ACKNOWLEDGEMENTS

First and foremost, I would like to thank my family and my girlfriend Jessica for their love and support throughout my graduate school career. They were always able to put things in perspective and provide inspiration when the rigors of research and thesis writing seemed too much to handle.

I would also like to thank my academic advisors, Drs. Lance Bosart and Dan Keyser. Under their guidance, I have improved immeasurably as a scientist and as a communicator, and the opportunity to work with them over the last two years was an honor. Thanks also go out to my fellow graduate students (especially Chris Castellano, Matt Potter, Jaymes Kenyon, Matt Janiga, Alan Srock, Jay Cordeira, Nick Metz, Brian Crandall, Kyle Griffin, and Kyle MacRitchie, and Alan Brammer), not only for their technical assistance and scientific ideas, but also for being instrumental in maintaining a relaxed, collegial atmosphere around the department. Special thanks also go out to fellow Wisconsin and UAlbany alums Jonas Asuma and Ben Moore, who provided invaluable advice and assistance throughout my graduate school career. I would like to thank all the UAlbany Department of Atmospheric and Environmental Sciences faculty and staff, especially Kevin Tyle and Dave Knight for their technical support; Barbara Zampella, Patti Seguin, and Maria Moon for their administrative support; and Ross Lazear for technical assistance and for always providing good conversation.

Thanks go out to Stuart Hinson at the National Climatic Data Center for providing access to the *Storm Data* database, and to Rich Thompson at the Storm Prediction Center for providing access to the radiosonde archive. Last but not least, I sincerely thank my