



## **The ARM Climate Research Facility: New measurements, data products, and services**

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The DOE Atmospheric Radiation Measurement (ARM) Climate Research Facility is undergoing a number of changes to enhance the data made available for climate research. Many new instruments have been added across the Facility including measurements of aerosol, cloud, and precipitation properties. Among the additions have been radars and lidars to obtain better measurements of cloud microphysical and macrophysical characteristics. Over the past year there has been work done to refine the application of these instruments including the development of data products and calibration procedures. While data product development has tended to focus on the new instruments, there have also been efforts to develop products using more traditional ARM instruments including a consolidation of several cloud property retrievals using vertically pointing remote sensors. The goal of this product is to characterize uncertainty in cloud property retrievals and ultimately to work toward a best estimate of cloud properties. ARM is also looking forward to further enhancements in its measurement capabilities with the planned addition of two new sites this year. A new permanent site will be stationed on Graciosa Island in the Azores and a third mobile facility will see its first deployment in Oliktok, Alaska adjacent to the Arctic Ocean. To adapt to this expanding set of measurements, ARM has just rolled out a new interface for discovering and ordering data and is making other enhancements to its data infrastructure. The purpose of this presentation is to provide an update to these and other recent ARM developments with a focus on cloud measurements.