Richard T. McNider

University of Alabama in Huntsville (UAH)
Distinguished Professor of Science1999-

Professional Appointments:
>   Professor, Atmospheric Science 1996-Present
>   Director, Earth System Science Center, University of Alabama in Huntsville 1987-1999
>   Interim Dean, College of Science 1998-1999
>   Professor, Mathematics 1992-Present
>   Associate Professor, Mathematics UAH 1987-1992
>   Assistant Professor, Mathematics UAH 1984-1987
>   Chief of Planning and Development, Alabama Air Pollution Control Commission 1975-1983
>   Air Pollution Modeler, U. S. Environmental Protection Agency, 1973-1974
>   Research Associate, Department of Oceanography Florida State University 1972-1973

Professional Societies:
Fellow of the American Meteorological Society

Education:
>   University of Alabama, Mathematics B.S. (1970)
>   Florida State University, Meteorology M.S., (1972) Thesis in Coastal Upwelling
>   University of Virginia Environmental Science PhD, (1981) Thesis in Atmospheric Flows in Complex Terrain

Synergistic Activities:

- Work as an oceanographer and broad background in the interdisciplinary Environmental Science Program including ecosystem water at the University of Virginia

- Led initiative to model katabatic winds/ocean/ice systems of Antarctic

- Serves on NASA Applied Sciences Air Quality Team (AQAST)

- Has emphasized work on the stable boundary layer throught out his career.

- Led activities assimilating satellite into a boundary layer modelsreal-time crop model framework

Selected list of publications (over 90 refereed publications):

McNider, R.T., Handyside, C., Doty, K., Ellenburg, W.L., Cruise, J.F., Christy, J.R., Moss, D., Sharda, V., Hoogenboom, G. and Caldwell, P., 2015. An integrated crop and hydrologic modeling system to estimate hydrologic impacts of crop irrigation demands. *Environmental Modelling & Software*, *72*, pp.341-355.

McNider, R. T., G. J. Steeneveld, A. A. M. Holtslag, R. A. Pielke Sr., S. Mackaro, A. Pour-Biazar, J. Walters, U. Nair,and J. Christy (2012), Response and sensitivity of the nocturnal boundary layer over land to added longwave radiative forcing, J. Geophys. Res., 117, D14106, doi:10.1029/2012JD017578.

Walters, J. ,R.McNider, X. Shi, B.Norris, and J. Christy. Positive temperature feedback in the stable boundary layer. Geophys. Res. Let., vol. 34, L12709, doi:10.1029/2007GL029505, 2007

Shi, X., McNider, R. T., D. E. England, M. J. Friedman, W. Lapenta, and W. B. Norris, 2005: On the behavior of the stable boundary layer and role of initial conditions, Pure Appl. Geophys., 162, 1811-1829.

McNider, R. T., W.M. Lapenta, A. Biazar, G. Jedlovec, R. Suggs, and J. Pleim, 2005: Retrieval of grid scale heat capacity using geostationary satellite products: Part I: Case-study application, J. Appl. Meteor., 88, 1346-1360

McNider, R. T., W. Norris, A. Song, R. Clymer, S. Gupta, R. M. Banta, R. J. Zamora, A. B. White, and M. Trainer: Meteorological conditions during the 1995 Southern Oxidants Study Nashville/Middle Tennessee Field Intensive. Jrnl. Geophysical Res., Vol. 103, 22,225-22,243, 1998.

McNider, R. T., X. Shi, M. Friedman, and D. E. England,1995: On the predictability of the stable atmospheric boundary layer, J. Atmos. Sci., 52, 1602-1614.

McNider, R. and R. Pielke - Diurnal boundary layer development over sloping terrain. Journal Atmospheric Sciences, Vol. 38, pp. 2198-2212, October 1981.

R.T. McNider, M. Moran and R. Pielke, 1988 Influence of Diurnal and Inertial Boundary Layer Oscillations on Long-Range Dispersion. Atmospheric Environment, Vol. 22, pp. 2445-2462, November 1988.

R. T. McNider, A. J. Song, D. Casey, P. J. Wetzel, W. Crosson, and R. M. Rabin 1994: Toward a Dynamic-Thermodynamic Assimilation of Satellite Surface Temperature in Numerical Atmospheric Models. Monthly Weather Review, Vol. 122, pp. 2784-2803, 1994.

Academic Advisors:
  Pileke Sr., Roger A., Ph.D Advisor, Cires, University of Colorado, Boulder
  O'Brien, James J., M.S. Advisor, Florida State University

Recent Ph.D Students:
  Scott Mackaro, Vaisala
  Jerry Herwehe, EPA NERL
  Justin Walters, Southern Company