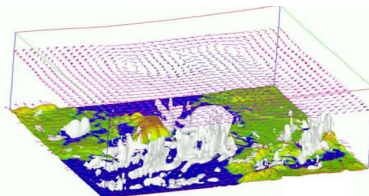


Introduction and Overview of Course

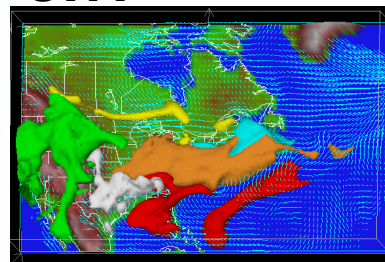


Air Quality Modeling: Improving Predictions of Air Quality (analysis and forecasting perspectives)

Met model

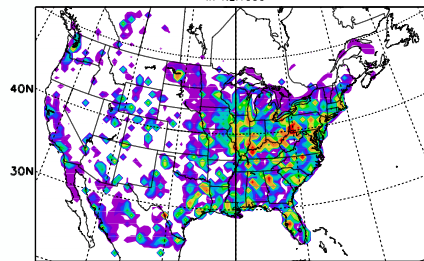


CTM

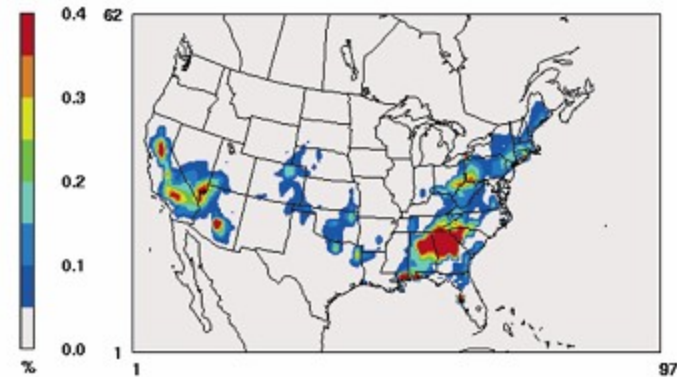


Emissions

Mean SO2 Emission for Typical Summer day (10¹⁰ Molecules/cm²/s) in NEI1999

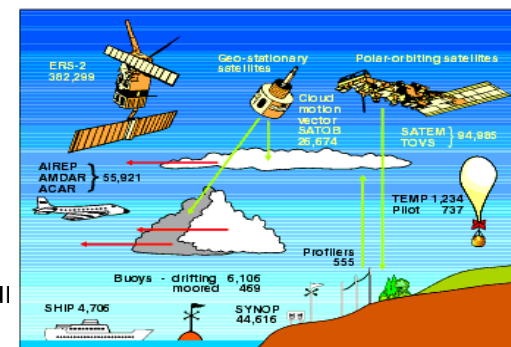


Predicted Quantity: e.g., *ozone AQ violation*

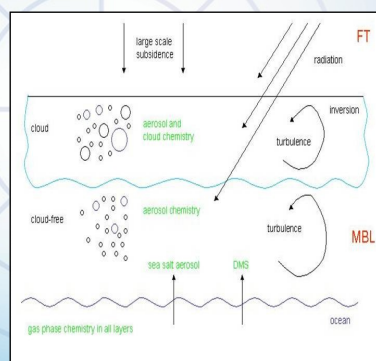


How confident are we in the models & predictions?

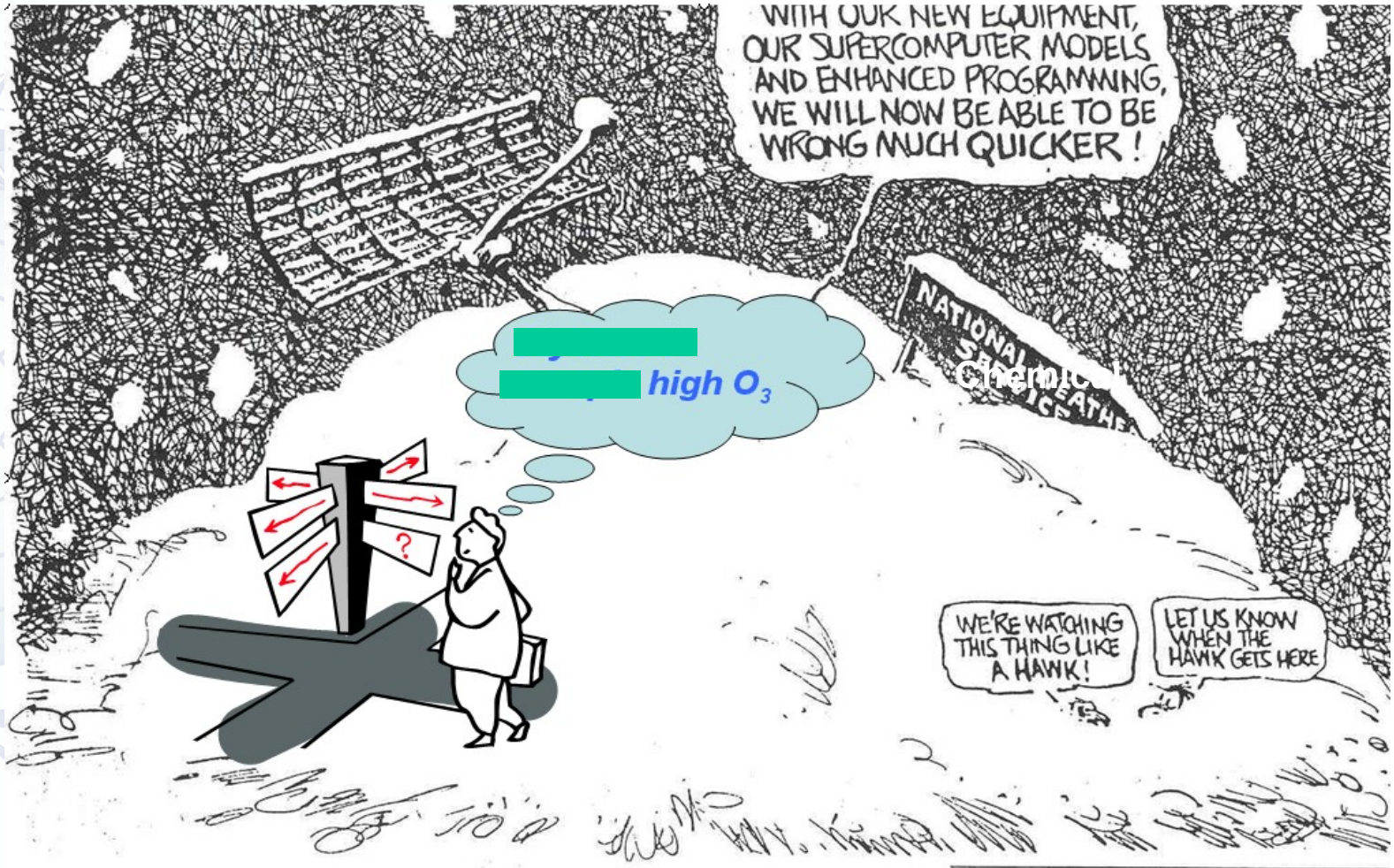
Observations



Chemical, Aerosol, Removal modules



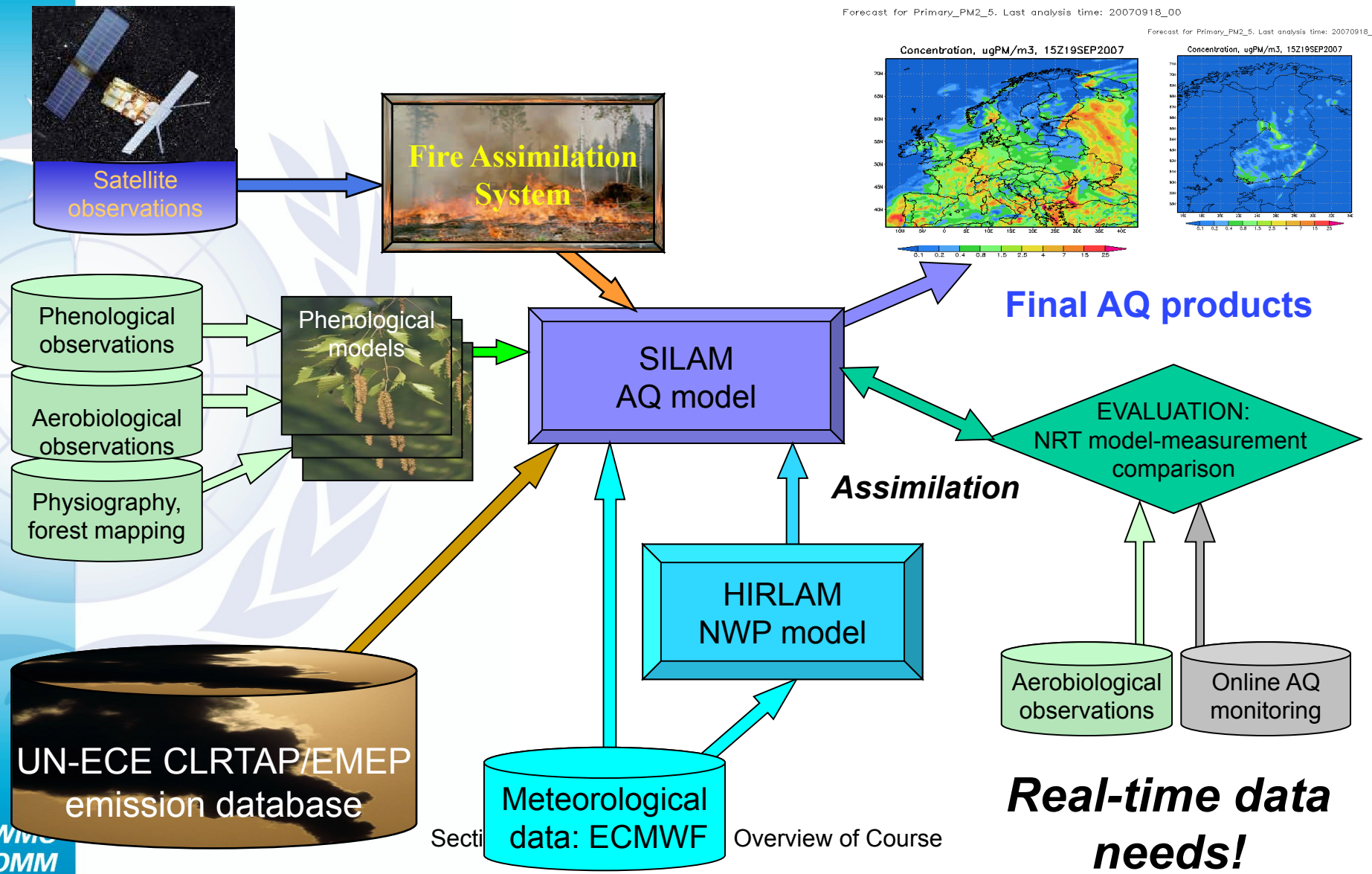
Air Quality Forecasting



PAT OLPHANT/UNIVERSAL PRESS SYNDICAT

AQ Modeling Is A System

Many Meteorological Services Already Supply Operational Chemical Weather Products (e.g., FMI)



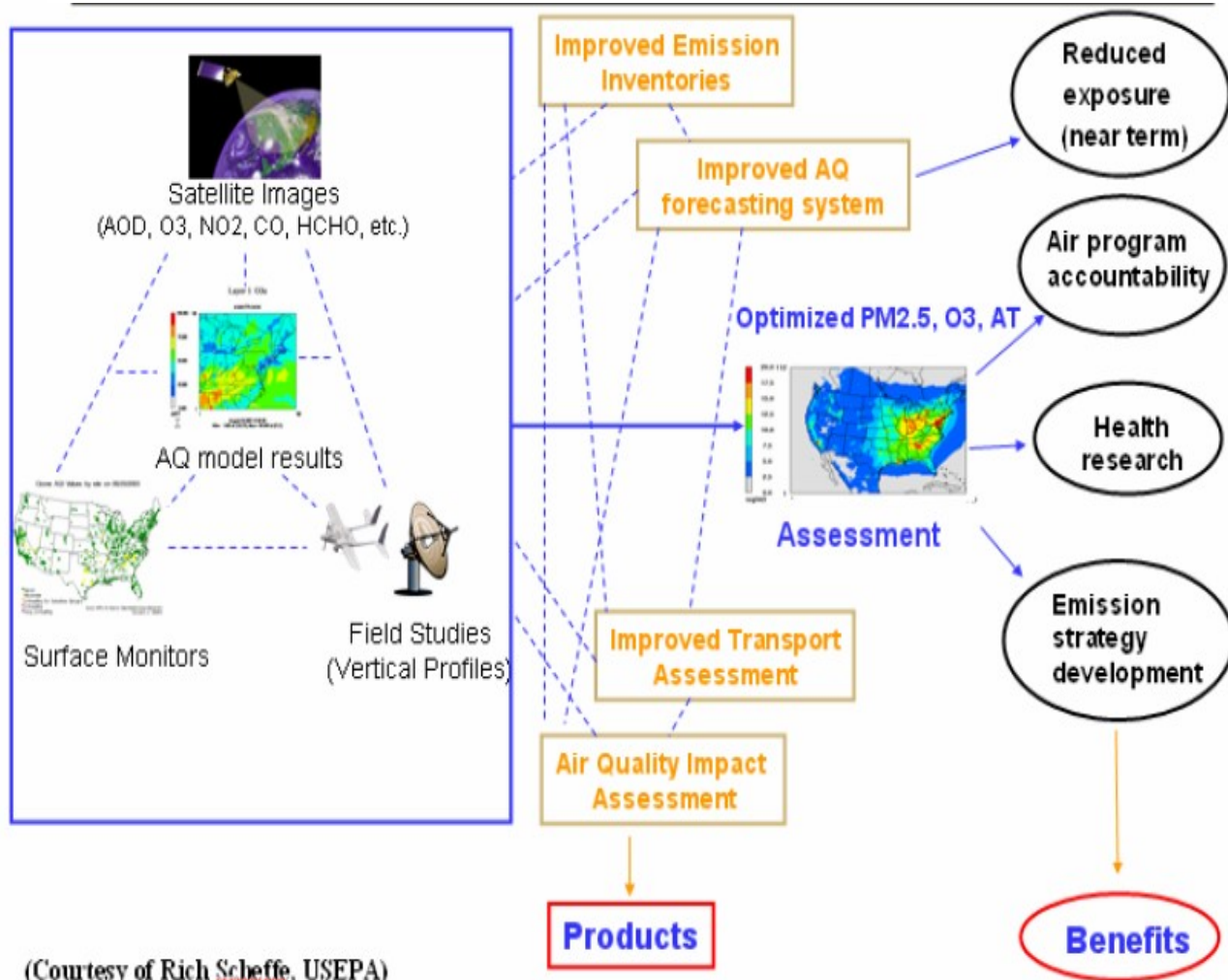
Audience for Course

- Decision makers
 - Overview of air quality analysis & forecasting
 - Uses of air quality models and general steps to develop/improve an air quality modeling program
- Meteorologists and forecasters
 - Overview of air quality emissions and chemistry
 - Discussion of tools used to forecast air quality
- Air quality scientists
 - Introduction to various tools and techniques in air quality analysis

Day-by-Day Guide

- Monday
 - AQ fundamentals
- Tuesday
 - Meteorological Modeling – WRF
- Wednesday
 - WRF/Chem
- Thursday
 - WRF/Chem
- Friday -applications
 - Forecasting, evaluation, impacts, management

Summary of Course – Introduction to Air Quality Modeling



(Courtesy of Rich Scheffe, USEPA)

