

VITAE
Philip J. Klotzbach

a. Professional Preparation

Bridgewater State College	B.S. in Geography	1999 - 4.0 GPA
Colorado State University	M.S. in Atmospheric Science	2002 - 3.7 GPA
Colorado State University	Ph. D. in Atmospheric Science	2007 - 4.0 GPA

b. Academic Honors

Graduated #1 in Class of 1999 - approximately 1250 graduates
NCAA Academic All-American
Male Scholar Athlete of the Year
Outstanding Student in Earth Sciences and Geography
Gamma Theta Upsilon member - Geography Honors Society

c. Publications

Klotzbach, P. J. and W. M. Gray, 2003: Forecasting September Atlantic basin tropical cyclone activity. *Wea. and Forecasting*, **18**, 1109-1128.

Klotzbach, P. J. and W. M. Gray, 2004: Updated 6-11-month prediction of Atlantic basin seasonal hurricane activity. *Wea. and Forecasting*, **19**, 917-934.

Klotzbach, P. J. and W. M. Gray, 2005: Summary of 2004 Atlantic basin tropical cyclone activity and verification of seasonal forecasts. *Shore and Beach*, **73**, 20-24.

Klotzbach, P. J., 2006: Trends in global tropical cyclone activity over the past twenty years (1986–2005), *Geophys. Res. Lett.*, **33**, L10805, doi:10.1029/2006GL025881.

Klotzbach, P. J. and W. M. Gray, 2006: Causes of the unusually destructive 2004 Atlantic basin hurricane season. *Bull. Amer. Meteor. Soc.*, **87**, 1325-1333.

Klotzbach, P. J., 2007: Recent developments in statistical prediction of seasonal Atlantic basin tropical cyclone activity. *Tellus A*, **59**, 511-518.

Klotzbach, P. J., 2007: Revised prediction of seasonal Atlantic basin tropical cyclone activity from 1 August. *Wea. and Forecasting*, **22**, 937-949.

Camargo, S. J., A. G. Barnston, P. J. Klotzbach and C. W. Landsea, 2007: Seasonal tropical cyclone forecasts. *WMO Bull.*, **56**, 297-309.

Klotzbach, P. J. and W. M. Gray, 2008: Multi-decadal variability in North Atlantic tropical cyclone activity. *J. Climate*, **21**, 3929-3935.

Klotzbach, P. J., 2008: Refinements to Atlantic basin seasonal hurricane prediction from 1 December. *J. Geophys. Res.*, **113**, D17109, doi:10.1029/2008JD010047.

Klotzbach, P. J. and W. M. Gray, 2009: 25 years of Atlantic basin seasonal hurricane forecasts. *Geophys. Res. Lett.*, **36**, L09711, doi:10.1029/2009GL037580.

Klotzbach, P. J., R. A. Pielke Sr., R. A. Pielke Jr., J. Christy, R. McNider, 2009: An alternative explanation for differential temperature trends at the surface and in the lower troposphere. *J. Geophys. Res.*, **114**, D21102, doi:10.1029/2009JD011841.

Grossmann, I., and P. J. Klotzbach, 2009: A review of North Atlantic modes of natural variability and their driving mechanisms. *J. Geophys. Res.*, **114**, D24107, doi:10.1029/2009JD012728.

Klotzbach, P. J., 2010: On the Madden-Julian oscillation – Atlantic hurricane relationship. *J. Climate*, **23**, 282-293.

Christy, J. R., B. Herman, R. Pielke Sr., P. J. Klotzbach, R. T. McNider, J. Hnilo, R. W. Spencer, T. Chase, and D. Douglass, 2010: What do observational datasets say about modeled tropospheric temperature trends since 1979? *Remote Sensing*, **2**, 2148-2169, doi:10.3390/rs2092148.

Klotzbach, P. J., 2011: The influence of El Niño – Southern Oscillation and the Atlantic Multi-decadal Oscillation on Caribbean tropical cyclone activity. *J. Climate*, **24**, 721-731, doi:10.1175/2010JCLI3705.1.

Klotzbach, P. J., 2011: El Niño – Southern Oscillation's Impact on Atlantic Basin hurricanes and U.S. landfalls. *J. Climate*, **24**, 1252-1263, doi:10.1175/2010JCLI3799.1.

Klotzbach, P. J., 2011: A simplified Atlantic basin seasonal hurricane prediction scheme from 1 August. *Geophys. Res. Lett.*, **38**, L16710, doi:10.1029/2011GL048603.

Klotzbach, P. J., 2011: Forecasting October-November Caribbean hurricane days. *J. Geophys. Res.*, **116**, D18117, doi:10.1029/2011JD016146.

Klotzbach, P. J., 2012: El Niño-Southern Oscillation, the Madden-Julian Oscillation and Atlantic basin tropical cyclone rapid intensification. *J. Geophys. Res.*, **117**, D14104, doi:10.1029/2012JD017714.

Klotzbach, P. J. and E. S. Blake, 2013: North Central Pacific tropical cyclones: Impacts of El Niño-Southern Oscillation and the Madden-Julian Oscillation. *J. Climate*, **26**, 7720-7733.

Klotzbach, P. J., 2014: The Madden-Julian Oscillation's impacts on worldwide tropical cyclone activity. *J. Climate*, **27**, 2317-2330.

Klotzbach, P. J., 2014: Prediction of seasonal Atlantic basin accumulated cyclone energy from 1 July. *Wea. Forecasting*, **29**, 115-121.

Klotzbach, P. J., and E. C. J. Oliver, 2015: Modulation of Atlantic basin tropical cyclone activity by the Madden-Julian Oscillation (MJO) from 1905-2011, *J. Climate*, **28**, 204-217.

Klotzbach, P. J., and E. C. J. Oliver, 2015: Variations in global tropical cyclone activity and the Madden-Julian Oscillation since the mid-20th century, *Geophys. Res. Lett.*, in press.

Klotzbach, P. J., and C. W. Landsea, 2015: Extremely intense hurricanes: Revisiting Webster et al. (2005) after 10 years, in revision, *J. Climate*.

Walsh, K. J., J. L. McBride, P. J. Klotzbach, S. Balachandran, S. J. Camargo, G. Holland, T. R. Knutson, J. Kossin, T.-C. Lee, and A. Sobel, 2015: Tropical cyclones and climate change, manuscript submitted to *WIREs Climate Change*.

d. Book Chapters

S. J. Camargo, A. H. Sobel, A. G. Barnston, and P. J. Klotzbach, 2010. The influence of natural climate variability, and seasonal forecasts of tropical cyclone activity. Chapter 11 in “Global Perspectives on Tropical Cyclones: From Science to Mitigation”, J. C. L. Chan and J.D. Kepert, Eds., 36 pp.

Gray, W. M., and P. J. Klotzbach, 2011: Have increases in CO₂ contributed to the recent large upswing in Atlantic basin major hurricanes since 1995? Chapter 9 in “Evidence-Based Climate Science”, D. Easterbrook, Ed., Elsevier Press, 27 pp.

Klotzbach, P. J., A. Barnston, G. D. Bell, S. Camargo, J. C. L. Chan, A. Lea, M. Saunders, and F. Vitart, 2015: Seasonal forecasting of tropical cyclones. Chapter in “Global Guide to Tropical Cyclone Forecasting”, C. Guard, Ed., 28 pp.

Klotzbach, P. J., M. A. Saunders, G. D. Bell, and E. S. Blake, 2015: Statistically-based North Atlantic seasonal hurricane forecasts. Chapter submitted for publication in “Patterns of Climate Extremes: Trends and Mechanisms”, S. Wang, Ed., 30 pp.

e. Bulletin of the American Meteorological Society Sidebars

Fogarty, C. T., and P. J. Klotzbach, 2014: The 2013 Atlantic basin hurricane season: Blip or flip? *Bull. Amer. Meteor. Soc.*, **95**, S106-S107.

Klotzbach, P. J., and C. T. Fogarty, 2015: 2013 vs. 2014 Atlantic hurricane activity – A brief comparison of two below-average seasons, manuscript submitted as sidebar to *Bull. Amer. Meteor. Soc.*

f. Synergistic Activities

I have worked with Dr. William Gray on seasonal hurricane forecasts since 2000, and these forecasts have received attention from both the national and international media. I became the lead author on the seasonal hurricane forecasts in 2006. I serve on the editorial board for *Scientific Reports* and also serve as the chair of the World Meteorological Organization's panel on seasonal hurricane prediction. I serve as a member of the review panel for the National Research Council's Research Associates Program. I have been an invited speaker at the National Hurricane Conference, the Florida Governor's Hurricane Conference, the Bahamas Weather Conference and several energy and insurance-related conferences.