

ARM STM, Monterey, CA

Aerosol Working Group

Breakout Session

March 26, 2007

Beat Schmid

AWG PIs (as of December 2006)

PI	Affiliation	Title	
Chuang&Chin	LLNL	Examine Aerosol Indirect Effects with a 3-D Cloud Resolving Model and ARM Data	Indirect
Feingold	NOAA	Investigation of the Aerosol Indirect Effect at SGP and AMF Using Ground-based Remote Sensors	
Ghan	PNNL	Cloud Modeling for Indirect Effects of Aerosols	
Miller	BNL	Parameterizations of Cloud Microphysics and Indirect Aerosol Effects	
Penner	U Mich	Cloud/Aerosol Interactions: Application and Improvements to General Circulation Models	
Turner	U Wisc	Analysis and Calibration of CRF Raman Lidar Cloud Liquid Water Measurements	
Lacis	NASA	Cloud/Aerosol Radiative Forcings and Feedbacks in a Climate GCM	Both
Schwartz	BNL	Shortwave Radiative Influences of Tropospheric Aerosols	
Ferrare&Flynn	NASA&PNNL	Characterizing the Vertical Distribution of Aerosols Over the ARM SGP Site	Direct
Schmid	PNNL	Vertically Resolved Radiative Properties of Aerosols and Clouds	

AWG Instruments

- Raman Lidar
- Micropulse Lidars
- Aerosol Observation Systems
 - scattering, absorption, number, size distribution, hygroscopicity, CCN, composition (major ions).
- In situ Aerosol Profile (Cessna)
 - scattering, absorption, number, hygroscopicity, CO₂
- Radiometers:
 - MFRSR, NIMFR, RSS, Cimel, AERI

Translators & Instrument Mentors

First	Last	Affiliation	Instrument
Connor	Flynn	PNNL	AWG Translator
Annette	Koontz	PNNL	AWG Translator Support
Chitra	Sivaraman	PNNL	AWG Translator Support
Dave	Turner	U. Wisc.	AERI
Ralph	Dedecker	U. Wisc.	AERI
Anne	Jefferson	NOAA	IAP and AOS
Betsy	Andrews	NOAA	IAP and AOS
Pat	Sheridan	NOAA	IAP and AOS
John	Ogren	NOAA	IAP and AOS
Gary	Hodges	NOAA	MFRSR, NIMFR
John	Schmelzer	PNNL	MFRSR, NIMFR
Rich	Coulter	ANL	MPL
Rob	Newsom	PNNL	Raman Lidar
Dave	Turner	U. Wisc.	Raman Lidar
John	Goldsmith	SNL	Raman Lidar
Peter	Kiedron	NOAA	RSS
Donald	Collins	Texas A & M	TDMA

AWG IOPs

- Recent Past:
 - MASRAD (Marine Stratus Radiation, Aerosol, and Drizzle, CA, 2005)
 - ALIVE (Aerosol Lidar Validation Experiment, SGP, 2005)
 - RADAGAST (Niger, 2006)
- Future:
 - CLASIC, June 2007, SGP (with ASP CHAPS)
 - ISDAC, 2008, NSA
 - COPS, AMF, Germany, 2007, V. Wulfmeier
 - AMF, China, 2008, Z. Li

CLASIC/CHAPS

SGP, June 2007

7 Aircraft

1. NASA ER-2
2. CIRPAS Twin Otter
3. International Twin Otter
4. AVP Cessna 206
5. Duke Helicopter
6. NASA Langley King Air B200
7. DOE G-1

ARM

Aerosol Working Group Meeting

Chairs: B. Schmid, C. Flynn

Nov. 1–2, 2006
San Francisco, CA

***First Annual Meeting of the Aerosol Indirect Effect
Assessment (Aerosol IDEA) Special Focus Group***

Last day of CMWG & First day of AWG

Lead: S. Ghan

AWG Meetings

– Nov 06, San Francisco

- 1st day ~55 attendees
- 2nd day ~30(?)

- Mar 06, Albuquerque, ~40 attendees
- Nov/Dec 05, Boulder, ~40 attendees
- Mar 05, Daytona, ~35 attendees
- Dec 04, Boulder, ~20 attendees

AWG Meeting Feedback (1/2)

- Great attendance
- Good location
- Good organization
- Virtually no refreshments
- Too AGU like
- More time for discussion
- High level of discussion
- Enjoyed science
- Got great feedback
- Too much MFRSR stuff
- The cool science papers shouldn't be back loaded at the end of the meeting; there is no changing the fact that people will bail out early in order to get home the same day, and you have to bend to that reality rather than trying to keep them by having cool talks late in the meeting

AWG Meeting Feedback (2/2)

- Future Location/Mode:
 - Steamboat Springs, CO (lab tours, NOAA uses it too)
 - Somewhere on Pacific Coast. Finish at noon.
 - DC
 - Not on Halloween
 - Joint meeting of all four working groups
 - Important for 2 groups hold colocated meetings (science, travel)
 - Joint meeting with ASP

Next AWG meeting combined with RPWG

Univ. Wisconsin, Madison, WI
Sep 17 - 19, 2007 (Mon-Wed).

STM Monterey 2007

- 6 Plenary Talks related to Aerosols
- 4 Breakout Sessions related to Aerosols
- 41 Posters related to Aerosols

STM Albuquerque 2006

- 7 Plenary Talks related to Aerosols
- 3 Breakout Sessions related to Aerosols
- 30 Posters related to Aerosols

		Plenary Talks related to Aerosols	
1		Li	A Pathway to a New Frontier of Aerosol-Climate Studies
2		Lubin	Magnitude of the Aerosol Shortwave Indirect Effect in Springtime Arctic Liquid Water Clouds
3		Ghate	A New Technique for Studying Aerosol-Cloud Interactions in Marine Stratocumulus
4		Kassianov	Relationship Between Cumulus Cloud Fraction and Aerosol Optical Depth: A Five-Year Climatology at the ACRF SGP Site
5		Trepte	CALIPSO Mission Overview
6		Slingo	Results from the ARM Mobile Facility Deployment in Niamey and the RADAGAST Project
		Breakout Sessions related to Aerosols	
1		Schmid	AWG
2		Ghan	Aerosol Indirect Effects
3		Miller	CLASIC
4		Ghan/Verlinde	ISDAC/RISCAM

ARM Aerosol Working Group, Agenda, March 26, 2007, 1:00 - 4:00 pm

13:00	0:14	Schmid	Welcome, Introduction, Agenda, Make-up of AWG, New Business
13:14	0:14	Schmid	Aerosol Lidar Validation Experiment (ALIVE): Introduction, lidar and airborne measurements comparisons
13:28	0:12	Kiedron	Aerosol Lidar Validation Experiment (ALIVE): AOD intercomparison
13:36	0:04	Knobelspiesse	Aerosol Lidar Validation Experiment (ALIVE): Polarimetry
13:44	0:14	McFarlane	Radiative Forcing of Saharan Dust Aerosol at Niamey
13:58	0:06	Schmid for Bedka/Turner	AERI's view of Niamey Dust
14:04	0:14	Chuang	Exploring the Multi-Scale Aerosol/Cloud Interactions from ARM Measurements to Global Modeling
14:18	0:14	Lacis	Geoengineering, a Timely Remedy for Global Warming?
14:32	0:14	Mayor	Raman-Shifted Eye-safe Aerosol Lidar (REAL)
14:46	0:20	Break	
15:06	0:14	Ogren	The ARM Aerosol Observing Systems: Status and Planned Upgrades
15:20	0:20	Ogren, all	In-situ Aerosol Profile (Cessna) Renewal Proposal
15:40	0:20	Flynn, all	Review of priorities of aerosol related VAPs for Sunset Committee

Aerosol Indirect Effects 4:00 - 5:00 pm, Leader: S. Ghan

16:00	0:05	Marshak	Increase of the satellite retrieved AOD due to the enhanced illumination of cloud-free areas in the vicinity of clouds
16:05	0:05	Hudson	CCN contrasts below and above California stratus
16:10	0:15	Miller	Regimes within the first aerosol indirect effect
16:25	0:05	X. Liu	Aerosol indirect effects on cold clouds
16:30	0:10	Min	Saharan dusts impact on clouds and precipitation
16:40	0:10	Li	Use of ARM data to separate aerosol effects from artifacts
16:50	0:10	Y. Liu	Multimoment Formulation of the Autoconversion Process
17:00	0:10	Turner	Routine AVP CLOUD Optical Radiative Observations
17:10		Adjourn	