

## Gary M. Lackmann

North Carolina State University  
Department of Marine, Earth, and Atmospheric Sciences  
Raleigh, North Carolina, 27695-8208  
Telephone: (919) 515-1439

### A. Professional Preparation:

University at Albany, State University of New York	Atmospheric Science	Ph.D.	1995
University of Washington	Atmospheric Science	M.S.	1989
University of Washington	Atmospheric Science	B.S.	1986

### B. Professional Appointments

North Carolina State University, Raleigh, NC	<i>Associate Professor</i>	2004 – present
North Carolina State University, Raleigh, NC	<i>Assistant Professor</i>	1999 – 2004
State University of New York, College at Brockport, NY	<i>Assistant Professor</i>	1996 – 1999
McGill University, Montreal, Quebec, Canada.	<i>Postdoctoral Scientist</i>	1995 – 1996
Naval Postgraduate School, Monterey, CA	<i>Physical Scientist</i>	1988 – 1989
NOAA/Pacific Marine Environmental Lab., Seattle, WA	<i>Physical Scientist</i>	1985 – 1988.

### C. Refereed Publications:

#### (i) 5 Recent Publications:

Hill, K. A., and G. M. Lackmann, 2009: Analysis of idealized tropical cyclone simulations using the Weather Research and Forecasting Model: Sensitivity to turbulence parameterization and grid spacing. *Mon. Wea. Rev.* **137**, 745–765.

Keighton, S., L. Lee, B. Holloway, D. Hotz, S. Zubrick, J. Hovis, G. Votaw, L. B. Perry, G. Lackmann, S. Yuter, C. Konrad, D. Miller, B. Etherton, 2009: A Collaborative Approach to Study Northwest Flow Snow in the Southern Appalachians *Bull. Amer. Meteor. Soc.* 2009 early online release, posted March 2009.

Brennan, M. J., G. M. Lackmann, and K. M. Mahoney, 2008: Potential Vorticity (PV) Thinking in Operations: The Utility of Nonconservation. *Wea. Forecasting* **23**, 168–182.

Mahoney, K. M., and G. M. Lackmann, 2007: The Effect of Upstream Convection on Downstream Precipitation. *Wea. Forecasting*, **22**, 255–277.

Mahoney, K. M., and G. M. Lackmann, 2006: The Sensitivity of Numerical Forecasts to Convective Parameterization: A Case Study of the 17 February 2004 East Coast Cyclone. *Wea. Forecasting*, **21**, 465–488.

#### (ii) 5 additional selected publications:

Lackmann, G. M., K. Keeter, L. G. Lee, and M. B. Ek, 2002: Model representation of freezing and melting precipitation: Implications for winter weather forecasting. *Wea. Forecasting*, **17**, 1016–1033.

Brennan, M. J., and G. M. Lackmann, 2005: The influence of incipient latent heat release on the precipitation distribution of the 24–25 January 2000 U.S. East Coast cyclone. *Mon. Wea. Rev.*, **133**, 1913–1937.

Lackmann, G. M., and R. M. Yablonsky, 2004: On the role of the precipitation mass sink in tropical cyclogenesis. *J. Atmos. Sci.*, **61**, 1674–1692.

Reeves, H. D., and G. M. Lackmann, 2004: The effects of diabatic processes on cold-frontal propagation. *Mon. Wea. Rev.*, **132**, 2864–2881.

Lackmann, G. M. 2002: Potential vorticity redistribution, the low-level jet, and moisture transport in extratropical cyclones. *Mon. Wea. Rev.*, **130**, 59–74.

### D. Synergistic Activities:

- Since fall 2006, Dr. Lackmann has chaired the Unidata Users Committee, and was co-chair of the Unidata Summer Workshop in 2006. He also serves on the Unidata Policy Committee.
- Dr. Lackmann is currently serving as the faculty advisor for the NC State Student AMS Chapter, and is active in promoting professional activity among undergraduate and graduate students at NC State.
- Dr. Lackmann is currently a subject-area editor for the *Bulletin of the AMS* (mesoscale meteorology and NWP), has recently been a member of the AMS Weather Analysis & Forecasting Committee, and served as an Associate Editor for the publication *Monthly Weather Review*; Dr. Lackmann received the 2002 Editor's Award for this journal. Additionally, Dr. Lackmann has reviewed papers for *Weather and Forecasting*, *Journal of Applied Meteorology*, *Quarterly Journal of the Royal Meteorological Society*, *Meteorology and Atmospheric Physics*, *Atmosphere–Ocean*, and *Tellus*.

### **E. Collaborators and Other Affiliations:**

#### (i.) Collaborators (past co-authors, co-PIs, or research collaborators):

Dr. Michael Brennan	Tropical Prediction Center
Dr. Mike Ek	National Centers for Environmental Prediction
Dr. Brad Ferrier	National Centers for Environmental Prediction
Dr. Fedor Mesinger	National Centers for Environmental Prediction
Dr. Jack Kain	National Severe Storms Lab
Dr. Anantha Aiyyer	North Carolina State University
Dr. Rouying He	North Carolina State University
Dr. Matt Parker	North Carolina State University
Dr. Sethu Raman	North Carolina State University
Dr. Fred Semazzi	North Carolina State University
Dr. Lian Xie	North Carolina State University
Mr. Larry Lee	National Weather Service, Greer, SC
Mr. Jonathan Blaes	National Weather Service, Raleigh, NC
Ms. Gail Hartfield	National Weather Service, Raleigh, NC

#### (ii.) Graduate and Postdoctoral Advisor:

Dr. Daniel Keyser	University at Albany, State University of New York (Ph.D.)
Dr. Lance Bosart	University at Albany, State University of New York (Ph.D.)
Dr. John Gyakum	McGill University (Postdoctoral advisor)

#### (iii.) Thesis Advisor:

Mr. Chris Bailey, M.S. (NWS, HPC), Dr. Michael Brennan, M.S. and Ph.D. (NWS TPC), Mr. Jason Cerjak, M.S. (U.S. Air Force), Ms. Wendy Sellers (NWS, Charleston), Ms. Heather Reeves (NSSL), Ms. Kelly Mahoney (NCSU, Ph.D. candidate), Mr. Jason Caldwell (NWS Lower Mississippi RFC), Dr. Neil Jacobs (co-advised with S. Raman; AirDat), Mr. Blair Holloway (NWS, Greer, SC), Mr. Kevin Hill (NCSU, Ph.D. candidate), Ms. Nicole Haglund (Ok. Climate Survey), Ms. Morgan Silverman (NASA).

Currently advising 2 M.S. students and 4 Ph.D. students

Totals: 12 M.S., 2 Ph.D., 0 Postdoc