

# Aerosols & Radiation Working Group

## Planned Papers

(Plan--exchange outlines real soon)

Bruce Anderson: Cloud properties & aerosol links

Binkowski, Chatfield: Aerosol characterization in lower troposphere using ICARTT data. EPA forecast model. Mainly outside New England.

Ferrare: Aerosol lidar processing, account for extinction (include DC-8 in situ + AATS extinction)

\*Kahn: Validating MISR data—refine algorithms. Regional images. Ron Brown, DC-8 (in situ & DIAL), J31 (AATS & SSFR).

Kittaka: RAQMS aerosol model: MODIS AOD assimilation. Impact of Smoke plume on air quality. Relative contribution of organic carbon to air pollution PM<sub>2.5</sub>

Lefer: UV-Vis rad w DC-8, AATS & MISR AOD, SSA: How well does RT model predict rad?

\*McNaughton: Environmental snapshots w MISR, DC-8, J31. Closure.

Omar: Lidar depolarization & wavelength dependence to identify aerosol type. Air mass characterization. Applying CALIPSO algorithms to UV-DIAL data. Couple lidar & in situ data.

Pilewskie, Livingston, Redemann et al.: Aerosol layers above clouds—radiative forcing and influence on satellite retrievals of cloud properties.

#Redemann, J., P. Pilewskie, P. Russell, S. Howard, J. Pommier, J. Livingston, B. Schmid, W. Gore, J. Eilers, M. Wendisch, "Airborne measurements of spectral direct aerosol radiative forcing - a new aerosol gradient method applied to data collected in INTEX/ITCT, 2004" (planned for *Geophys. Res. Lett.*, exact order of authors TBD)

\*Russell or AATS: MODIS/MISR/AATS comparisons

Tang: 3-D model, West-East coast variability. Nitrogen partitioning between gas & aerosol. Use A/C data to verify emissions, esp NO<sub>x</sub> & SO<sub>2</sub>.

Thornhill: Bulk transport of aerosol off the NE US coast

Trainer?: Cloud processing of aerosols and related pollutants, esp burning emissions far downwind

\*Coordinated set of papers

#Early publication requested

## **Other Topics & Questions:**

Redemann, Kondragunta: Aerosol enhancements around clouds

SAGE, POAM solar occultation & MISR stereo to see stratospheric penetrations of Alaska/Canada smoke plumes.

PAVE DIAL in same region as INTEX: summer vs winter.

Colarco: Improve treatment of smoke in CARMA/MATCH model.

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