

SAM Capability

Cloud optical depth

Particle size distribution

Column Water Vapor

SAM instruments come in two versions: Portable (200 series), and Semi-autonomous (300 series).

300 series units come with a protective housing (RoboDome) and integrated weather station.

SAM instrument suites include an integral, temperature-controlled VIS/NIR Sun spectrometer.

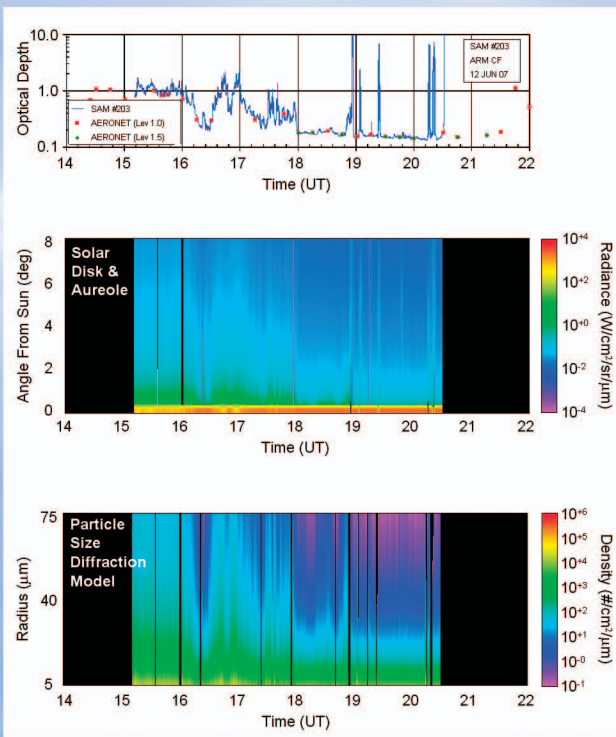
SAM Applications

Climate (cloud) monitoring

Cloud physics research

Cloud algorithms cal/val

SAM Display



SAM 300

Complements AERONET

Quantity	SAM	AERONET
Scatterer	clouds (aerosols)	aerosols (clouds)
Size range	~5 – 100 μm	~0.1 – 1 μm
OD Range – direct	0 to 10	0 to 1
– indirect	up to 100	
Min aureole angle from disk edge	~ 0.25°	~ 2.25°
Measurement sampling	~ 10 sec (adjustable)	~ 10 min (typical)
Field of View	~ 50° (imaging)	~ 120° (scan FOR)
Pixel IFOV	0.015°	1.2°

<http://www.visidyne.com/SAM/SAMhome.htm>
Call Ilya Schiller: 781-273-2820



"SAM sensors can do for clouds what Aeronet sensors have done for aerosols."

Prof. Phil Durkee, Chairman,
Dept. of Meteorology, Naval
Postgraduate School,
Monterrey, CA.



SAM 200

SAM is a new, accurate, solar tracking instrument that fills the need in a number of diverse applications for simultaneously measuring the aureole caused by forward scattering and the optical depth (OD) of clouds.



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SAM - Ground-based Measurements of Cloud Optical Properties

SAM Sun and Aureole Measurements