

## **The Future of ARM Science and Observations**

A new science plan will be written in the coming year. Plans for the future of ACRF observations are being formed.

### **We want your input on the future of ARM science and ACRF observations!**

Questions for you to address

1. What are the outstanding aerosol, cloud, radiation and precipitation questions for ARM science in the next five years?
2. What ARM observations and data products are needed to address these questions? Are current ARM locations sufficient?
3. How can ARM be more effective in improving aerosol, cloud, radiation and precipitation parameterizations in global climate models?
4. How can ARM science be more effective in addressing the outstanding science questions identified by organizations such as the Intergovernmental Panel on Climate Change and the National Academy of Sciences?

We will now break into 4 groups. Spend the next hour discussing these questions. Assign a notetaker and a spokesperson for the group. After an hour, we will come back for a plenary session in which the spokesperson for each group will provide a summary of their group's discussion.

## Science Question Examples

1. How does cloud-scale ( $\sim 20$  m) vertical velocity change with cloud type and environmental conditions?
2. What are the proper representations of ice crystal size distributions and fall speeds?
3. What parameterizations of mixing in convective clouds are most consistent with observations?