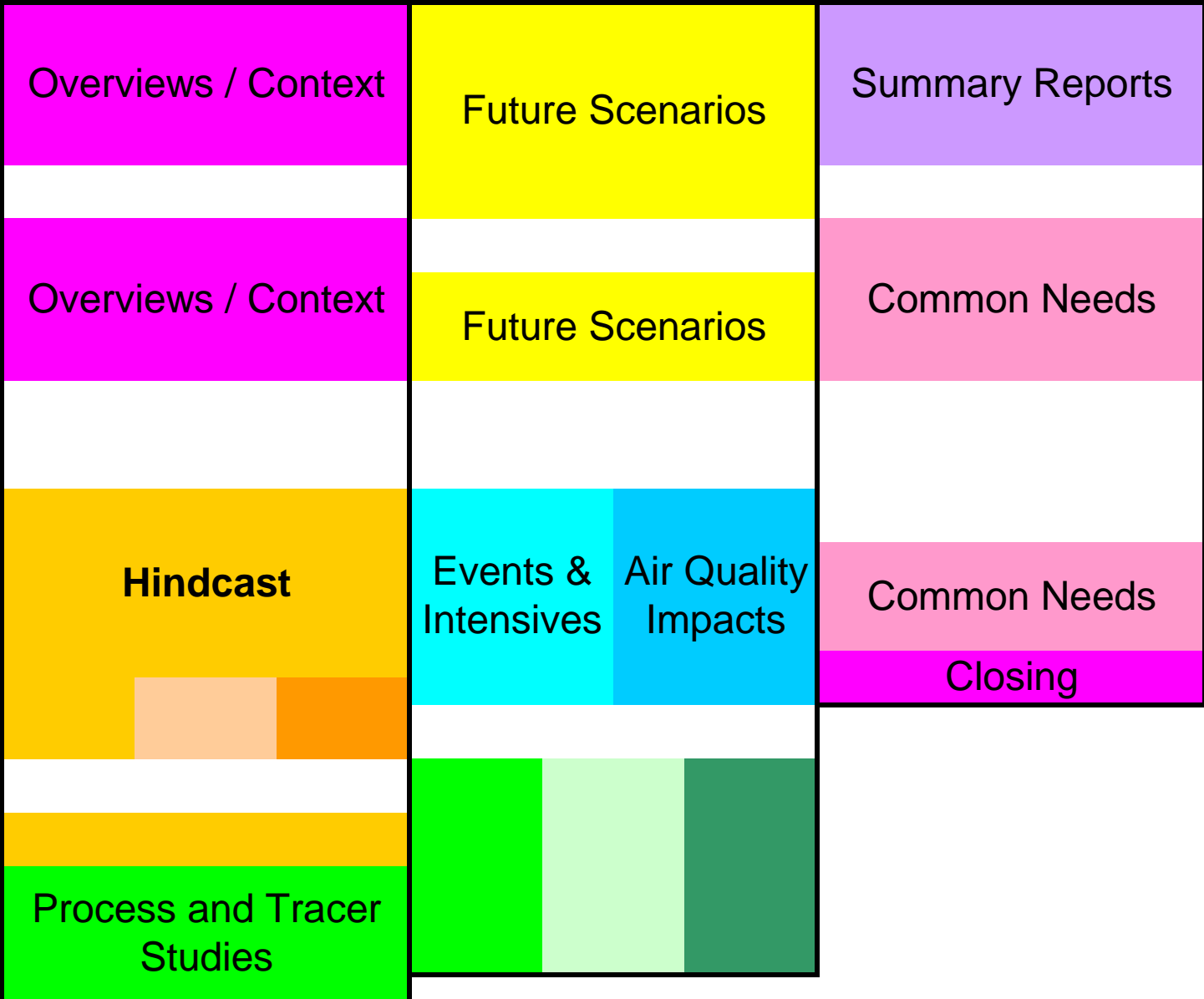
**Time**

**Wednesday**

**Thursday**

**Friday**

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# Questions for Each Session

- What specific science questions are we trying to address?
- Can we use existing (HTAP, ...) simulations?
- What new simulations/outputs/analyses are needed?
- What observations and emissions data will be needed?
- Are current infrastructure and tools sufficient?
- What are the next steps and critical milestones? By when?
- Who is going to take the lead?
  - Step 1: Circulate detailed experiment/activity descriptions, desired output, ....
  - Other roles: Preparing inputs, processing outputs, performing analyses.

**By Friday morning, we need a plan.**

# Some Policy Relevant Issues for *HTAP 2010*

- “Triangulate” spatial/temporal patterns of transport and apportionment of observed concentrations/deposition
- What are the observed trends in transport and can we explain them?
- Express S/R in terms of Air Quality Objectives (and Health, Ecosystem, Agriculture, Climate Impacts, Local Control)
- Characterize Interannual Variability in S/R Relationships
- Identify Contributions of Specific Source Categories
  - e.g., shipping and aviation, dust, biomass burning
- Characterize Sub-Continental S/R. Which receptor areas are impacted more? Which source regions are more influential? Link to regional modeling, divide regions.
- Characterize Tropical and Sub-Tropical Transport Boundaries
- How Different Might the Future Be? What is the Potential for Control?
- Describe Uncertainty and Confidence Levels in a Consistent Manner
  - especially across O<sub>3</sub>, aerosol, Hg, POPs
  - Across emissions, observations, transport and transformation processes