

**Trace gas mixing ratios, carbon, water, and energy exchanges measurements at ARM facilities**

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The LBNL-led Carbon project and its associated suite of instruments first deployed in 2001 are in the process of becoming a part of the ARM Baseline. One of these instrument, AOSGHG, is part of the ARM standard collection of instruments and component of the Aerosol Observing system (AOS). We report on the status of ground-based measurements of atmospheric greenhouse gases from continuous analyzers and flask samplers, carbon, water and energy fluxes at Atmospheric Radiation Measurement Program Climate Research Facilities in the US Southern Great Plains (SGP), the Eastern north Atlantic (ENA), North Slope of Alaska (NSA), and ARM mobile facility deployed at Oliktok Point (AMF3).