

## **Raymond A. McCord**

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## **Education and Training**

1980 University of Tennessee-Knoxville, Ecology, PhD  
1976 University of Tennessee-Knoxville, Ecology, MS  
1974 Western Illinois University, Botany, BS

## **Research and Professional Experience**

1986-Present Project Manager. Atmospheric Radiation Measurement Data Archive, Environmental Sciences Division, ORNL. Responsible for supervising the operation and maintenance of the Archive by its staff. Planning the expansion of the archive capacity and identifying improvements that better support the atmospheric researchers.

- *May 2000 - present* Member of the ARM Infrastructure Management Board and ex-officio member of the Executive Committee for Science Planning for ARM. Peer interactions with other primary ARM managers and scientists enable the Archive to better anticipate the continually evolving requirements of a research program.
- *January 2000 - December 2004* Manager and Principal Investigator of ARM Carbon project for developing data products for carbon cycle models.

1994-1995 Project Manager. Strategic Environmental Research and Development Program (SERDP), Environmental Sciences Division, ORNL. Research on the strategy for biological resource management on Department of Defense (DoD) / Department of Energy (DOE) lands. Responsible for the overall planning (technical and financial) of the project (with an expected 4 year duration); tracking and reporting the progress of the research; preparing presentations about the research, and coordinating staff for the project at 2 DoD (Ft. Knox, Ft. Lewis) and 2 DOE (Oak Ridge, Hanford) sites.

1993-1994 Program Manager. Oak Ridge Environmental Information System (OREIS), ORNL. Responsible for the overall planning (technical and financial) of the program; representing the program within the plans for other ER programs and activities; tracking and reporting the technical progress of the system development and implementation; and determining staffing requirements for the project. Contributed technical input to general ER information management plans.

1990-1993 Technical Project Manager for the development and implementation of OREIS, ORNL. Responsible for technical coordination between development components, review of all documents and products from the system development, and coordination of the project with other data base projects. Provide general problem solving and philosophical guidance all aspects of project development. Also provides input on project staffing, budget analysis, and presentations about the project.

1989-1990 Group Leader. Geographic Information and Computing Facility, Environmental Analysis Section, Environmental Sciences Division (ESD), ORNL. Supervision of 3 technical staff; coordination of hardware and software maintenance and repair; evaluation of future central computing system requirements; acquisition of software and hardware; installation of GIS hardware and software (ARC/INFO, SPANS, ERDAS); acquisition of reference GIS data; development of interfaces for GIS data and graphic devices; training of GIS users; and assistance with advanced GIS processing.

1986-1989 Applications GIS Programmer. ORNL Remedial Action Program. Responsible for managing spatial data describing sampling wells and transects, waste sites, and waste area boundaries.

- Produced maps and figures for data verification, and reports. Performed analyses to determine spatial relationships between different records of monitoring well locations and waste area boundaries.
- 1982-1986 Manager/Data Management Support/Project Manager/Terrestrial Ecologist. Technical Information and Analysis Division, Science Applications International Corporation (SAIC), Oak Ridge, TN. Manager for Off-site Support Section; Data management support to ORNL for the Eastern and Western Lake Surveys of the National Surface Water Survey; Project manager and terrestrial ecologist for SAIC evaluating the ecological impacts of Southwest Orange County Florida Wastewater Treatment Expansion; Ecologist for SAIC on the Florida Fuel Use Act EIS. Private Consultant. Science Applications International Corporation, Oak Ridge, Tennessee.
- 1978-1982 Statistical Consultant for SAIC on Mississippi Sound Benthic Community Characterization project as a subcontractor for the Corps of Engineers; Data manager for Shrimp and Redfish project conducted by SAIC for the National Marine Fisheries Service; Ecologist assisting SAIC in the compilation, verification, analysis, and interpretation of marine data from the Gulf of Mexico for baseline monitoring and environmental impact assessment of the DOE's Strategic Petroleum Reserve Program.

### Publications

1. *McCord, R. A., Lenhardt, C. W., Palanisamy, P* 2008. Statistical Views from Deep Archives to Support Data Discovery: Learning from the Atmospheric Radiation Measurement Archive Experience. (Presentation) Scientific Information for Society from Today to the Future. 21<sup>st</sup> International CODATA Conference, October 5-8, 2008 Kyiv, Ukraine.
2. *Peppler, R. A., C. N. Long, D. L. Sisterson, D. D. Turner, C. P. Bahrmann, S. W. Christensen, K. J. Doty, R. C. Eagan, T. D. Halter, M. D. Ivey, N. N. Keck, K. E. Kehoe, J. C. Liljegren, M. C. Macduff, J. H. Mather, R. A. McCord, J. W. Monroe, S. T. Moore, K. L. Nitschke, B. W. Orr, R. C. Perez, B. D. Perkins, S. J. Richardson, K. L. Sonntag, J. W. Voyles, R. Wagener.* 2008 An Overview of ARM Program Climate Research Facility Data Quality Assurance. *The Open Atmospheric Science Journal* 2:192-216.
3. *McCoy, R., S. Xie, S. Klein, E. Clothiaux, C. Long, D. Turner, S. McFarlane, M. Jensen, K. Gaustad, K. Johnson, Y. Shi, R. Cederwall, R. McCord, G. Palanisamy, B. Horwedel.* 2009. Climate Modeling Best Estimate Dataset (CMBE) – New Additions. (Poster) Nineteenth Atmospheric Radiation Measurements (ARM) Science Team Meeting, March 30 – April 3, Louisville, Kentucky.
4. *McCord, R., G. Palanisamy, S. Moore, K. Gibson, W. Lenhardt.* 2009. Data Extraction from the ACRF Archive: More Progress Toward Customized Data Delivery for the Users. (Poster). Nineteenth Atmospheric Radiation Measurements (ARM) Science Team Meeting, March 30 – April 3, Louisville, Kentucky.
5. *Cook, R.B., W.M. Post, L.A. Hook, and R.A. McCord.* 2009. A Conceptual Framework for Management of Carbon Sequestration Data and Models. In B.J. McPherson and E.T. Sundquist, editors. *Chapman Conference on Science and Technology of Carbon Sequestration. AGU Monograph Series.*
6. *Xie, S., R. McCoy, S. Klein, R. Cederwall, W. Wiscombe, E. Clothiaux, K. Gaustad, J. Golaz, S. Hall, M. Jensen, K. Johnson, Y. Lin, C. Long, J. Mather, R. McCord, S. McFarlane, G. Palanisamy, Y. Shi, and D. Turner,* 2010. CLOUDS AND MORE: ARM Climate Modeling Best Estimate Data. A New Data Product for Climate Studies. *Bulletin of the American Meteorological Society* 91:13-20.

### Synergistic Activities

1. Member of Ecological Society of America
2. Association of Southeastern Biologists
3. Sigma Xi.