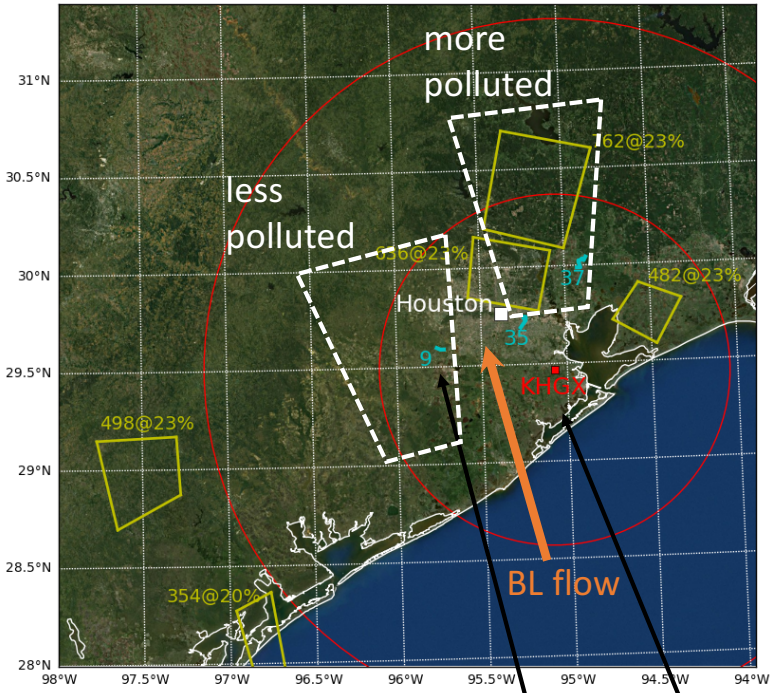
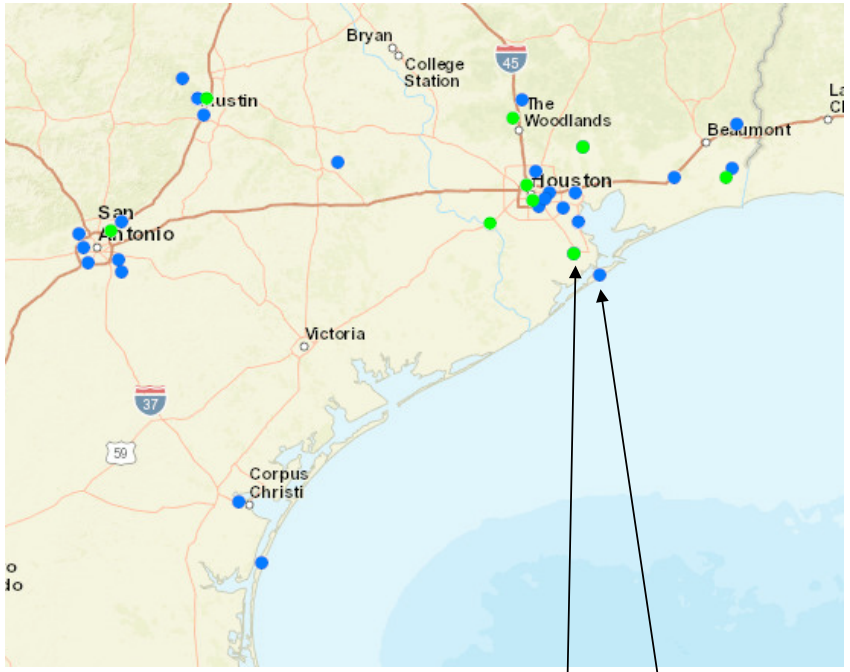
- Aerosol-Clouds-Precipitation-Climate initiative of iLEAPS
  - co-chaired by Johannes Quaas and Danny Rosenfeld
  - http://vandenheever.atmos.colostate.edu/ACPC
- Field campaign concept: study aerosol effects on deep convection (dynamical and microphysical)
  - target isolated updraft evolution in the Houston region
    - aerosol perturbation exists under onshore flow conditions
    - isolated convection relatively susceptible to aerosol effects
  - regional modeling comparison study (using estimated aerosol perturbation)
    - currently five modeling groups participating (European and US)
  - proposed observing strategy
    - (1) track updrafts using multi-wavelength scanning polarimetric radar network
    - (2) deploy surface aerosol observing stations
      - *required*: two CCN stations (one downwind of Houston, one "clean" site to southwest)
      - *desirable*: four stations, CN, PSD, hygroscopicity, INP, profiles

Example: June 8, 2013

Van Lier-Walqui et al., to be submitted to ACPD



https://gisweb.tceq.texas.gov/geotam3



NEXRAD radar (red)

example tracked updrafts (cyan)

existing PM2.5 (blue)

existing CO (green)

Seeking: ASR collaborators to develop aerosol surface observation strategy

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