

Paul D. Reasor

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Curriculum Vitae
February 2014

BIOGRAPHICAL DATA

Birthdate: September 11, 1972
Place of Birth: Escondido, CA

EDUCATION

Ph.D. Atmospheric Science, Colorado State University, Summer 2000
Dissertation title: Horizontal Vorticity Redistribution and Vortex Alignment in Developing and Mature Tropical Cyclones
Thesis advisor: Professor Michael T. Montgomery

M.S. Atmospheric Science, Colorado State University, Fall 1996
Thesis title: Circumpolar Vortex Studies Using MSU Temperature Data
Thesis advisor: Professors Michael T. Montgomery and Wayne H. Schubert

B.A. Physics, University of California at Berkeley, Fall 1993

PROFESSIONAL POSITIONS

Dec 2009 – present: Research Meteorologist
NOAA/AOML Hurricane Research Division

Aug 2003 – Dec 2009: Assistant Professor
Dept. of Meteorology, Florida State University

May 2002 – July 2003: Postdoctoral research associate/Research scientist
Dept. of Atmospheric Science, Colorado State University

Sept 2001 – Apr 2002: Research associate at HRD through U. Miami's
Cooperative Institute for Marine and Atmospheric Studies

Sept 2000 – Aug 2001: Postdoctoral research associate
National Research Council, Hurricane Research Division

Jun 2000 – Aug 2000: Postdoctoral research associate
Dept. of Atmospheric Science, Colorado State University

Jun 1994 – May 2000: Graduate research assistant
Dept. of Atmospheric Science, Colorado State University

PROFESSIONAL ORGANIZATIONS

American Meteorological Society

PUBLICATIONS (Peer Reviewed)

- Uhlhorn, E., B. Klotz, T. Vukicevic, P. Reasor, R. Rogers, 2014: Observed hurricane wind speed asymmetries and relationships to motion and environmental shear. *Mon. Wea. Rev.*, in press.
- Vukicevic, T., E. Uhlhorn, P. Reasor, B. Klotz, 2014: A novel multi-scale intensity metric for evaluation of tropical cyclone intensity forecasts. *J. Atmos. Sci.*, in press.
- Zhang, J. A., R. F. Rogers, P. D. Reasor, E. W. Uhlhorn, F. D. Marks, 2013: Asymmetric Hurricane Boundary Layer Structure from Dropsonde Composites in Relation to the Environmental Vertical Wind Shear. *Mon. Wea. Rev.*, **141**, 3968–3984.
- Vukicevic, T., A. Aksoy, P. Reasor, S. D. Aberson, K. J. Sellwood, F. Marks, 2013: Joint Impact of Forecast Tendency and State Error Biases in Ensemble Kalman Filter Data Assimilation of Inner-Core Tropical Cyclone Observations. *Mon. Wea. Rev.*, **141**, 2992–3006.
- Reasor, P. D., R. Rogers, S. Lorsolo, 2013: Environmental Flow Impacts on Tropical Cyclone Structure Diagnosed from Airborne Doppler Radar Composites. *Mon. Wea. Rev.*, **141**, 2949–2969.
- Rogers, R., P. Reasor, S. Lorsolo, 2013: Airborne Doppler Observations of the Inner-Core Structural Differences between Intensifying and Steady-State Tropical Cyclones. *Mon. Wea. Rev.*, **141**, 2970–2991.
- Rogers, R., and Coauthors, 2013: NOAA'S Hurricane Intensity Forecasting Experiment: A Progress Report. *Bull. Amer. Meteor. Soc.*, **94**, 859–882.
- Reasor, P. D., M. D. Eastin, 2012: Rapidly Intensifying Hurricane Guillermo (1997). Part II: Resilience in Shear. *Mon. Wea. Rev.*, **140**, 425–444.
- Rogers, R., S. Lorsolo, P. Reasor, J. Gamache, F. Marks, 2012: Multiscale Analysis of Tropical Cyclone Kinematic Structure from Airborne Doppler Radar Composites. *Mon. Wea. Rev.*, **140**, 77–99.
- Guimond, S. R., M. A. Bourassa, P. D. Reasor, 2011: A Latent Heat Retrieval and Its Effects on the Intensity and Structure Change of Hurricane Guillermo (1997). Part I: The Algorithm and Observations. *J. Atmos. Sci.*, **68**, 1549–1567.
- Braun, S. A., M. T. Montgomery, K. J. Mallen, P. D. Reasor, 2010: Simulation and Interpretation of the Genesis of Tropical Storm Gert (2005) as Part of the NASA Tropical Cloud Systems and Processes Experiment. *J. Atmos. Sci.*, **67**, 999–1025.
- Reasor, P. D., M. Eastin, and J. Gamache, 2009: Rapidly intensifying Hurricane Guillermo (1997). Part I: Low-wavenumber structure and evolution. *Mon. Wea. Rev.*, **137**, 603–631.
- Gierach, M. M., M. A. Bourassa, P. Cunningham, J. J. O'Brien, and P. D. Reasor, 2007: Vorticity-based detection of tropical cyclogenesis. *J. Appl. Meteor. and Climatology*, **46**, 1214–1229.
- Reasor, P. D., M. T. Montgomery, and L. F. Bosart, 2005: Mesoscale observations of the genesis of Hurricane Dolly (1996). *J. Atmos. Sci.*, **62**, 3151–3171.
- Reasor, P. D., M. T. Montgomery, and L. D. Grasso, 2004: A new look at the problem of tropical cyclones in vertical shear: Vortex resiliency. *J. Atmos. Sci.*, **61**, 3–22.
- Schechter, D. A., M. T. Montgomery, and P. D. Reasor, 2002: A Theory for the vertical alignment of a quasigeostrophic vortex. *J. Atmos. Sci.*, **59**, 150–168.

- Reasor, P. D., and M. T. Montgomery, 2001: Three-dimensional alignment and corotation of weak, TC-like vortices via linear vortex Rossby waves. *J. Atmos. Sci.*, **58**, 2306–2330.
- Reasor, P. D., M. T. Montgomery, and F. D. Marks, J. F. Gamache, 2000: Low-wavenumber structure and evolution of the hurricane inner core observed by airborne dual-Doppler radar. *Mon. Wea. Rev.*, **128**, 1653–1680.
- Reasor, P. D., and M. T. Montgomery, 1999: Diagnosing the QBO’s influence on circumpolar vortex variability using MSU brightness temperatures and MSU-derived winds. *Mon. Wea. Rev.*, **127**, 46–56.

CONTRACTS AND GRANTS

- “Improved analysis and understanding of the meteorology underlying the various components of the hurricane risk problem.” Florida Catastrophic Storm Risk Management Center, Dec 2008 – 2009, (Drs. R. Hart and H. Fuelberg, co-PIs).
- “Collaborative research: Impact of externally and internally modulated convection on tropical cyclone evolution.” NSF ATM-0514199, Sept 2005 – 2008, (Dr. M. Eastin, co-PI).
- “Early stages of tropical cyclone genesis in the Pacific Ocean.” NASA NNG05GR54G, Oct 2005 – 2009, (Drs. M. Bourassa and P. Cunningham, co-PIs).
- “A theoretical and observational study of midlatitude MCVs in vertical shear.” NSF ATM-0305412, Apr 2003 – 2006, (Dr. M. Montgomery, PI).

SYNERGISTIC ACTIVITIES

- Field Program Director for HRD’s Hurricane Field Program: 2013, 2014
- Associate Editor, *Journal of the Atmospheric Sciences*, 2006 – 2009
- Reviewer: *Journal of the Atmospheric Sciences*, *Monthly Weather Review*, *Quarterly Journal of the Royal Meteorological Society*, *Journal of Atmospheric and Oceanic Technology*, *Atmospheric Chemistry and Physics*, National Science Foundation

HONORS AND AWARDS

- 2000 NRC Postdoctoral Fellowship
- 1999 Outstanding GRA Award, College of Engineering, Colorado State University

TEACHING (Florida State University)

Met1010	Undergraduate	Introduction to the Atmosphere
Met4301	Undergraduate	Atmospheric Dynamics I
Met4302	Undergraduate	Atmospheric Dynamics II
Met5311	Graduate	Advanced Dynamic Meteorology I
Met5312	Graduate	Advanced Dynamic Meteorology II
Met6308	Graduate	Vortex Dynamics
Met6561	Graduate	Advanced Hurricanes

MENTORING

GRADUATES (Florida State University):

Elizabeth Minter (M.S. 2007) “QuikSCAT-derived near-surface vorticity during tropical cyclogenesis”

Lauren Davison (M.S. 2007) “Estimating the Surface Wind Field of Hurricanes”

Christopher Morrow (M.S. 2008) “An expanding database of dual-Doppler tropical cyclone observations”

Jessica Fieux (M. S. 2008) “Using airborne Doppler radar data to examine eyewall angular momentum budgets”

Stephen Guimond (Ph.D. 2010) “Tropical cyclone inner-core dynamics: A latent heat retrieval and its effects on intensity and structure change; and the impacts of effective diffusion on the axisymmetrization process” (Advised by Dr. Mark Bourassa after 2009)

David Ryglicki (Ph.D. 2011) “The evolution of barotropically unstable, high-Rossby number vortices in shear” (Advised by Dr. Robert Hart after 2009)

NOAA MENTOR:

Aryeh Drager (Hollings, 2011)

Zach Gruskin (Hollings, 2011)