Infrastructure and Domain changes at the SGP

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DOMAIN CHANGES

The SGP is in the midst of a major configuration change that will result in new and exciting capabilities for ARM. The SGP instrumentation was originally distributed over a 55,000 square mile area with 31 measurement sites, roughly the size of a typical general circulation model grid cell from the early 1990s. Changing scientific emphases, budget issues, improved climate model resolution, and the timely availability of ARRA money have dictated the changes that the SGP is undergoing.

Images to the left illustrate the original domain and the new domain with preliminary surface flux sites identified along with the new radars and relocated wind profilers.

NEW INSTRUMENTS

- New surface flux sites in new domain
- Three scanning X-band precip radars
- A scanning C-band precip radar
- Dual-frequency scanning cloud radar
- Zenith pointing Doppler Lidar
- Numerous instrument upgrades

NEW FACILITIES

- New consolidated office complex
- Expanded S&R warehouse
- Expanded Radiometer Calibration Facility and Electronics Repair Lab
- Removal of most 20+ year old trailers

Images to the left illustrate the original domain and the new domain with preliminary surface flux sites identified along with the new radars and relocated wind profilers.

Schematic of X-band radar (courtesy Radtec Engineering, Inc.)