

CURRICULUM VITA

Deanna Hence

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Educational and Career Objectives

To obtain a doctoral degree in Atmospheric Science. I am interested in mesoscale meteorology and mesoscale/synoptic-scale weather interactions, particularly tropical and mid-latitude phenomena. My eventual goal is to combine my science background with education, outreach and/or policy.

Education

in progress:

PhD Candidate--University of Washington Department of Atmospheric Sciences

received:

2007 Master of Science in Atmospheric Science--University of Washington

2004 Bachelor of Science in Atmospheric, Oceanic, and Space Science with a
Meteorology concentration--University of Michigan

Academic Honors and Awards

2006-Present NASA Earth System Science Fellowship recipient

2004-2005 Graduate Opportunity Program Research Assistantship recipient
Graduate School Top Scholar Award recipient
Graduate Diversity Fellow

2004 Rising Student Achievement Award, Scholar Power Student Honoree

2003 Dean's List

2002 Dean's List

2002 University Honors

Research Experience

Present Graduate Student, University of Washington Department of Atmospheric Sciences

Advisor: Robert Houze, Jr.

Topic: The study of the precipitation and kinematic structure of hurricane rainbands using airborne and space-borne radar systems.

- 2004 Student Researcher, Atmospheric Technology Division (ATD), NCAR
Continuing my work from SOARS 2003, I investigated a case study from VORTEX '95 to resolve a hailstorm's wind structure and evaluate its effect upon hail formation.
Mentors: Wen-Chau Lee, Jay Miller, Michael Bell, Sreela Nandi
- 2003 Student Researcher, Atmospheric Technology Division (ATD), NCAR
Using Electra Doppler Radar (ELDORA) data, I investigated a storm from VORTEX '95 to resolve a hailstorm's wind structure and compare similarities with conceptual models of storm structure and hail formation.
Mentors: Wen-Chau Lee, Michael Bell, Sreela Nandi
- 2002 Student Researcher, University of Michigan Undergraduate Research Experience for Undergraduates
I assisted with the development of an educational game that uses tornado chasing as a tool for teaching students about meteorology and science.
Mentor: Perry Samson, University of Michigan AOSS
- 1999 Student Researcher, University of Michigan Undergraduate Research Opportunity Program
I assisted Dr. Colling in evaluating her tool for determining the severity of the effects of Alzheimer's disease.
Mentor: Kathleen Colling, University of Michigan School of Nursing

Field Experience

- 2005 Rainband and Intensity Change Experiment (RAINEX)
In flight I maintained communication with the operations center for the flight coordination of the Navy Research Laboratory's P-3 aircraft, as well as assisted the in-flight analysis of ELDORA and other in-situ data. In the operations center I performed dual-Doppler analysis of ELDORA and NOAA P-3 radar data as well as assisted with coordination of and communications with the aircraft as well as other scientists.
- 2003 Bow Echo and MCV Experiment (BAMEX)
During this experiment I learned dual-Doppler

Teaching Experience

- 2005 Teaching Assistant, Atmospheric Sciences 101
Professor: Robert Houze, Jr.

Community Service

- 2007-Present Continued outreach efforts on an individual level
- 2005-2007 UW Department of Atmospheric Sciences Graduate Student Outreach Coordinator

2005-2007 Volunteer at the Seattle National Weather Service office

Publications

Refereed:

Hence, D. A., and R. A. Houze, Jr., 2008: Kinematic structure of convective-scale elements in the rainbands of Hurricanes Katrina and Rita (2005). *J. Geophys. Res.*, revised.

Non-Refereed:

Hence, D., 2004: Wind structure and its impact on hail production: A VORTEX '95 case study using airborne Doppler radar. *Earth, Wind, Sea, and Sky: Protégé Abstracts Significant Opportunities in Atmospheric Research and Science*, University Corporation for Atmospheric Research, Boulder, CO.

Hence, D., 2004: Wind structure and its impact on hail production: A VORTEX '95 case study using airborne Doppler radar. *SOARS® Protégé Research Papers Summer 2004*, University Corporation for Atmospheric Research, Boulder, CO.

Hence, D., 2003: Investigation of conceptual hail-formation models using airborne Doppler radar. *Earth, Wind, Sea, and Sky: Protégé Abstracts Significant Opportunities in Atmospheric Research and Science*, University Corporation for Atmospheric Research, Boulder, CO.

Hence, D., 2003: Investigation of conceptual hail-formation models using airborne Doppler radar. *SOARS® Protégé Research Papers Summer 2003*, University Corporation for Atmospheric Research, Boulder, CO.

Scholarly Presentation

Oral:

Hence, D., 2007: The structure of rainbands in hurricanes Katrina and Rita. *Clouds and Precipitation Seminar*, Department of Atmospheric Sciences, University of Washington, Seattle, WA.

Hence, D. and R. Houze, 2006: Rainband structures observed in RAINEX. American Meteorological Society, 27th Conference on Hurricanes and Tropical Meteorology, Monterey, CA.

Hence, D., 2005: Hurricane eyewalls and rainbands: observations from TRMM PR and RAINEX. *Clouds and Precipitation Seminar*, Department of Atmospheric Sciences, University of Washington, Seattle, WA.

Hence, D., 2004: Wind structure and its impact on hail production: A VORTEX '95 case study using airborne Doppler radar. *SOARS® Protégé Colloquium*, University Corporation for Atmospheric Research, Boulder, CO.

Hence, D., 2003: Investigation of conceptual hail-formation models using airborne Doppler radar. *SOARS® Protégé Colloquium*, University Corporation for Atmospheric Research, Boulder, CO.

Posters:

Deanna Hence, Robert Houze, Jr. and Stacy Brodzik, “Vertical structure of TCSP and RAINEX hurricanes as seen by the TRMM PR.” NASA Precipitation Measurement Mission Science Team Meeting, 2007 Annual Meeting, Atlanta, GA, May 2007.

Deanna Hence and Wen-Chau Lee, “Investigation of conceptual hail-formation models using airborne Doppler radar.” American Meteorological Society, 84th Annual Meeting, Third Annual Student Conference, Seattle, WA, Jan. 2004.

Deanna Hence and Wen-Chau Lee, “Investigation of conceptual hail-formation models using airborne Doppler radar.” Society for Advancement of Chicanos and Native Americans in Science, 2003 Annual Conference, Albuquerque, NM, Oct. 2003.

Membership in Professional Organizations

2007-Present Student member of the American Geophysical Union

2003-Present Student member of American Meteorological Society

2003 Student member of Society for Advancement of Chicanos and Native Americans in Science (SACNAS)

References available upon request