

# Monica K. Harkey

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## Education

Ph.D. (Atmospheric and Oceanic Sciences), University of Wisconsin-Madison (*in progress*)  
M.S. (Atmospheric and Oceanic Sciences), University of Wisconsin-Madison, 2001  
B.S. with honors (Physics and Geography), Mary Washington College, 1999

## Research

- \* Graduate Research Assistant, chemical transport and modeling of aerosol-cloud interactions, (June 2001-present)
- \* Graduate Research Assistant, satellite remote sensing of cloud properties, (September, 1999- December 2001)

## Teaching

- \* Lab instructor/discussion leader: *Weather & Climate* (spring 2002 and 2003)
- \* Grader: *Global Change: Atmospheric Issues and Problems* (spring 2001 and 2005); *Weather & Climate* (spring 2002 and fall 2003)
- \* Tutor: *General Physics II* (summer and fall 2002); *Ecology and a Changing Planet* (spring 2004)
- \* Training: *Teaching Science to the Non-Scientist*, summer 2003, University of Wisconsin-Madison

## Publications

- Baum, B. A., R. A. Frey, G. G. Mace, M. K. Harkey, and P. Yang, 2003:  
Nighttime multilayered cloud detection using MODIS and ARM data. *J. Applied Meteorology*, 42, 905-919.
- Harkey, M., 2001: *Nighttime Cloud Overlap Discrimination Using MODIS and ARM Data*. M.S. degree, University of Wisconsin-Madison, 85pp.

## Conferences and Presentations

- Harkey, M.K., *Lagrangian Trajectories*. Oral presentation for AOS 915-Chemical Transport Modeling in the Atmosphere and Ocean, 4 November 2005.

Harkey, M.K., *Do anthropogenic aerosol moisten the lower stratosphere?* Oral presentation for AOS 907-Research Presentations, 21 October 2005.

Harkey, M.K., *On using a population of idealized ice nuclei to model anthropogenic influences on tropical cirrus.* Poster presentation at the Cargese International School on the Upper Troposphere and Lower Stratosphere, 3-15 October 2005.

Harkey, M.K., and M.H. Hitchman: *An evaluation of the UWNMS treatment of water vapor transport and cirrus formation in the upper troposphere/lower stratosphere.* Oral presentation at a joint session of the 13<sup>th</sup> Conference on the Middle Atmosphere, 15<sup>th</sup> Conference on Atmospheric and Oceanic Fluid Dynamics, and 17<sup>th</sup> Conference on Climate Variability and Change, Cambridge, MA, US, 13-17 June 2005.

Harkey, M.K.: *An informal discussion on the potential connections among smoke, cirrus, and stratospheric moisture.* Oral presentation for AOS 907-Research Presentations, 3 December 2004.

Harkey, M, M. Hitchman, and E. Prins: *A comparison of passive tracer analyses of biomass burning plumes for different phases of the El-Nino Southern Oscillation (ENSO).* Poster presentation at the 8<sup>th</sup> International Global Atmospheric Chemistry Conference, Christchurch, NZ, 4-9 September 2004.

Harkey, M. K.: *A brief history of air.* Oral presentation for AOS 900-Meteorology: Current & Classical Problems, 6 February 2004.

Harkey, M. K.: *Nighttime cloud overlap using MODIS and ARM data.* Oral presentation for AOS 907-Research Presentations, 28 October 2002.

Harkey, M. K., and B. A. Baum: *Nighttime cloud overlap using MODIS data.* Poster presentation at the 11<sup>th</sup> Conference on Satellite Meteorology and Oceanography, Madison, Wisconsin, US, 15-18 October, 2001.

Harkey, M. K.: *Storm Electricity and Lightning.* Oral presentation for AOS 932-Severe Storms Seminar, 25 April 2000.

## **Languages**

English (native speaker), French

## **Interests**

- \* climate change
- \* atmospheric chemistry
- \* aerosol-cloud interaction
- \* cloud microphysics
- \* land-use change
- \* environmental policy
- \* science education