DAVID R. COOK

Climate Research Section
Environmental Science Division
Argonne National Laboratory

Education:

M.S.	The Pennsylvania State Univ., Meteorology, 1977
B.S.	The Pennsylvania State Univ., Meteorology, 1974

Professional Experience:

1997–Present	Scientific Associate, Senior, Environmental Science Division
1989-1997	Scientific Associate Environmental Research Division
1977-1989	Scientific Assistant Environmental Research Division Argonne National Laboratory

As a technical staff member, coordinate and participate in intensive micrometeorological, air-quality, lightning, and precipitation field studies, and climatological, meteorological, and air-quality monitoring activities. As a member of the Instrument Team of the Department of Energy Atmospheric Measurement Program, responsible for developing, procuring, installing, and directing maintenance of instrument systems used to monitor climate change; performing data quality activities on systems and producing data quality and monthly reports.

Participant in the Ameriflux program for the measurement of the air-surface exchange of heat and carbon dioxide fluxes (manage two sites and direct support staff activities for the Fermi National Laboratory sites). Project Director of the Argonne National Laboratory emergency response system Meteorological Tower; responsible for equipment, data processing and dissemination to the laboratory, and the direction of support personnel.

Expertise in micrometeorological and air-quality measurement techniques, data analysis, quality assurance of data, monitoring and siting requirements, surface and boundary layer theory, meteorological and air-quality instrumentation, and computer programming.

Summary of Previous Experience:

1975–1976 Institute for Research on Land and
Water Resources, The Pennsylvania State University

Investigated the effects on the soil and air-surface exchange of energy from the release of heat from power plant water cooling pipes buried in the soil under different vegetated surfaces.

1973 & 1974 (Summers) Environmental Research and Technology
Concord, MA

Developed an air-mass classification system, wrote progress reports on air-quality standards compliance for industries, interpreted air-quality and meteorological data, and located air-quality monitoring stations on topographic maps.

Research Interests:

Management of climate monitoring instrument networks and tower platforms.
Experimental studies of the air-surface exchange of energy, carbon dioxide, and pollutants using the gradient and eddy correlation techniques.
Comparison of the gradient and eddy correlation techniques for flux measurements.
Measurement of nitrogen oxides production by lightning.
Lightning protection systems for instrumentation and facilities.
Building Manager/Field Site Manager
(484, Climate Research Section field site)
Satellite Accumulation Area Supervisor
(Bldg. 203, J-068, J-176, Building 484)
Ask A Scientist – NEWTON

Professional Activities:

Member, American Meteorological Society
Member, Air and Waste Management Association
Member, American Management Association
Member, Lightning Protection Institute (Professional Division)
Certified Designer/Inspector (Lightning Protection Institute)
DOE Lightning Protection Taskgroup; DOE Explosives Committee
Atmospheric Radiation Measurements Program Instrument Team
Atmospheric Radiation Measurements Program Data Quality Reporter Team

Publications:

Author or co-author of 27 peer-reviewed articles and book chapters, 50 conference publications and presentations, and 29 reports.