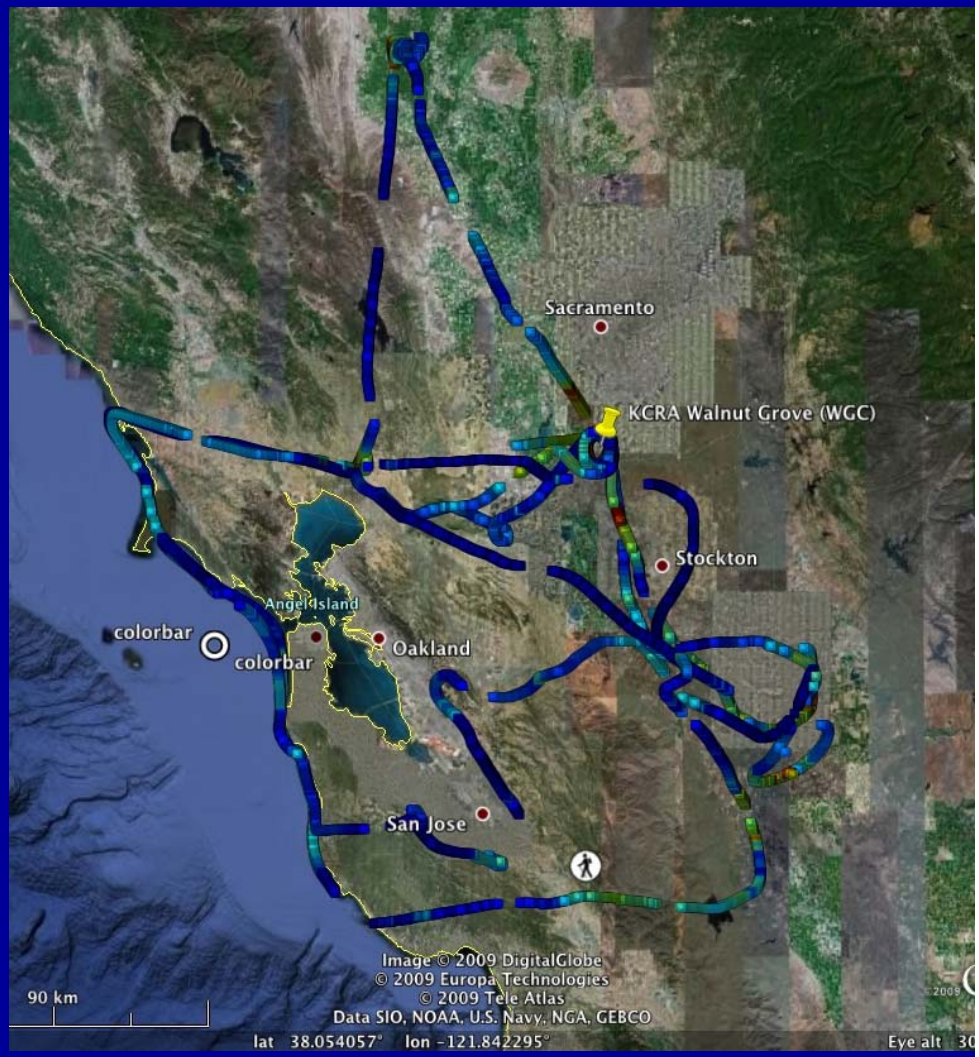
LBNL-NOAA-UCD GHG Measurements in Central California during ARCTAS

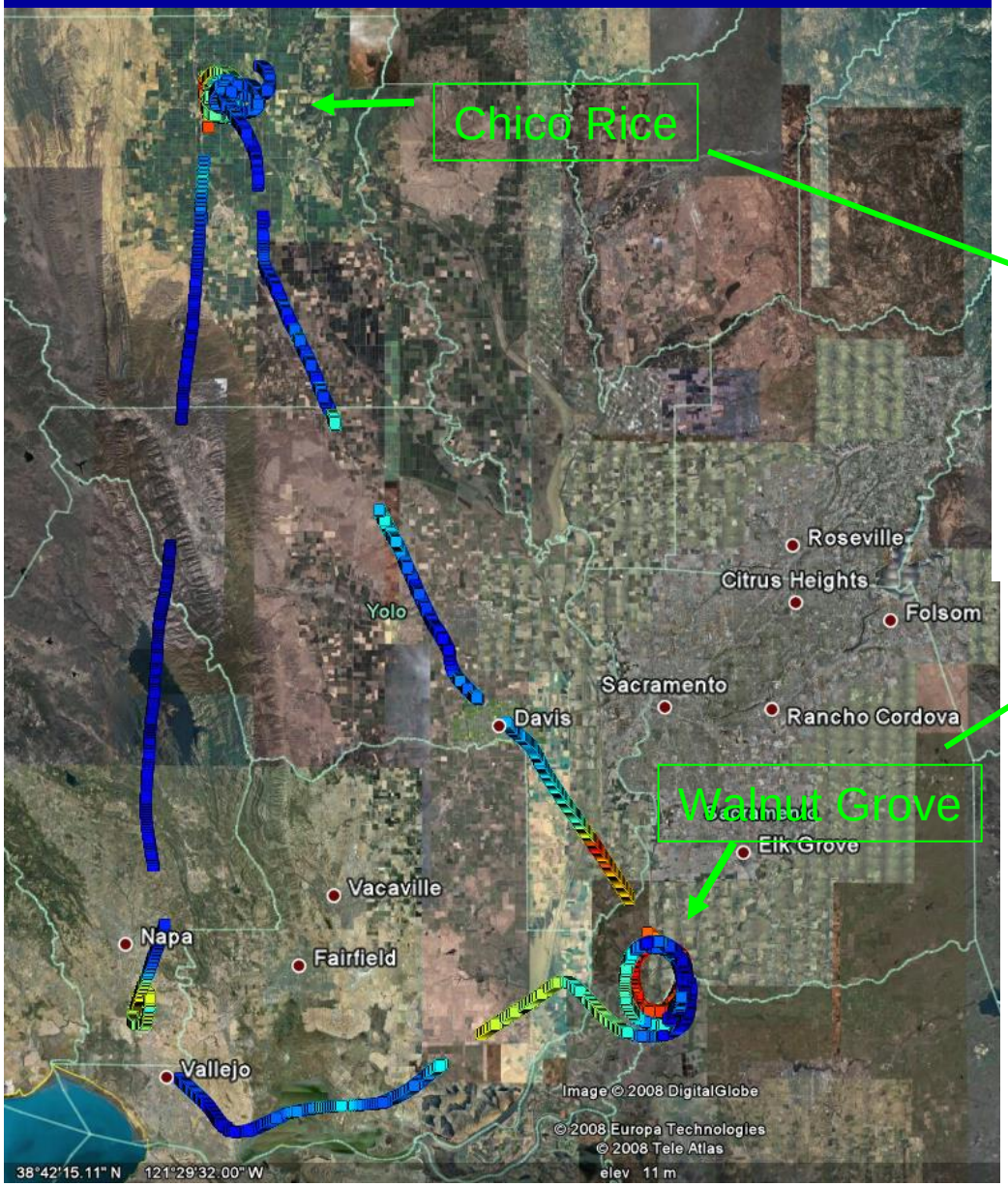
- Walnut Grove Tower (CALGEM)
  - Continuous CO_2, CH_4, CO
  - Twice daily flasks (multi-species)
  - Also: hourly average canisters (UCI, Blake) analysis as for DC-8
- Airborne GHG Sampling (AGES)
  - Continuous CO_2, CH_4, CO
  - Flask Sampling (multi-species)
  - Also: spring, 2009: $^{14}CO2$

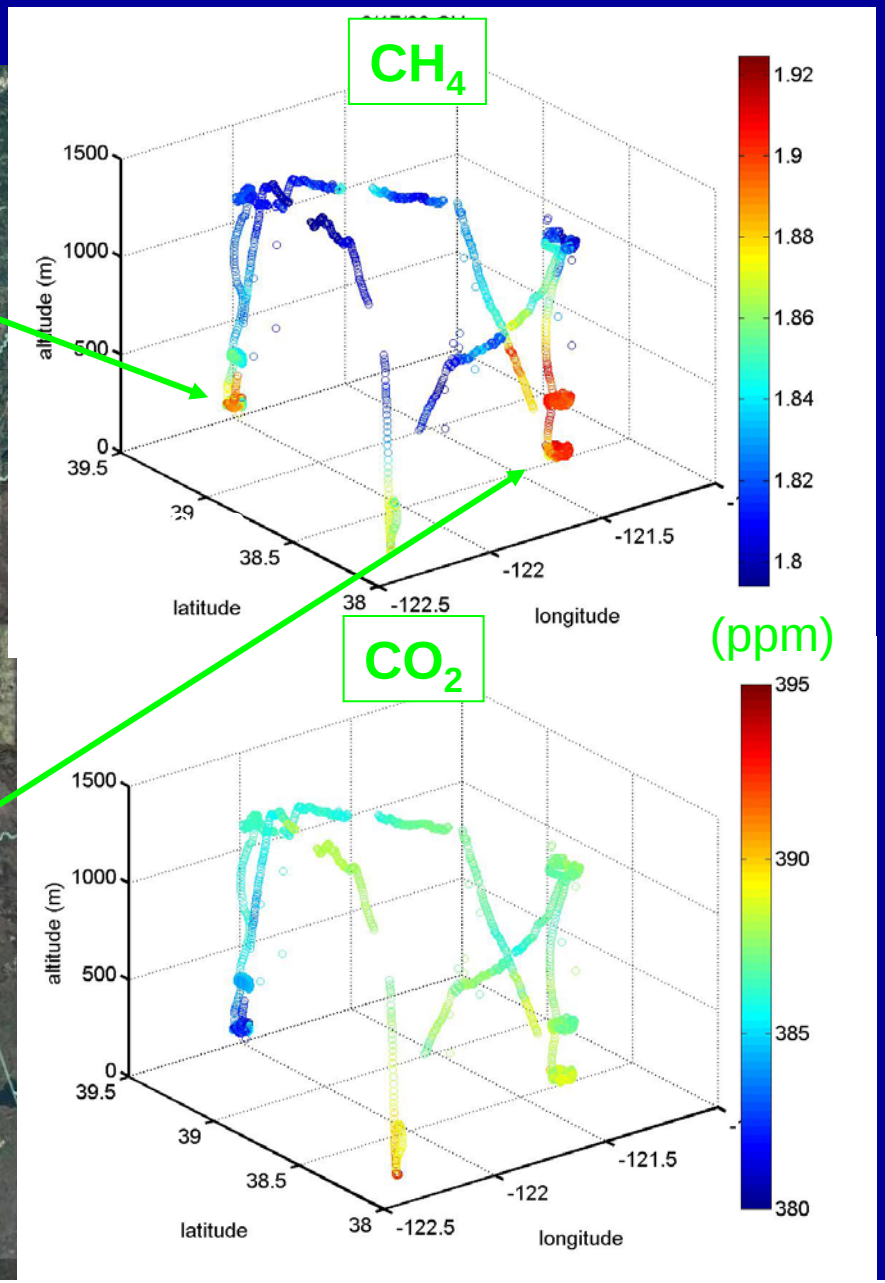
Composite Flight Track CH_4, 20080617-22



MLFischer@lbl.gov

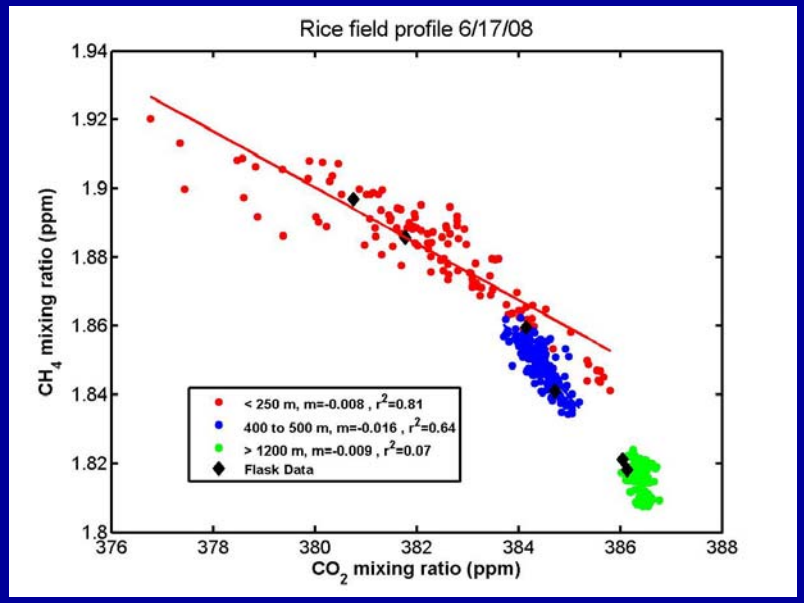
CH_4, CO_2 over Rice (got sauce?) and Walnut Grove

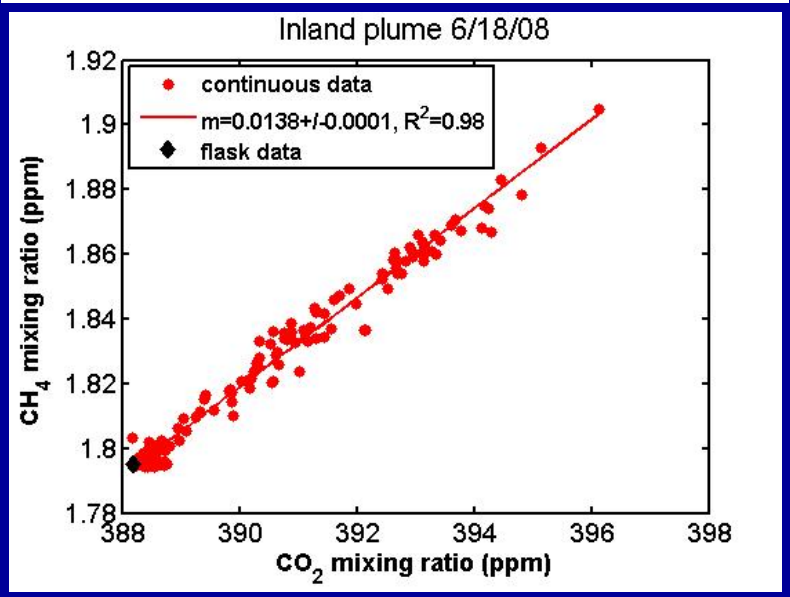




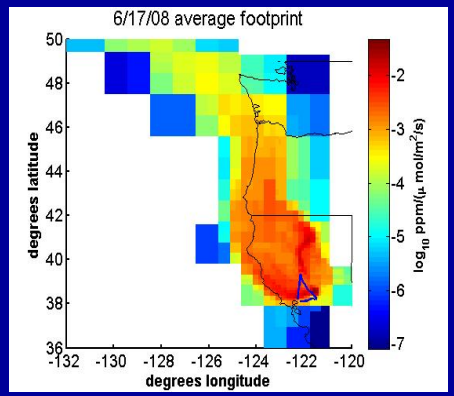
CH_4/ CO_2 Correlations

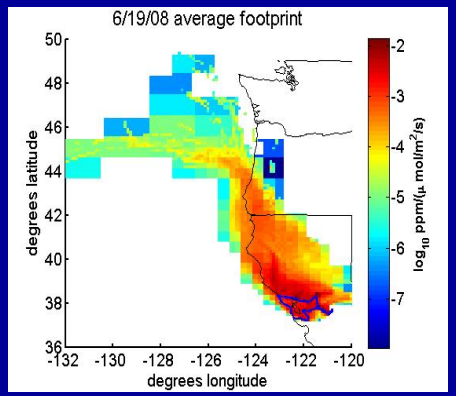
- Rice fields 20070617
  - Negative CH_4:CO_2 correlation
  - CH_4 Release and CO_2 (photosynthetic) uptake
- Urban Plumes 20080618-19
  - Positive CH_4:CO_2 correlation
  - Urban sources for both species





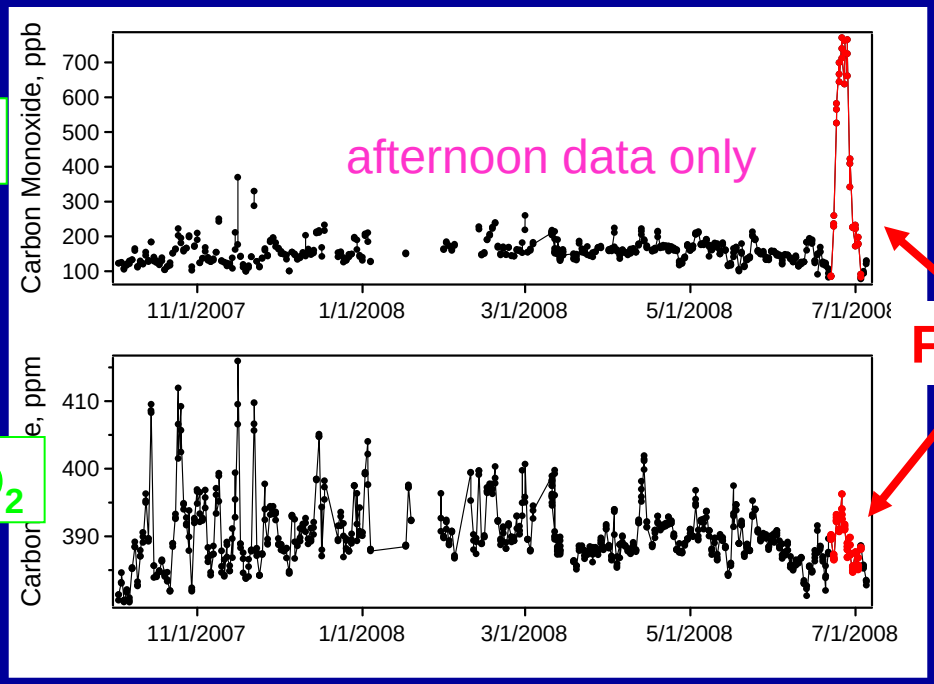
WRF-STILT Footprints



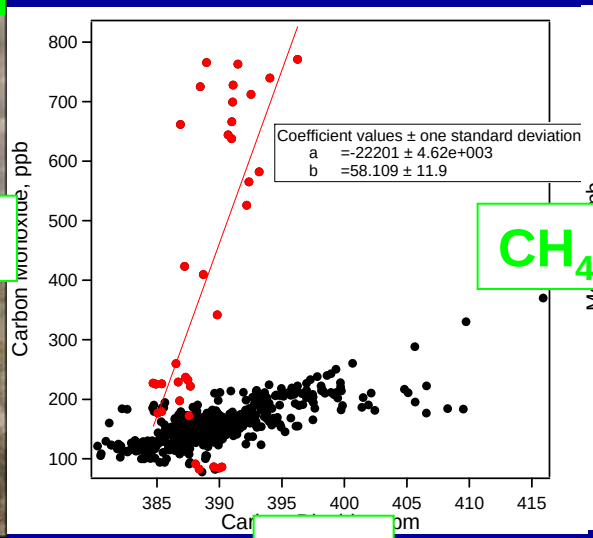


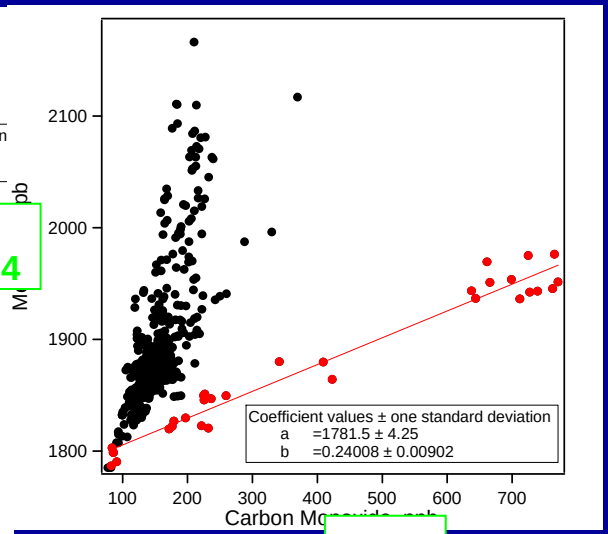
(plots: Anna Karion)

Fire Plumes at Walnut Grove, 2008



MODIS Image 6-27-2008





CO2 (plots: Arlyn Andrews) CO