

Douglas L. Sisterson

“What is the ARM Climate Research Facility: Is Global Warming a Real Bias or a Statistical Anomaly?”

The Atmospheric Radiation Measurement (ARM) Climate Research Facility (ACRF) is a U.S. Department of Energy, Office of Science, Office of Biological and Environmental Research national user facility. With multi-laboratory management of distributed facilities worldwide, the ACRF does not fit the mold of a traditional user facility located at a national laboratory. The ACRF provides the world's most comprehensive 24/7 observational capabilities for obtaining atmospheric data specifically for climate change research. Serving nearly 5,000 registered users from 15 federal and state agencies, 375 universities, and 67 countries, the ACRF Data Archive collects and delivers over 5 terabytes of data per month to its users. The ACRF users provide critical information about cloud formation processes, water vapor, and aerosols, and their influence on radiative transfer in the atmosphere. This information is used to improve global climate model predictions of climate change.

Douglas Sisterson joined Argonne in 1975 after earning his B.S. in physics from Muskingum College and his M.S. in atmospheric sciences from the University of Wyoming. He is a Research Meteorologist in the Computing, Environment, and Life Sciences Directorate at Argonne, and is the Operations Manager for the U.S. Department of Energy's (DOE's) Atmospheric Radiation Measurement Climate Research Facility. Before turning to climate change, Doug's experimental work covered fundamental boundary layer meteorology and micrometeorology, wet and dry removal processes, and pollutant transport. His earliest work focused on wind energy. Studies between 1980 and 1990 emphasized the physical and chemical processes that lead to acid precipitation. He was principal author of the cornerstone report, "State of Science Report for the National Acid Precipitation Assessment Program." He is the author or co-author of more than 100 research papers, conference proceedings, published reports, and extended abstracts. He has been a science mentor for the Global Learning and Observations to Benefit the Environment Program and the DOE's Global Change Education Program for college and graduate students, and a 10-year participant in the "We Care Role Model" Program sponsored by the Chicago police department and the Chicago public schools.

Wednesday, March 10, 2010

3:00 p.m.

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