

***AEROSOL OBSERVING SYSTEMS (AOS): NEW CAPABILITIES FOR  
ASR RESEARCHERS***

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**ABSTRACT**

Three new AOS units, including the Mobile Aerosol Observing System (MAOS) with an extended instrument suite, are coming on line as part of the ARM Climate Research Facility. These units represent a new generation of instrumental capabilities for aerosols and trace gases. The labs are independent and designed for rapid deployment, harsh environments, more autonomous operation and uniform data output across diverse instruments. An updated list of instruments and their status will be presented. Data are redundantly stored within each AOS, again at the Site Collector Computer and at the ARM Data Management Facility. A system of remote access over the internet allows mentors complete control over AOS infrastructure, instrument computers and direct control of most instruments. Mentors can view outputs in real time and communicate with on-site technicians. The units are also designed to accommodate guest instruments in addition to the standard suite. The first AOS unit, ARM Mobile Facility II (AMF II), is now operating as a stand-alone unit at StormVEx and data are flowing into the ARM system. The second unit will be deployed to the Tropical West Pacific in early Spring. MAOS A and C (for Aerosol and Chemistry) will be deployed during the 2011 Aerosol Life Cycle IOP followed by overseas operation during GVAX. Development of the data flow stream for all AOS units and the extended components of MAOS is ongoing.



ARM Mobile Facility II Aerosol Observing System (AMFII-AOS) at Christie Peak as part of the 2010/11 StormVEx Campaign

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