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Professional Experience

1970-1975, Student worker with NOAA Aeronomy Laboratory Radar Group
1975-1981, engineer with NOAA Aeronomy Laboratory Radar Group
1981-1986, Site engineer and manager of NOAA Poker Flat MST radar, Fairbanks, Alaska
1986-1990, Project Manager/Systems Engineer, Tycho Technology, Boulder, Colorado
1990-1995, CIRES Professional Research Assistant assigned to Tropical Dynamics and Climate group of NOAA Aeronomy Laboratory
1995-2006, CIRES Senior Professional Research Assistant assigned to Tropical Dynamics and Climate group of NOAA Aeronomy Laboratory and ESRL Physical Sciences Division. My primary function is the utilization of the PSD5 wind profilers and precipitation profiling radars to acquire high quality data about the atmosphere. This has included deployment of wind profilers in TOGA COARE, TEPPS, EPIC, TRMM TEFLUN A, TRMM TEFLUN B, KWAJEX, NAURU99, and in the NOAA TPPN tropical network.
2006-present, CIRES Senior Professional Research Assistant in NOAA ESRL Physical Sciences Division Water Cycle Branch. My primary function is development and deployment of Snow Level Radar systems.

Education

B.S.E.E. University of Colorado, 1975
M.S. Space Physics and Atmospheric Science, University of Alaska-Fairbanks, 1986

Awards

U. S. Department of Commerce Silver Medal Group Award, 1983, for wind profiler development
U. S. Department of Commerce Bronze Medal Group Award, 1997, for wind profiler deployment on the NOAA Ship Ka'imimoana

Research Interests

Radar instrumentation and signal processing
Applications of radars for atmospheric research, especially for atmospheric dynamics

Partial Publications List

Johnston, P.E., J.S. Wilson, and W.L. Ecklund, Sept. 1994: A Solar-powered 915 MHz Wind Profiler, Third International Symposium on Tropospheric Profiling: Needs and Technologies, 351-353.
P. E. Johnston, L. M. Hartten, C. H. Love, D. A. Carter and K. S. Gage, 2002: Range errors in wind

profiling caused by strong reflectivity gradients, *J. Atmos. Oceanic Tech.*, Vol. 19, pp. 934-953.

P. T. May, A. R. Jameson, T. D. Keenan, P. E. Johnston and C. Lucas, Combined wind profiler/polarimetric radar studies of the vertical motion and microphysical characteristics of tropical sea breeze thunderstorms 2002: *Mon. Weather Rev.*, Vol. 130, pp. 2228-2239, .

K. S. Gage, C. R. Williams, W. L. Clark, P. E. Johnston and D. A. Carter, 2002: Profiler contributions to Tropical Rainfall Measuring Mission (TRMM) Ground Validation Field Campaigns, *J. Atmos. Oceanic Tech.*, Vol. 19, pp. 843-863.

P. E. Johnston, L. M. Hartten, C. H. Love, D. A. Carter and K. S. Gage, 2002: Range errors in wind profiling caused by strong reflectivity gradients, *J. Atmos. Oceanic Tech.*, Vol. 19, pp. 934-953.

Ecklund, W.L., P.E. Johnston, J.M. Warnock, W.L. Clark, and K.S. Gage, Oct. 1995: An S-Band profiler for tropical precipitating cloud studies, Preprint volume of the 27th conference on Radar Meteorology, Vail, CO.

Gage, K.S., C.R. Williams, P.E. Johnston, W.B. Maquire, W.L. Ecklund, P.T. May and K. Glasson, Oct. 1995: Deep convection at Darwin, Australia observed by wind-profiling doppler radars, Preprint volume of the 27th conference on Radar Meteorology, Vail, CO.

P. T. May, A. R. Jameson, T. D. Keenan, P. E. Johnston and C. Lucas, Combined wind profiler/polarimetric radar studies of the vertical motion and microphysical characteristics of tropical sea breeze thunderstorms 2002: *Mon. Weather Rev.*, Vol. 130, pp. 2228-2239,

Carter, D.A., K.S. Gage, W.L. Ecklund, W.M. Angevine, P.E. Johnston, A.C. Riddle, J. Wilson, and C.R. Williams, July-August 1995: Developments in UHF lower tropospheric wind profiling, at NOAA's Aeronomy Laboratory, Radio Science, 30, 977-1001.

Riddle A. C., **L. M. Hartten**, **D. A. Carter**, **P. E. Johnston** and **C. R. Williams** (July 2012): A Minimum Threshold for Wind Profiler Signal-to-Noise Ratios. *J. Atmos. Ocean. Tech.*, **29** (7), 889-895. doi:[10.1175/JTECH-D-11-00173.1](https://doi.org/10.1175/JTECH-D-11-00173.1)

Tjernström M., C. Leck, C. E. Birch, . . . , **P. E. Johnston**, . . . , **P. O. G. Persson**, . . . , **M. D. Shupe**, et al. (March 2014): The Arctic Summer Cloud Ocean Study (ASCOS): overview and experimental design. *Atmos. Chem. Phys.*, **14** (6), 2823-2869. doi:[10.5194/acp-14-2823-2014](https://doi.org/10.5194/acp-14-2823-2014)

White A. B., M. L. Anderson, M. D. Dettinger, **F. M. Ralph**, . . . , **D. W. Reynolds**, **L. E. Johnson**, **R. Cifelli**, Z. Toth, S. I. Gutman, **C. W. King**, F. Gehrke, **P. E. Johnston**, C. Walls, D. Mann, **D. J. Gottas** and **T. Coleman** (August 2013): A Twenty-First-Century California Observing Network for Monitoring Extreme Weather Events. *J. Atmos. Ocean. Technol.*, **30** (8), 1585-1603. doi:[10.1175/JTECH-D-12-00217.1](https://doi.org/10.1175/JTECH-D-12-00217.1)