

Kyle S. Griffin

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Education

B.S. Atmospheric Science (Honors), University at Albany, SUNY, May 2010

Advisor: Dr. Lance Bosart

Thesis topic: A climatology of extratropical transition in the Southwest Indian Ocean.

M.S. Atmospheric Science, University at Albany, SUNY, December 2012.

Advisor: Dr. Lance Bosart

Thesis topic: Large-scale influences on the genesis of Tropical Cyclone Karl (2010).

Ph.D. Atmospheric and Oceanic Sciences, University of Wisconsin – Madison, anticipated spr. 2016.

Advisor: Dr. Jonathan Martin

Thesis topic: Variability in the mid-latitude jet stream over the North Pacific Ocean.

Professional Experience

Student Volunteer, NCEP/Hydrometeorological Prediction Center (*now Weather Prediction Center*)
January 2007 – January 2008

Aided in preliminary reanalysis of storms for potential inclusion in HURDAT

Received training on short range forecast and North American surface analysis desks

Student Intern (SCEP), NCEP/Hydrometeorological Prediction Center (*now Weather Prediction Center*)

May 2008 – November 2010

Work full-time position when not attending university

Developed tool for finding analogs used in preparing QPFs associated with tropical cyclones

Worked rotating operational shifts on both the surface analysis and short range forecast desks

Received certification on surface analysis desk (work desk without supervision and train others)

Student Intern, NWS Forecast Office Albany, NY

January 2009 – May 2009

Passed DLOC testing (interpretation of NEXRAD radar products); learned usage of AWIPS

Performed and quality controlled upper air balloon launches

Issued climate and short-range forecast products

Teaching Assistant, University at Albany/SUNY, Albany, NY

Fall 2010 (ATM 305, Introduction to Geophysical Fluid Dynamics)

Assisted in lectures, providing review sessions for students, and giving substitute lectures.

Spring 2011 (ATM 421, Tropical Meteorology)

Graded quiz and homework assignments, provided review sessions, gave a substitute lecture.

Teaching Assistant, University of Wisconsin-Madison, Madison, WI

Spring 2013, Spring 2014 (AOS 101, Introduction to Weather and Climate)

Independently led 25-student lab section, created hands-on lectures, weekly assignments, and

long-term projects.

Fall 2014 (AOS 102, Climate and Climate Change)

Led 40 students in online-only course. Created content for and graded weekly discussion posts, quizzes, and projects.

Research Meteorologist, Riskpulse, Austin, TX (formerly EarthRisk Technologies, San Diego, CA)

April 2015 – present

Investigate subseasonal to seasonal relationships for use in forecasting in energy and agriculture
Lead selected research projects, prepare research proposals for potential clients

Active reviewer for peer-reviewed literature since 2014, including *Monthly Weather Review* and *Geophysical Research Letters*

Peer-Reviewed Publications

Evans, C., H. Archambault, J. Cordeira, C. Fritz, T. Galarneau, Jr., S. Gjorgjievska, **K. Griffin**, A. Johnson, W. Komaromi, S. Monette, P. Muradyan, B. Murphy, M. Riemer, J. Sears, D. Stern, B. Tang, and S. Thompson, 2012: The PRE-Depression Investigation of Cloud-systems in the Tropics (PREDICT) Field Campaign: Perspectives of Early Career Scientists. *Bull. Amer. Meteor. Soc.*, **93**, 173–187.

Monette, S., C. Velden, **K. Griffin**, and C. Rozoff, 2012: Examining Trends in Satellite-Detected Overshooting Tops for Prediction of Tropical Cyclone Rapid Intensification. *J. Appl. Meteor.*, **51**, 1917-1930.

Griffin, K. S. and L. F. Bosart, 2014: The Extratropical Transition of Tropical Cyclone Edisoana (1990). *Mon. Wea. Rev.*, **142**, 2772–2793.

Griffin, K. S. and J. E. Martin, 2016a: Synoptic features associated with temporally coherent modes of variability of the North Pacific jet stream. *Submitted to Journal of Climate, in revision.*

Griffin, K. S. and J. E. Martin, 2016b: Isentropic pressure depth as a tool to investigate tropical-extratropical interactions. *In preparation, to be submitted Spring 2016.*

Seminar Presentations

Griffin, K. S. and L. F. Bosart, 2010: A climatology of extratropical transition in the Southwest Indian Ocean. Undergraduate thesis defense, University at Albany, 3 May 2010, Albany, NY.

Griffin, K. S. and L. F. Bosart, 2012: Large-scale influences on the genesis of Tropical Cyclone Karl (2010). Master's thesis defense, University at Albany, 18 July 2012, Albany, NY.

Griffin, K. S. and L. F. Bosart, 2012: Large-scale influences on the genesis of Tropical Cyclone Karl (2010). Department Seminar, University of Wisconsin-Madison, 19 September 2012, Madison, WI.

Griffin, K. S. and L. F. Bosart, 2012: Five Linked September 2011 Northern Hemisphere Tropical Cyclones: Talas, Noru, Lee, Nate, and Katia. Department Seminar, University of Wisconsin-Madison, 26 September 2012, Madison, WI.

Griffin, K. S. and L. F. Bosart, 2013: Mid-latitude Influences on Extratropical Transition in the Southwest Indian Ocean. Department Seminar, University of Wisconsin-Madison, 20 February 2013, Madison, WI.

Griffin, K. S., 2013: Convectively Coupled Kelvin Waves and Interactions with Tropical Cyclones. Seminar, National Hurricane Center, 25 April 2013, Miami, FL.

Griffin, K. S. 2014: The influence of west Pacific tropical cyclones on north Pacific jet variability. Department Seminar, University of Wisconsin-Madison, 22 October 2014, Madison, WI.

First-Author Oral Presentations

Griffin, K. S. and L. F. Bosart, 2010: A preliminary climatology of extratropical transition in the southwest Indian Ocean. 35th Northeastern Storm Conference, 5-7 March 2010, Saratoga Springs, NY.

Griffin, K.S., 2010: A climatology of extratropical transition in the Southwest Indian Ocean. 29th Conference on Hurricanes and Tropical Meteorology, 10-14 May 2010, Tucson, AZ.

Griffin, K. S. and L. F. Bosart, 2011: The extratropical transition of TC Edisoana (1990) in the Southwest Indian Ocean. 36th Northeastern Storm Conference, 11-13 March 2011, Taunton, MA.

Griffin, K. S. and L. F. Bosart, 2011: The extratropical transition of TC Edisoana (1990) in the Southwest Indian Ocean. 15th Cyclone Workshop, 27 March-1 April 2011, Pacific Grove, CA.

Griffin, K. S. and L. F. Bosart, 2011: Extratropical transition in the Southwest Indian Ocean. Northeast Tropical Workshop, 17-19 May 2011, Dedham, MA.

Griffin, K. S. and L. F. Bosart, 2011: An examination of science opportunities during PREDICT. First PREDICT Workshop, 8-10 June 2011, Monterey, CA.

Griffin, K. S., and L. F. Bosart, 2012: Large Scale Influences on the Genesis of Hurricane Karl. 37th Annual Northeastern Storm Conference, 2-4 March 2012, Rutland, VT.

Griffin, K. S., and L. F. Bosart, 2012: Large Scale Influences on the Genesis of Hurricane Karl. 30th Conference on Hurricanes and Tropical Meteorology, 15-20 April 2012, Ponte Vedra Beach, FL.

Griffin, K. S., and L. F. Bosart, 2012: Mid-latitude Influences on Extratropical Transition in the Southwest Indian Ocean, 21-25 May 2012, Sainte-Adèle, QC, Canada.

Griffin, K. S., and L. F. Bosart, 2012: Large Scale Influences on the Genesis of Hurricane Karl. 25th Conference on Weather Analysis and Forecasting, 29 May – 1 June 2012, Montreal, QC, Canada.

Griffin, K. S. and L. F. Bosart, 2013: Large Scale Influences on the Genesis of Hurricane Karl. Special Symposium on the Next Level of Predictions in Tropical Meteorology: Techniques, Usage, Support, and Impacts. 5-10 January 2013, Austin, TX.

Griffin, K. S. and J. E. Martin, 2013: Examining Preferred Modes of Intraseasonal Variability of the North Pacific Jet. 16th Cyclone Workshop, 23-27 September 2013, Sainte-Adèle, QC, Canada.

Griffin, K. S. and J. E. Martin, 2014: Isentropic perturbation pressure depth as a tool for analyzing tropical-extratropical interactions. 31st Conference on Hurricanes and Tropical Meteorology, 31 March – 4 April 2014, San Diego, CA.

Griffin, K. S., 2014: Pacific Storms' Influence on Weather Patterns. (Invited) 13th Annual Energy Conference for Traders and Analysts (MDA), 15 – 17 October, Las Vegas, NV.

Griffin, K. S., A. C. Winters, M. Mooney, and S. Ackerman, 2015: The effect of interactive online pre-lab modules on improving student learning in an introductory atmospheric science course. 24th Symposium on Education, 4 – 8 January 2015, Phoenix, AZ.

Griffin, K. S. and J. E. Martin, 2015: Isentropic pressure depth as a tool for analyzing tropical-extratropical interactions. 17th Cyclone Workshop, 26 – 30 October 2015, Pacific Grove, CA.

Poster Presentations

Griffin, K. S., L. F. Bosart, and M. J. Ventrice, 2012: Large Scale Influences on the Genesis of Hurricane Karl. T.N. Krishnamurti Symposium, 26 January 2012, New Orleans, LA.

Griffin, K. S., and L. F. Bosart, 2012: Large Scale Influences on the Genesis of Hurricane Karl. AGU Fall Meeting, 3-7 December 2012, San Francisco, CA.

Griffin, K. S., S. K. Yeo, Z. Handlos, A. Karambelas, L. Y. F. Su, J. Doolen, and D. Brossard, 2014: The influence of weather on Twitter discourse of #ClimateChange and #GlobalWarming. 27th Conference on Severe Local Storms, 3-7 November 2014, Madison, WI.

Public Outreach

Trained in the use of a rotating tank system, used to perform idealized demonstrations of dynamic meteorology principles. Have performed demonstrations at UW-Madison public Science days and local high school science classrooms.

Volunteer for weekend weather exhibits in “Wild about Weather” month at Aldo Leopold Nature Center, interacting with the members of the public ranging from young children to adults.

Skills

Proficient in installation, maintenance, and usage of Windows and UNIX-based operating systems. Skilled in use of GEMPAK, NCL, Python, shell scripting, MATLAB, cron, as well as utilizing, processing, and creating various gridded datasets in GRIB, GRIB2, netCDF, and GEMPAK formats. Have also programmed in C++, Java, Perl, Tcl/Tk, HTML, JavaScript, and PHP. Have built, compiled, and run local versions of the WRF model.

Created, maintain, and upgrade a real-time weather forecasting and analysis website producing diagnostic graphics from GFS model data, producing over 8,000 images for each 6-hourly cycle. Web site available at <http://www.atmos.albany.edu/student/kgiffin/maps/> and <http://aos.wisc.edu/dynamaps> (second page under construction).

Professional Organizations

American Meteorological Society, student member, 2007-present

Member of the Capital Region AMS local chapter 2007-2010, officer during 2009-2010

Royal Meteorological Society, student member, 2009-2013

American Geophysical Union, student member, 2012-2013