Alexis Berg, updates

Publications:

Based on GLACE-CMIP5 simulations:

- ***Land-atmosphere feedbacks amplify aridity increase over land under global warming***, Nat.Clim.Ch.

Global-land decrease in P/PET under global warming is amplified by hydrological changes (soil moisture decrease) and CO2's physiological effect.

- ***Soil moisture influence on seasonality and large-scale circulation in simulations of the West African Monsoon*** (under rev. at J.Clim).

SM-atmos interactions influence early-season monsoon flow and core-season zonal circulation (e.g., African Easterly Jet), and thus precip, through impacts on temperature gradients.
Also, work in prep on WAM future projections and role of soil moisture changes.

Current work:

NOAA project **on evaluating Land-Atmosphere interactions in CMIP5 models**
Focus on simple metric like interannual (summertime) SM-ET correlation (=evaporative regimes).

- Characterize model spread;
- Investigate "structural" sources of spread (e.g., soil schemes, ET partitioning, etc.);
- Evaluate implications for model mean biases and projections.