

Biographical Sketch

Rolf F. Hertenstein
Research Scientist

Professional preparation:

Dr. Hertenstein graduated from San Jose State University in 1987 with a B.S. in Meteorology and a minor in Mathematics. At San Jose State he was C.A. Riegel Award for Academic Excellence, 1986-1987. Graduate studies began with a Colorado State University (CSU) Fellowship in 1987; he received an M.S. from the CSU Department of Atmospheric Science in 1988 and a Ph.D. in 1996.

Appointments:

- 2000- present: Research Scientist at NorthWest Research Associates, Colorado Research Associates Division, Boulder, CO.
- 1997-2000: Research Associate, Cooperative Institute for Research in the Atmosphere, Ft. Collins, CO.
- 1996-1997: Mission Research Corporation, Ft. Collins, CO.
- 1995-1996: Graduate Research Assistant, Department of Atmospheric Science, Colorado State University, Ft. Collins, CO.
- 1991-1995: Research Associate, Department of Atmospheric Science, Colorado State University, Ft. Collins, CO.
- 1989-1991: Professional Research Assistant, Cooperative Institute for Research in Environmental Sciences, Boulder, CO.
- 1987-1988: Graduate Research Assistant, Department of Atmospheric Science, Colorado State University, Ft. Collins, CO.

Publications:

- Hertenstein, R.F., and J.P. Kuettner, 2005: Rotor types associated with steep lee topography: Influence of the wind profile. *Tellus*, **57A**, 117-135.
- Cram, T.A., M.T. Montgomery, and R.F. Hertenstein, 2002: Early evolution of vertical vorticity in a numerically simulated convective line, *J. Atmos. Sci.*, **59**, 2113-2127.
- Greenwald, T.J., R.F. Hertenstein, and Tomislava Vukicevic, 2002: An all-weather observational operator for radiance data assimilation with mesoscale forecast models. *Mon. Wea. Rev.*, **130**, 1882-1897.
- Pielke, R.A., and Co-Authors, 1995: Standardized test to evaluate numerical weather prediction algorithms. *Bull. Amer. Meteor. Soc.*, **76**, 46-48.

Other publications:

Hertenstein, R.F., and G.S. Poulos, 2002: Interaction of trapped lee-waves and the convective boundary layer. Preprints 10th Conf. on Mountain Meteorology, AMS, Park City, UT, 17-21 June.

J. Kuettner and R.F. Hertenstein, 2002: Observations of mountain-induced rotors and related hypotheses: A review. Preprints 10th Conf. on Mountain Meteorology, AMS, Park City, UT, 17-21 June.

Synergistic Activities:

In addition to his research efforts, Dr. Hertenstein has been a glider pilot for more than 30 years. He has held FAA commercial and flight instructor glider certificates since 1974 and in recent years has become a FAA Designated Pilot Examiner for gliders. He has flown through rotors associated with mountain waves in several areas in the western USA literally hundreds of times.

Dr. Hertenstein has a record of educating the aviation community on weather topics. In 2003, he worked with the Federal Aviation Administration (FAA) to develop scenario-based weather questions for FAA knowledge tests. Recently, he has completed a “Mentor Series” book on thermal soaring weather meant for gliding community (see Broader Impacts).

Recent Collaborators:

- David C. Fritts, Colorado Research Associates division of Northwest Research Associates
- Robert L. Grossman, Colorado Research Associates division of Northwest Research Associates
- Joachim P. Kuettner, University Cooperative for Atmospheric Science
- Micheal T. Montgomery and Thomas A. Cram, Colorado State University
- Gregory S. Poulos, National Center for Atmospheric Research, Earth Observing Laboratory

Graduated Advisors:

- M.S. – Dr. Wayne Schubert, Colorado State University
 - Ph.D. – Dr. William Cotton, Colorado State University