



Monthly Newsletter of the Central North Carolina Chapter of the American Meteorological Society

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February 2011

Upcoming Events:

Next Meeting: Thursday, February 17,
7:15 PM.

SPEAKER: Matthew D. Brown
Parker, Associate Professor, Department
of Marine, Earth & Atmospheric
Sciences, North Carolina State
University

LOCATION: Room 1132, Jordan Hall
NC State University

TOPIC: The Verification of the
Origins of Rotation in Tornadoes
Experiment 2 (VORTEX2)

ABSTRACT/BIO:

Matt Parker received his Ph.D. in 2002 from Colorado State University. His first faculty position was at the University of Nebraska from 2002-2005. Since then, he has been on the faculty at North Carolina State University in Raleigh, where he is now an Associate Professor. His ongoing work emphasizes the dynamics governing severe convective storms. His latest exploit was to serve as the mobile soundings coordinator for the second Verification of Rotation in Tornadoes

Experiment (VORTEX2) during 2009 and 2010.

In May and June of 2009 and 2010, the largest coordinated tornado project in history (VORTEX2, or the Verification of the Origins or Rotation in Tornadoes Experiment 2) took place in the Great Plains. Matt Parker led a combination of 14 North Carolina State University undergraduate, graduate, and postdoctoral scholars, who operated four truck-borne sounding systems during VORTEX2. In the presentation, he will review our current understanding of tornadogenesis, describe the tools and techniques used for data collection in the field, and narrate a slide show of images from the 2009 and 2010 field campaigns.

As a friendly reminder, dues are \$10 (\$5 for student members) for the year, with half the dues going towards the Academic Achievement Fund. Dues can be paid at the monthly meeting or sent to:

Marilyn Schiermeier
303 Glasgow Road
Cary, NC 27511

Please make checks payable to "CNCC-AMS". Donations to the Academic Achievement Fund are also welcome, and are tax deductible.

NEWS

Chapter Member Frankie Vann Acknowledged for Judging at Science Fairs

Frankie Vann's participation as a judge for the Southeastern North Carolina and North Carolina State science fairs was mentioned in the December 2010 edition of the American Meteorological Society's BAMS publication.

Overview of the National Weather Service's Use of the Student Career Experience Program

The December 2010 edition of BAMS features an article describing how the National Weather Service utilizes the federal Student Career Experience Program (SCEP) to identify promising students for employment opportunities.

The SCEP is mutually beneficial to the National Weather Service and to current students. The program helps employers identify top talent, while providing students with the opportunity to gain job experience and separate themselves from competitors. Information on the program is available at:

www.opm.gov/employ/students/intro.asp

Chapter Member Kara Smith Successfully Defends Thesis

Kara Smith defended her thesis, "The Role of the Dominant Modes of Climate Variability over Eastern Africa in Modulating the Hydrology of Lake Victoria", on January 13.

She used a water balance model to investigate the role of dominant modes of precipitation over Eastern Africa, including El Nino

Southern Oscillation (ENSO) and the dipole mode over East Africa, on Lake Victoria levels.

The sudden significant increase in lake levels from 1961-1964 was mainly caused by consistent above average precipitation during those years, while the decline from 1965-2005 was due to the lake reaching a new equilibrium level. The first Empirical Orthogonal Function (EOF) mode of annual precipitation variability (ENSO) accounts for the highest impact on the annual variability of Lake Victoria levels.

While the second annual EOF mode accounts for approximately 10 percent of the variability, its affect on the variability of lake levels is nearly negligible because the loadings are very small over the lake.

Lake Victoria levels could reach 14 meters under IPCC AR4 A2 scenario projections. Potential flooding from these increased levels was mapped using GIS. This information is potentially highly valuable in assessing future use of hydroelectric dams and other applications such as land use and infrastructure planning over the Lake Victoria basin.

There is a definite need for sustained and improved monitoring of the lake and its basin, and to compile high quality monthly observations for all the factors in the water balance model including information on water taken from the lake and its tributaries for human use.

With the successful defense of her thesis, Kara will earn her M.S. in Marine, Earth and Atmospheric Science from North Carolina State University in May. Congratulations, Kara!

Reminder: 2011 StormFest Invitation

StormFest is scheduled to return to the North Carolina Museum of Natural Sciences on June

18, 2011 from 9 a.m. to 5 pm. The highly successful event, which attracted around 7,500 people in 2010, plans to expand in 2011, with more agencies and companies invited to participate.

Participating agencies and companies will be allowed to set up information booths inside the museum, showcasing their roles and their services during disasters, primarily hurricanes and flooding. Educational sessions and presentations will run throughout the day. Additionally, large, outdoor displays, including rescue vehicles and communication equipment, will be displayed in front of the museum on Jones Street. The 2011 StormFest Facebook page is:

<http://www.facebook.com/home.php?#!/event.php?eid=118605968168801>

Reminder: Marbles Kids Museum to Present “Science Solvers” Series

The Marbles Kids Museum in downtown Raleigh is putting together a series called “Science Solvers” that will feature a variety of different careers in the sciences and include activities for kids between the ages of three and eight years.

The planners would like to include meteorology in this series and are seeking anyone in the Chapter that enjoys working with young children and would be interested in hosting a two hour activity station on one Sunday afternoon in the spring.

If anyone is interested, please contact Sarah Wolfe, Program Events Manager, either by telephone at (919) 857-1008, or by the email address below.

swolfe@marbleskidsmuseum.org

Announcements from the Student Chapter

On Monday, February 21, the Student Chapter will tour the WRAL studios. Led by Nate Johnson, the tour will begin around 7:00 pm.

Additionally, the Student Chapter plans to host an Advanced Skywarn Meeting either on Wednesday, March 30 or Thursday, March 31.

The Student Chapter t-shirt fundraiser will be returning this year. It is anticipated that orders for the shirts will start by the first week of March.

January Meeting Minutes

Business Meeting Notes:

- 25 people were in attendance.
- Treasurer Marilyn Schiermeier noted that total Chapter assets are \$10,684.49, including \$215.00 in the Academic Achievement Fund. Paid Chapter membership stands at 46 individuals.
- Education Chair, Marvin Maddox, is seeking anyone interested in serving as a judge for an upcoming science fair. If interested, please contact Marvin.
- The Chapter was pleased to welcome guest Kyle Noel. Kyle is a high school student from Clayton interested in a meteorology career.
- President Frank Schiermeier announced that the Chapter CD is close to maturity and will be renewed for another 12-month term.
- Nominations for 2011-2012 Chapter officers are now being accepted. Nominations can be submitted to a chapter officer or suggested at an upcoming meeting.
- A reservation has been placed at the Bavarian Brathaus in Cary for the Annual Chapter Banquet scheduled for Friday, May 6.

Speaker Notes:

- Tom Paylor, Trader, RenaissanceRe, presented, "Using Weather as a Tool in the Financial Markets--Both as Hedger and Speculator".
- Traded markets include weather derivatives and commodities. Indices for weather derivatives include temperature, precipitation, streamflow, and wind speed, as measured at objective, third-party stations.
- Market utilizes "call" and "put" options.
- Speculation opportunities exist in weather derivatives, energy commodities (power, oil, natural gas), and agricultural commodities (cocoa, sugar, orange juice).
- Successful involvement in speculation demands knowledge of station biases, forecasts, and illiquid markets.

Mark those Calendars!

Here are the tentative dates for meetings during the 2010-2011 chapter year. We look forward to seeing you.

February 17th
March 17th
April 21st

Please be aware that dates are subject to change.

Officer 411

Let us know what you think. Have suggestions for speakers? Topics? Interesting weather websites? Please feel free to email any of the officers.

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