

# Chap 1. Conceptual Overview

- Introduce the major concepts that will be needed in the rest of the report
  - Including Source/Receptor Relationships, Source Attribution
- Describe the meteorological, physical, chemical, and biological processes that drive intercontinental transport.
- Briefly describe the emission sources and impacts.
- Briefly describe how changes in emissions and climate may change intercontinental transport.
- Set up the main story lines.

# Chap 2. Observations

- Review different sources of observational evidence (surface sites, aircraft, satellites, sondes, passive monitors, other media, ...)
- Transport events v. baseline concentrations, averaging times relevant to impacts
- Source attribution or transport fluxes based on analysis of observations
- What do trends tell us about the future? Or effectiveness of pollution control?
- Describe impacts on specific regions or types of locations (Arctic, high altitude sites, ...)
- Set up issues addressed in Modeling (Chap 4) and Impacts (Chap 5).

# Chap 3. Emissions

- Describe emissions sources, their spatial distribution, and past trends
  - Differences in available inventories
- Describe future projections and availability of controls and their relative costs
- Describe use of observations and models to improve emissions estimates
- Connect emission information to modeling analyses presented in Chapter 4.

# Chap 4. Modeling

- Describe model estimates of the magnitude of intercontinental transport and source/receptor relationships.
  - Impacts on specific regions
  - Metrics relevant for assessing impacts (in Chapter 5)
- Describe how transport will change with changes in climate and emissions.
- Describe the level of confidence we have in model estimates, based on multi-model experiments.
  - Differences between global and regional models?
- Discuss appropriate scales and methods to assess intercontinental transport.

# Chap 5. Impacts

- Put estimates of source/receptor relationships into the context of their impacts on:
  - Achievement of Ambient Standards
  - Human Health
  - Ecosystem Damage
  - Climate Forcing and other impacts
- What does “small but significant” mean?

# Some Big Issues

- Does the meaning of intercontinental transport differ for different pollutants?
- Does S/R mean the same for different pollutants? What metrics make sense?
- How do we characterize the relative significance? “Small but significant”
- How far can we go in estimating health and other impacts?
- How will transport change in the future?
- How do we best communicate the findings? Through figures and tables?