

***THE MIDLATITUDE CONTINENTAL CONVECTIVE CLOUDS
EXPERIMENT (MC3E)***

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ABSTRACT

The Midlatitude Continental Convective Clouds Experiment (MC3E) is a joint field campaign by the DOE ARM Climate Research Facility and NASA's Global Precipitation Measurement Mission set to take place April 22–June 6, 2011, at the Southern Great Plains Research Facility in Oklahoma. MC3E will use a multiscale, multiplatform measurement strategy of surface-based remote sensing, aircraft in situ, and satellite observations to provide the most complete characterization of convective cloud systems, precipitation, and the environment that has ever been obtained, providing constraints for model cumulus parameterizations and space-based rainfall retrieval algorithms over land. This campaign will highly leverage the assets available at the ARM Southern Great Plains facility, especially the new scanning radar systems purchased as part of the American Recovery and Reinvestment Act. In addition to these new and existing ARM permanent instruments, two scanning radar systems (Ka/Ku and S-band), vertically pointing profiler systems (S-band, UHF), an array of disdrometer systems, and a five-station radiosonde array will be deployed. This poster will present a scientific overview, the expected instrumentation, and an overview of final preparations for this field campaign.

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