

# ARM Aerosol IOP Measurements

	<b>Measurement</b>	<b>Instrument</b>	<b>PI/team</b>	<b>Surface</b>	<b>Air</b>
1	Aerosol absorption (532 nm)	Photoacoustic	Arnott/DRI	X	X
2	Aerosol absorption (450, 550, 700 nm)	Modified aethalometer	Ogren/CMDL	X	
3	Aerosol extinction (532 nm)	Cavity Ringdown (CRD)	Arnott, Moosmueller/DRI	X	
4	Aerosol extinction (700 nm)	Cavity Ringdown (CRD)	Strawa/NASA/Ames		X
5	Aerosol size distribution 10 nm- 1 $\mu\text{m}$ at 2 RH	TDMA	Cal Tech		X
6	Aerosol optical thickness, extinction profiles	Airborne AATS-14 Sun photometer	Russell/Schmid NASA Ames		X
7	Aerosol hygroscopic scattering	Humidified Nephelometer, humidigraph	Covert (U. Wash)		X
8	Aerosol absorption	PSAP	Covert (U. Wash)		X
9	Aerosol Size Distribution 0.3-2.5 $\mu\text{m}$	PCASP (0.1-2.5 $\mu\text{m}$ ) >0.3 $\mu\text{m}$ (CAPS)	CIRPAS		X
10	Aerosol Size Distribution >0.5 $\mu\text{m}$	TSI aerodynamic particle sizer	CIRPAS		X
11	Aerosol Size Distribution (20 - 500 nm)	SMPS	Hudson/DRI	X	
12	Aerosol optical thickness (0.3-2.5 $\mu\text{m}$ ), sky radiance, polarization (870 nm), BRDF	Sun-sky-surface sensor	Tsay/NASA/GSFC	X	

# ARM Aerosol IOP Measurements

	<b>Measurement</b>	<b>Instrument</b>	<b>PI/team</b>	<b>Surface</b>	<b>Air</b>
13	Broadband irradiance	Broadband cavity radiometer	PNNL (Michalsky)	X	
14	Diffuse/direct radiance (300-380 nm)	UVRSS	Michalsky (SUNY Albany)	X	
15	Column ozone	UVRSS or CSU-MFRSR	Michalsky/SUNY Albany, Slusser/USDA	X	
16	Upwelling and downwell SW spectral irradiance/radiance, surface albedo 300-2500 nm	Solar Spectral Flux Radiometers (SSFR)	Pilewskie/NASA Ames		X
17	reflectance, radiance or irradiance spectra (350-2500 nm)	SWS (Shortwave Spectroradiometer), Solar spectrometer	Pilewskie/NASA Ames, Tsay/NASA Goddard	X	
18	Total upward and downward fluxes	Kipp and Zonen CM-22 pyranometers, CG-4 pyrgeometers	A. Bucholtz/NRL		X
19	CCN	CCN spectrometer	Hudson/DRI	X	
20	CCN	CCN spectrometer	Seinfeld/Cal Tech		X
21	Aerosol/Cloud Drop Size Distribution 0.5-50 $\mu\text{m}$	CAPS, FSSP	CIRPAS		X
22	Cloud liquid water	Johnson probe in CAPS	CIRPAS		X
23	Cloud liquid water	Gerber PVM probe	CIRPAS		X
24	Meteorological state	Standard instruments	CIRPAS		X