

CalNex 2010 and Other Major Field Studies in California in 2010



July 23, 2009

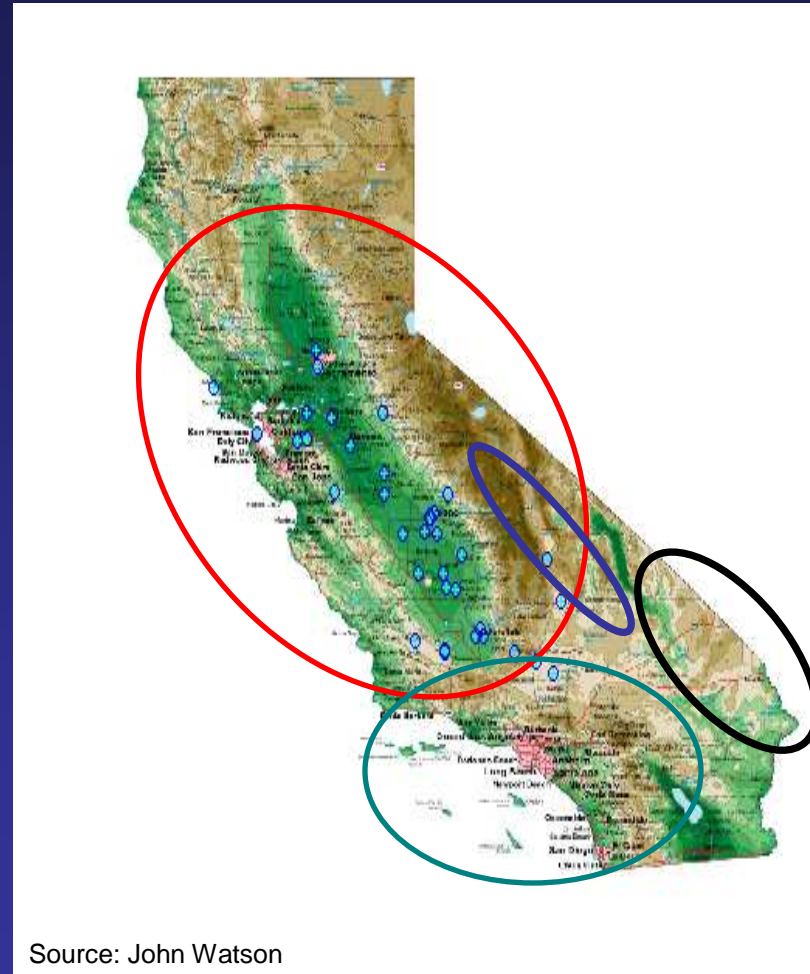
Air Resources Board

California Environmental Protection Agency



Air Quality Field Studies in California

- Field studies guide our regulatory program
- Improve understanding of sources & processes that form pollution
- Improvements to inventory and more sophisticated AQ models require additional data
- New focus on GHG & climate science



CalNex 2010

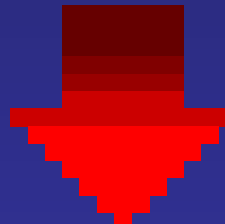
“Research at the Nexus of Air Quality and Climate”

- Some species affect both air quality and climate
- Measurements not previously possible
- Address the entire State and over the Pacific
- Answer foundational science issues
- \$15 million effort by NOAA



CalNex Science Topics

- Emissions of greenhouse gases, ozone and PM precursors, both natural and anthropogenic.
- Improve understanding of chemical transformation and climate processes occurring in multiple air basins in California and over the ocean.
- Improve our ability to characterize and model air flow in California.



Improved air quality models
More effective regulations

NOAA – Scientists experienced in collecting sophisticated measurements on diverse platforms

NOAA P-3



NOAA Ron Brown



NOAA Twin Otter



CIRPAS Twin Otter



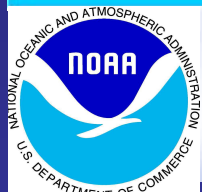
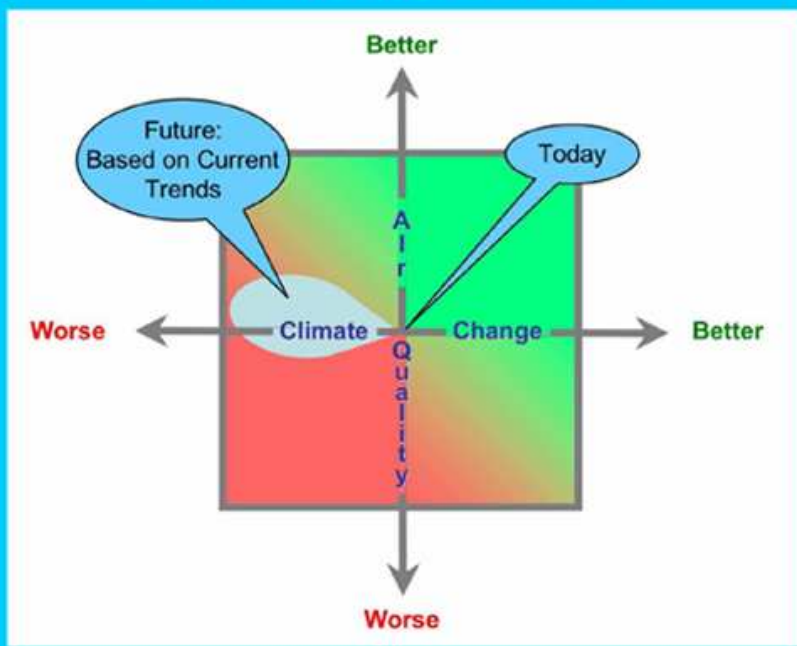
California's Contributions

- Los Angeles Supersite:
 - Focus on Organic PM and Nocturnal Chemistry
 - Significant support by SCAQMD and NOAA
- San Joaquin Valley Supersite:
 - Focus on Multi-day Chemistry for PM and Ozone
- Sulfur in SoCAB:
 - Marine and Terrestrial Emissions
 - Sulfur Chemistry and Transport
- Methane Monitoring:
 - Multiyear effort to measure CH_4 throughout the state
 - Coordinate with CalNex monitoring in 2010



CalNex 2010

Science to Support Decisions



Air Resources Board

CALWATER

*A Field Experiment Addressing
Key Uncertainties in Climate Projections
of Water Resources for California*

Dr. F. Martin Ralph

NOAA/OAR/ Earth System Research Laboratory

9 September 2008

California Energy Commission (CEC) Climate Change Conference
Sacramento, California

Carbonaceous Aerosol and Radiative Effects Study

