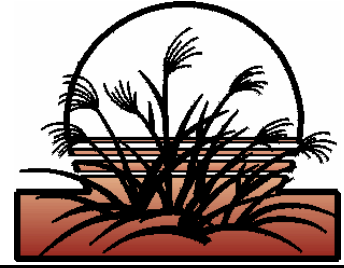




**NEWSLETTER  
TWIN CITIES CHAPTER  
AMERICAN METEOROLOGICAL  
SOCIETY  
April, 2008 Vol. 29 No. 8**



**The meeting of the Twin Cities Chapter of the AMS will be at 7 PM Thursday April 17th, 2008, Wick Science Building room 21 (aka, WSB-21), St. Cloud State University, St Cloud, MN. Specific directions to the meeting can be found on page 6. AMS chapter members, interested acquaintances and potential members are invited to attend.**



**ST. CLOUD STATE  
UNIVERSITY**

*Tour of the Meteorology Department of St. Cloud State University and Student Research Presentations.*

*Host: Tony Hansen*

St. Cloud State University, home to the only 4-year meteorology degree program in Minnesota, has been in existence for 20 years. The department houses a computer weather laboratory used for weather forecasting, a meteorological instrumentation laboratory, a WSR-74C 5-cm radar, a recently instrumented 160 m radio tower, and also uses traditional as well as "smart" classrooms for teaching. Meteorology is part of the Earth and Atmospheric Sciences department, which has 8 full time faculty members. Of these, 4 teach meteorology, 2 teach hydrology, and 2 teach geology. There are about 14 graduating senior meteorology majors each year and roughly 120 declared or intended meteorology majors, with hundreds of non-majors taking meteorology, hydrology, and geology courses each semester.

There will be three 20-minute student presentations covering their senior thesis research:

**Kirstin Gleicher:** "Saharan air layer vertical profiles as observed during NAMMA"

**Diana Jesberg:** "The dynamic structure of Hurricane Rita and how it compares to tropical cyclone theory"

**Beau Gjerdingen:** "Mesoscale modeling of convective environments in Minnesota using the WRF-ARW"



***President's Corner: Chris Bovitz***

Whoever's job it is to turn the giant switch from "winter" to "spring": you're fired!!!

If you missed our last meeting, you missed a great discussion with the members of the Minnehaha Creek Watershed District offices. Ms. Westerlund had a great presentation, a great delivery, and kept everyone engaged about an important topic, in my opinion.

We're nearing the end of the chapter year, and with May comes the annual officer elections. More information can be found elsewhere in this newsletter. If you've been active in the chapter and would like to take that next big step, this is your chance. If you haven't been active and would like to be, this is your chance, too. And if you don't want to take that big of a step, there are committees and activities which we

need chairpeople and coordinators. If you want to be involved but don't desire to be an officer, we can find a place for you.

Big thanks to everyone who has been a volunteer judge at the local science fairs. This is where it starts, folks. Get 'em while they're young.

In the last month, I have been happy to get two good ideas for meetings from our membership. I don't know everything going on in the weather world, and I can't be everywhere. If you hear of a great place to visit or know of a good speaker coming to town, let me know, and we'll see if we can work it in.

And, in general, if you have any ideas on something you'd like this chapter to do, or a way to do something better, please let me know.

## **Annual Officer Elections**

We won't have an official meeting in April, so I will toss this out now: If you would like to be an officer of the chapter for next year, now is your chance. Elections will be held at the May meeting. If you are interested, before that May meeting, send to the current officers ([officers@twincitiesams.org](mailto:officers@twincitiesams.org)) your intention to run for an office, and, of course, the name of the office. The positions are president, vice president, secretary-treasurer, and newsletter editor. Some interest has already been shown for these positions. Specifically, our long-time newsletter editor, Kurt Scholz, will be stepping down, so that position will definitely be open. If you want more information about what one would do as a particular officer, you can e-mail that person directly via the links on our web site.



## **Carpooling to the April Meeting**

Our April meeting will again be a trip up to St. Cloud to visit the Department of Earth and Atmospheric Sciences. We again will be carpooling up there for those who don't care to drive alone. We will meet at the Cub Foods at 8150 Wedgewood Lane North in Maple Grove, and our caravan will depart at 6 p.m. (Use Google Maps for a map. It might say it's in Osseo, but there is only one Cub Foods at the address above.) If you would like to participate in the carpool, send your name, if you will be driving, and if so, how many people you can take

(including you) to me at [president@twincitiesams.org](mailto:president@twincitiesams.org). Please arrive by 5:45 p.m. so we can get everyone situated, split into vehicles, and sent on their way to get to the university on time.

## **Summer Weather Contest**

We are starting a new summer weather contest that will be similar to our winter weather contest. Interested contestants will have to predict, between (and including) June 20 and September 22:

1. Maximum summer temperature (°F)
2. Number of thunderstorm days (days)
3. Tiebreaker – Maximum dewpoint temperature (°F)

Data will be collected from the observations at KMSP.

Remember that if two thunderstorms are observed in a calendar day, it still is only on thunderstorm day.

Get your guesses to the secretary-treasurer

([sectreas@twincitiesams.org](mailto:sectreas@twincitiesams.org)) by June 1. The prizes, awarded at the September meeting in the fall, will be \$20 gift cards from a store of my choosing, but it'll be a place you'll likely visit. We'll keep track on the web site as we have been for the winter weather contest.





## *Movin' On, Movin' Up, Movin' Out*

If you have big changes in your personal or professional life or another member you would like to announce to the chapter, please send a summary to [newsletter@twincitiesams.org](mailto:newsletter@twincitiesams.org).

### **Member Sign-up and the Member Page**

This year, we have a new and improved [member application page](#) to support our above mentioned new [member page](#). You can fill out the page on-line and send the information to the secretary/treasurer, or you can print it out and send it in, too. Either way, we need your dues, dependent on how you want your newsletter delivered.

As previously mentioned in the Corner, we are going to have a list on the web of our members. You can see it at <http://twincitiesams.org/members.html>. This will be a list that the public will see, so if there is something you do not want to be seen, denote that when you fill out the membership form. I know that web spiders are out there and can pull e-mail addresses out of web pages. To fix that, I will make e-mail addresses images, making them harder to see by these web-page-searching programs. And if you don't want any information of yours listed, let us know.



### *Minutes of the March, 2008 Meeting*

The March 2008 meeting of the Twin Cities chapter of the American Meteorological Society was called to order at 7:05 pm on March 18, 2008, by President Chris Bovitz. Secretary/Treasurer Lori Bovitz was also in attendance along with nearly 20 members and guests. The meeting was held at Minnehaha Creek Watershed District Office in Deephaven, MN.

Introductions were made and the secretary and treasurer reports were read and approved.

Lori Bovitz reported on the DataStreme activities. The semester is going well with about five students participating. Both Lisa Schmit and Lori Bovitz are mentors this semester. A description of the program was also presented for those not familiar with DataStreme.

There are still upcoming science fairs. The next one is the Minnesota Academy of Science State Fair on March 31 in St. Paul. The South Center/Southwest Minnesota Regional Science and Engineering Fair is May 3 at Minnesota State University in Mankato. The chapter will provide weather radios for the best meteorology-related projects. If you are interested in judging one of these fairs, contact Karen Trammell.

The Minnesota Skywarn Workshop is on April 5. The chapter is a sponsor of the workshop, and we will staff a booth there. Chris Bovitz will staff the booth during the workshop, and Doug Dokken volunteered to set up his WATADS display. In addition, Bovitz put together a "Weather Bingo" game and will run the game during talks by Karen Trammell and Matt Friedlein.

As always, spread the word about the chapter. When discussing the weather with coworkers, neighbors, or friends, tell them about our group. They may be interested in hanging out with other weather enthusiasts.

Member Craig Edwards reminded the chapter about the JetStream podcasts available through Minnesota Public Radio. They have been doing these podcasts for about a year and are seeing a significant increase in listenership. The podcasts are about 20 minutes long and usually have topical weather discussions with one or two guests.

Theresa Benkowski provided a possible future meeting topic. She suggested we could tour at the Great River Energy Plant in Maple Grove. The headquarters building is one of the first LEED certified buildings. Heating is from geothermal sources; the electricity is provided by a wind turbine; and the building has a green roof.

The next meeting in April, will be presentations by seniors at the meteorology department at St. Cloud State University. They will present the results of their senior research projects. The May meeting will be Tuesday, May 20, at the WFO in Chanhassen. The meeting will be a picnic, recap of the year, and officer elections.

The business portion of the meeting was adjourned at 7:30 p.m.

After the meeting and dinner, Julie Westerlund of the Minnehaha Creek Watershed District (MCWD) spoke about climate change and stormwater management.

The MCWD is a local government unit that monitors the drainage of Lake Minnetonka, Minnehaha Creek, and the Chain of Lakes. They work with over 30 municipalities to discuss a variety of watershed issues and how the plans of the municipalities affect the watershed district. Ms. Westerlund then discussed the possible effects of climate change, some of which include more extreme events between long dry periods (warmer and more rapid runoff into streams), more freezing rain events in the winter (necessitating the use of more chemicals on the roads), lake turnover would occur earlier in the spring and later fall (causing early-season algal blooms), warmer temperatures in the summer (increasing lake evaporation).

Ms. Westerlund also talked about some the mitigation strategies and projects they have done. This includes rain gardens, pervious pavement for driveways and patios, and an example of a parking lot that has swales and vegetation among the parking spots.

After the presentation, Ms. Westerlund took questions.

### *Upcoming AMS Chapter Meetings and Other Events*

<b>Date &amp; Time</b>	<b>Event</b>	<b>Location</b>
<b>2007-2008 Chapter Year</b>		
Saturday, April 5	Twin Cities Skywarn workshop	<a href="#">St. Thomas University</a> St. Paul, MN
Thursday, April 17 7:00 pm	April meeting Speakers: Seniors at St. Cloud State University Topics: Their senior theses	<a href="#">St. Cloud State University</a> St. Cloud, MN
Saturday, May 3	South Central/Southwest Minnesota Regional Science and Engineering Fair Elementary level	Minnesota State University, Mankato <a href="#">info</a>
Tuesday, May 20 6:00pm	May meeting Picnic, recap of the year, elections, and planning for next year	<a href="#">Twin Cities WFO</a> Chanhassen, MN <a href="#">(map)</a>



### *A Look at Weather History: March - April 1965*

Anthony Stender

The causes and effects of the Mississippi River flood in 1965 have been well documented. The 1965 flood broke previous river crest records along most of the northern half of the river. Damages from the flood were estimated to stand at \$225 million. At least 19 people died during the flood, and 40,000 others had to flee their homes during the event.

The major flood was a result of an early and deep frost in the fall of 1964, followed by a cold and wet spring. For most of the winter of 1964-65, the Twin Cities area had little to no snow cover. Local temperatures fell below zero on 45 days that winter (the low temperature fell between zero and two degrees another 11 times). The last major cold snap with sub-zero weather occurred between March 19<sup>th</sup> and 26<sup>th</sup>. March temperatures were actually below normal for most of the U.S., and it was ranked as the coldest March in 70 years for the upper plains. The weather was a result of a blocking ridge that moved westward across the U.S. to the Gulf of Alaska in early March. At the end of the month, a series of storms

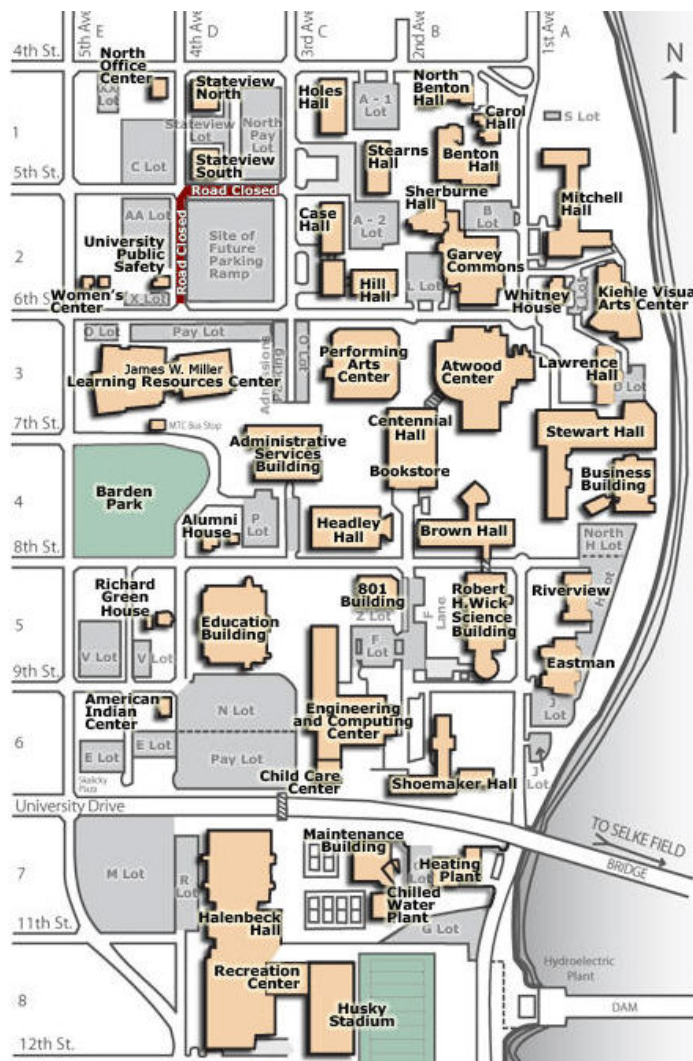
dumped snow on the upper Midwest, and the Twin Cities went from a two-inch snow cover on March 1<sup>st</sup> to a 27-inch snow cover on the 29<sup>th</sup>. The high probability for major flooding became very apparent at this point.

Temperatures jumped into the upper 30s and 40s during the first half of April. Precipitation, primarily rain, continued to fall. As a result, the deep frost finally came out of the ground, and the Twin Cities' snow cover was gone by Palm Sunday, April 11<sup>th</sup>. By Palm Sunday, the Minnesota River had already crested at Mankato. It would be several more days before the Mississippi would crest in the Saint Paul. On that same Palm Sunday, however, the second worst tornado disaster to date struck portions of the upper Midwest, resulting in another 271 deaths.

Many locations along the upper Mississippi River witnessed flood crests that exceeded previous records by three to five feet. Major levee failures also occurred along the river in Iowa and Illinois when the river crested there late in April. The spring of 1965 was far from over.

#### References:

1. Drieslein, R., The Mississippi flood of 1965, Big River Magazine, April 1994.
2. O'Connor, J.F., The weather and circulation of April 1965. MWR (1965)93: 965-473.
3. Green, R. A., The weather and circulation of March 1965, MWR (1965)93:392-398.
4. National Weather Service, The Mississippi River flood of 1965 ([http://www.crh.noaa.gov/arx/events/missflood\\_1965.php](http://www.crh.noaa.gov/arx/events/missflood_1965.php))



*The meeting of the Twin Cities Chapter of the AMS will be at 7 PM Thursday April 17th, 2008, Wick Science Building room 21 (aka, WSB-21), St. Cloud State University, St Cloud, MN.*

#### Directions:

Take Interstate Highway **94** northwest to the **St. Augusta** exit (#171). This is the first of three exits to St. Cloud, and has a sign indicating that it is the exit for St. Cloud State University. Turn right at the off ramp stop sign, and continue on past the first stoplight that you see (the McStop). A mile down the road (**County Road 75**, which is a double-lane divided highway) you will see your second stop light. Turn right at the stoplight onto **Clearwater Road**. Take Clearwater Road north about 2 miles to **10th Street**, and turn right. There will be a Conoco station at that intersection. Then, take a left at the first stoplight onto **5th Avenue**. Go two blocks to **8th Street**, and take a right at the 4-way stop sign. You will see the **Wick Science Building** (formerly Math and Science Building), with a radar on top of it, a couple of blocks ahead on the right. **F-lot**, where you may be able to park in the evening. If it is full, you may have to park in the N-lot (see campus map). The Earth Science Department is located in the basement of the Wick Science Building. Enter through the southwest door and proceed downstairs. The meeting will be in Room 21.

There is construction of an addition to our building going on right now that will complicate the parking and building entrance slightly. One of the entrances is closed because of the construction, but otherwise our area is not really affected. There are parking lots just across the street to the SE and across the street to the west.



### *AMS on the WWW*

Please check <http://www.twincitiesams.org> for lots of interesting information, changes and updates.

### *Editor's notes - Kurt Scholz*

If you have any information or ideas that you think will help us win an award, please email us: [officers@twincitiesams.org](mailto:officers@twincitiesams.org). Award applications and information may be found on the AMS Web site at <http://www.ametsoc.org/awards/index.html> .



*APRIL FOOLS* photo credits – 4-1-08 – Kurt Scholz backyard.

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