



Cooperative Institute for Precipitation Systems

This Period in CIPS: January – March 2006

Upcoming Conferences and Presentations

Abstracts and Presentations are currently being generated for the Missouri Academy of Science meeting in Kirksville, MO on 22 April 2006.

The GFS Model in a Busted Snow Event: 15-16 January 2003: Chad M. Gravelle, Fred H. Glass, James T. Moore, and Charles E. Graves

An Application of Corfidi Vectors to a Spectrum of Mesoscale Convective System Types: Kelly Kubinski, James T. Moore, and Charles E. Graves

Characteristics of Mesoscale Snowbands and the Environment in Which They Formed: Emily B. Eisenacher, James T. Moore, and Charles E. Graves

A Diagnostic Analysis of the 1-2 October 2005 Flash Flood Event: Erin E. Snively, Adam N. Pasch, Charles E. Graves, and James T. Moore

Submitted Articles

Using work performed under a COMET Partners grant, the following article is being revised for publication in the National Weather Digest:

Graves, C. E., R. A. Wolf, J. T. Moore, J. A. Zogg, and B. L. Mickelson, 2007: Analysis of the 3-4 June 2002 extreme rainfall event over Iowa and Illinois. *Natl. Wea. Dig.*, **31**, 83-102.

CIPS Team Notes

The Department of Earth and Atmospheric Sciences is glad to see Dr. Moore recovering from his unexpected illness at home rather than in the hospital. There is no holding Dr. Moore back as he wanted to teach a graduate level course this spring semester with meetings held at the Moore residence originally then gradually switched to the SLU campus as he felt better. The puns are never ending, which shows he is feeling much better. Welcome back Doc.

The Department of Earth and Atmospheric Sciences is moving out of Macelwane Hall and in to O'Neil Hall. O'Neil Hall is located at 3642 Lindell Blvd. The move should be complete by the beginning of the fall semester in August. The Department will occupy all of O'Neil Hall. The move also allows the Biology Department to expand, essentially using all of Macelwane Hall. So, this summer the Department will be busy packing and moving.

CIPS is in the initial stages of purchasing more memory for the Weather Event Simulation system. This will allow for numerous cases to be added since as our system is currently running at full capacity.

A new course is tentatively scheduled for the spring 2007 semester. The new course is a graduate level Weather Event Simulator Case Study course. Graduate students will examine numerous weather events and predict outcomes based on the situations presented. This gives graduate students the hands-on experience of the AWIPS environment and products frequently used by the NWS.

The CIPS team is also in the initial stages of developing guided case studies for the WES system to be used by forecasters and students, some of which will be used in the new course offered in the spring 2007 semester.

The department is currently hiring for two positions: Department Chair and Assistant Professor of Meteorology. Both positions will likely be filled before summer.

CIPS team members are continuing to collaborate with Wes Junker, an HPC contractor, and Matt Kelsch of UCAR/COMET with the investigation of the Kansas turnpike flash flood case of August 30-31 2004. CIPS Research Assistant Jeff Vitale is still assisting with this project until his graduation in May.

Adam Pasch and Mike Paddock are teaming up to publish an article. The topic is related to their Master's research, meso-beta scale snow bands. A diagnostic analysis and model simulation will be presented on one case study.

Don't forget that the Presentations and Recent Events pages are updated frequently. Check back from time to time and see what the CIPS members are up to.

CIPS Team News

Marty Baxter is busy teaching introductory courses and synoptic meteorology as a full-time instructor in the meteorology department. He also continues work on his Ph.D. Marty's work involves the role of convection in winter storms and the predictability of such systems.

Jaime Poole continues to work toward the completion of her Ph.D. Currently she is using the Weather Research and Forecasting (WRF) model to run simulations of elevated thunderstorm events. The focus of her research is to investigate numerous cases, each representing a different distance between the area of elevated convection and the

associated surface boundary, in order to identify possible initiation and propagation characteristics of elevated storm systems.

Mike Paddock continues to work with Ron Przybylinski (SOO, St. Louis NWS) and Gary Schmocker (Forecaster, St. Louis NWS) on cases involving very narrow snow bands. He is also beginning his Ph.D. studies with emphasis on heavy rainfall proximity soundings with preliminary results, utilizing twelve test cases, expected in the summer. Mike is writing his prospectus and anticipates its completion in May.

Adam Pasch is beginning his Ph.D. studies with emphasis on precipitation verification. Adam is in contact with Beth Ebert (Bureau of Met. Research Centre, Melbourne Australia), Barbara Brown (NCAR), Steve Weiss (SPC/NSSL), and Mike Baldwin (NSSL) to obtain various data sets and code for his precipitation verification studies. He is also writing his prospectus with completion slated for May.

Jeff Vitale continues work on the August 30-31, 2004 Kansas turnpike flash flood case. He is also investigating other low-echo centroid storms to better understand their mesoscale environment, one of which is a WES case. Jeff is currently busy writing his thesis and is anticipating graduating in May.

Chad Gravelle is investigating snow null events and is going to present one case at the Missouri Academy of Science. He is working closely with Fred Glass (Lead Forecaster, St. Louis NWS) on one of these null events. Chad is helping Ron Przybylinski (SOO, St. Louis NWS) with the Greater St. Louis AMS meetings. He is also busy preparing for his Master's qualifying exam in April. Good Luck Chad!

Emily Eisenacher continues investigating radar characteristics and the environment in which snow bands grow and propagate. She is exploring one snow band case using the WES system. The results of this work will be presented at the Missouri Academy of Science meeting. Emily has begun writing her thesis and anticipates graduating in May. She has decided to stay at SLU and work on her Ph.D. after graduation. Glad to keep you with us!

Kelly Kubinski continues to investigate applications of Corfidi vectors under a spectrum of Mesoscale Convective System types. She is investigating nine cases and will present the results of this work at the Missouri Academy of Science. She is also in the process of writing her thesis and anticipates graduating in May.

Doug Tilly is now the newest member of the NWS in St. Louis. He was hired on at the intern level. Congratulations Doug. He continues using the MM5 to determine how convection in the warm sector disrupts or enhances precipitation downstream.