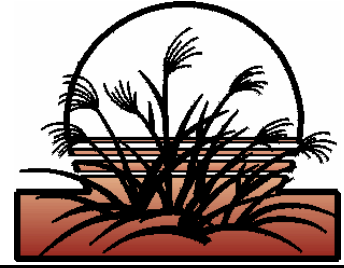




NEWSLETTER  
TWIN CITIES CHAPTER  
AMERICAN METEOROLOGICAL  
SOCIETY  
May, 2007 Vol. 28 No. 9



The meeting of the Twin Cities Chapter of the AMS will be at 7 PM May 15th, 2007 Twin Cities WFO, Chanhassen, MN Specific directions to the meeting can be found on page 5. AMS chapter members, interested acquaintances and potential members are invited to attend.



*Annual Picnic in the Backyard of the WFO in Chanhassen!! 7 p.m. Tuesday May 15<sup>th</sup>*

The May meeting will be at 7:00 p.m. on May 15 at the Twin Cities WFO, and it will not have a speaker except for me (Chris) directing the conversation. The topic: What we did last year, and where can we go next year. Please bring your ideas to the meeting. I am only one person, and what I think is best might not be the same what the rest of the members think. Also, bring your thoughts on what could be done better next year. We can't improve or move ahead if we don't know what we can improve upon or where to move ahead. We will also have officer elections. More on that elsewhere in the newsletter.

The meeting is currently set to take place at the picnic tables behind the Twin Cities WFO building in Chanhassen, where we will enjoy a couple of Subway party subs and some soft drinks while we discuss chapter business.

If you are going to attend, please e-mail me ([president@twincitiesams.org](mailto:president@twincitiesams.org)) with your intentions to come and any strong preferences for food **before 11:59 p.m. Friday, May 11**. The price will be \$5.00 each, both adult and child.

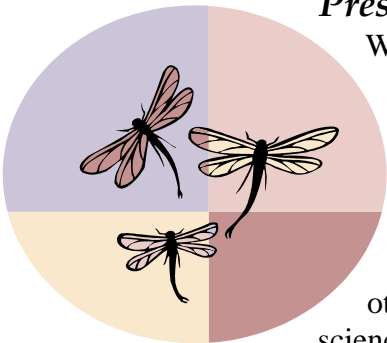
If you want a say in who is going to be leading this chapter or what we do in it, you need to come to this meeting. Otherwise, you really can't complain.

*President's Corner: Chris Bovitz*

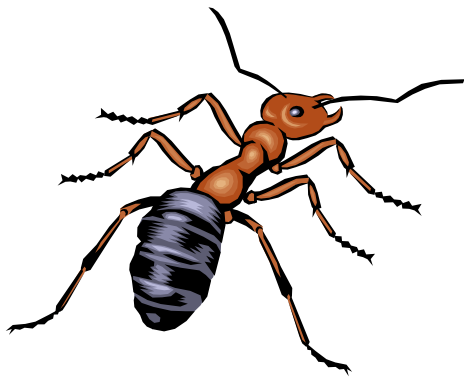
Well, we made it through another year, and I hope we're in better shape than when we started it. We've moved ahead on a lot of fronts, increasing our presence in the Twin Cities community, gaining new members, and trying to some good here. I hope this can continue this next year.

As president, I consider myself charged by the members with the upkeep and well-being of this chapter, and since I can't do it alone, the success has to go to the other people involved, from the other officers to the people on the committees to the science fair judges. A big thanks to all of you for doing what you did so well, and for

putting up with my direction.



But one person I'd like to single out for thanks is Rainie Scholz. I learned just a couple of months ago that although not a member, she has been involved with our newsletter since Kurt has been the editor, which as been at least as long as I have been an officer.



## *Elections*

May is when we elect our officers for the next year. To be an officer, you need to be a member of the chapter. If you'd like to run, bring your intention, desired office, and reason for wanting to become an officer to the May meeting. If you don't, you might just be elected anyway. Hey, how do you think **I** got here?

Here are some brief job descriptions:

**President:** The leader of the chapter and the one who sets the tone and direction for the chapter. Interact with the national chapter on matters of administrative importance and with other local chapters. Set up local chapter committees as needs arise. Must be a national member of the AMS.

**Vice President:** Back up to the president if he or she is not available for a function or duty. Oversee the committees, both standing and temporary.

**Secretary-Treasurer:** Administrative focal point for the chapter. Take meeting minutes and send them in a timely manner to AMS national headquarters. Handle all financial transactions of the chapter. Keep an updated member list and collect dues.

**Newsletter editor:** Collects items for the monthly newsletter and distribute it timely manner to not only members, but also others in the field such as the media or news organizations.

An important committee is the Speakers and Activities Committee. This group looks for speakers for the meetings, handles speaker requests from outside entities, and plans activities. There are currently two members, but more members mean more ideas. You don't need to be elected to be on this committee.

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



Along with Craig Edward's new gig as the morning meteorology expert on Minnesota Public Radio's "Morning Edition," he also participates in "Jet Streaming", MPR's weather podcast, hosted by Cathy Wurzer. Other frequent guests are state climatologist Mark Seeley and WCCO TV meteorologist Paul Huttner. A link to the podcast page can be found on our website on the Links page.

Rich Naistat will bring his decades-long career in the National Weather Service to a close on May 31. He has served in parts of five decades (which ones will be left as an exercise to the reader) at many forecast offices across the country, and I'm sure many NWS employees owe a great deal to his insight, knowledge, and guidance, gained from a unique (and usually correct) perspective of how the atmosphere works. If you would like to attend his open house on June 2, send him an e-mail at [rich.naistat@noaa.gov](mailto:rich.naistat@noaa.gov) before he retires. Rich also served as Twin Cities AMS president from 2004

to 2006.

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



### *Editor's notes – Kurt Scholz*

On Saturday April 21, Doug Dokken and I served as judges for the 20<sup>th</sup> Annual Winchell Student Symposium at Hamline University. This undergraduate student competition is held during the annual meeting of the Minnesota Academy of Sciences. The papers presented by students in the Earth Sciences were all excellent; it was extremely difficult to pick one winner. Four of the talks were on meteorology, given by students from St. Cloud State University. On behalf of the local AMS Chapter, we awarded a weather radio to Stephanie Anderson for her outstanding presentation.

#### ***Riming of Ice Crystals- Isaac Hankes, Rodney Kuhesh (Advisor)***

Riming can be described as the collection of supercooled water droplets onto the surface of an ice crystal as the crystal falls through the atmosphere on its journey from its creation in a cloud, down to the surface of the earth. The riming degree of ice crystals in a given snow event will have a correlation in some way to the atmospheric conditions, cloud physics, and thermodynamics at the time and location of the event.

#### ***Case Studies from Local Mesoscale Meteorological Data Network. Amanda Felber, Heather Lehmkuhl, Rodney Kuhesh (Advisor)***

Research was conducted to determine if a wintertime heat island existed over St. Cloud, Minnesota. Temperature, wind, and sky cover measurements were collected from four weather stations located at local schools along with the St. Cloud Airport Automated Surface Observing System (ASOS) from 1 December 2006 through 28 February 2007.

#### ***An Analysis of Tropical Cyclone Recurvature in the Gulf of Mexico. Donya Weibeler, Anthony Hansen (Advisor)***

An observational analysis of tropical cyclone recurvature in the North Pacific Ocean was conducted by Hodanish and Gray (1993). A similar approach is applied to tropical cyclones in the Gulf of Mexico. Hurricane data from 2000-2006 are used in a composite analysis of these Atlantic Basin hurricanes. The results will focus on how synoptic flow affects a tropical cyclone and the potential for a recurving trajectory.

#### ***The Branching Instability of Dendrites. Stephanie Anderson, Rodney Kuhesh (Advisor)***

Dendrites are complex structures created as ice crystals grow. Commonly grown around -15°C, these crystals are time-dependent interactions between atmospheric temperature, humidity, and pressure. During growth, all ice crystals' shapes are controlled by the rate of vapor diffusion. This diffusion-limited growth, a function of pressure, determines whether a crystal develops a "branched" (long, intricate arms) or "faceted" (platelike) appearance. While extremes exist, most dendrites are a delicate balance between faceting and branching.

.Our study aims at finding how diffusion-limited growth, at various pressures below standard sea level pressure, affects branching instability. Using a water bottle, hot water, dry ice, sponge, and thin fishing line; a supersaturated, subfreezing atmosphere was simulated for crystal growth. Temperature, supersaturation, and pressure were held constant. Crystals were first grown at standard atmospheric pressure. Through several experiments, a vacuum then decreased the chamber pressure each trial.



### *Minutes of the April 20, 2007, meeting Submitted by Kevin Huyck*

The April 2007 meeting of the Twin Cities chapter of the American Meteorological Society was held on April 20, 2007. The meeting was called to order at 7:00 p.m. by Kevin Huyck. About 12 members and potential members were also present.

No significant business was conducted at this meeting.

During the meeting, John Wettenkamp provided a presentation on the Sensitivity of Short Range Numerical Weather Prediction to Data Availability during the North American Monsoon Experiment (NAME). During this experiment, fine resolution numerical models were run using limited vertical layers and one sounding plus surface observations, no soundings and surface observations, and no observations. These results were compared with a control run that included numerous soundings and surface observations. The results indicated that with no observations being ingested into the model, a strict outer domain initialization, the output was not significantly different from the control run. In fact, since there was a smaller data set and reduced vertical resolution the model runs could be handled by a modern laptop in near real time. The implications of these findings for disaster mitigation and planning have potential. For example, a similar model could be used to forecast the movement of a chemical plume from an accidental release, a radiological hazard, etc.

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

<b>Date &amp; Time</b>	<b>Event</b>	<b>Location</b>
May 15, 2007 7:00pm	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>

### *The Snowfall contest through May 1, 2007*

The winner of the snowfall contest was Robert Gwilt with 48 inches. The total snowfall for the season was 48.2 inches.

The winner (announced last month) of the low temperature contest was Matthew Friedlein.

The winners will receive a Best Buy gift card.

Lori Bovitz  
Secretary/Treasurer  
Twin Cities AMS  
[sectreas@twincitiesams.org](mailto:sectreas@twincitiesams.org)

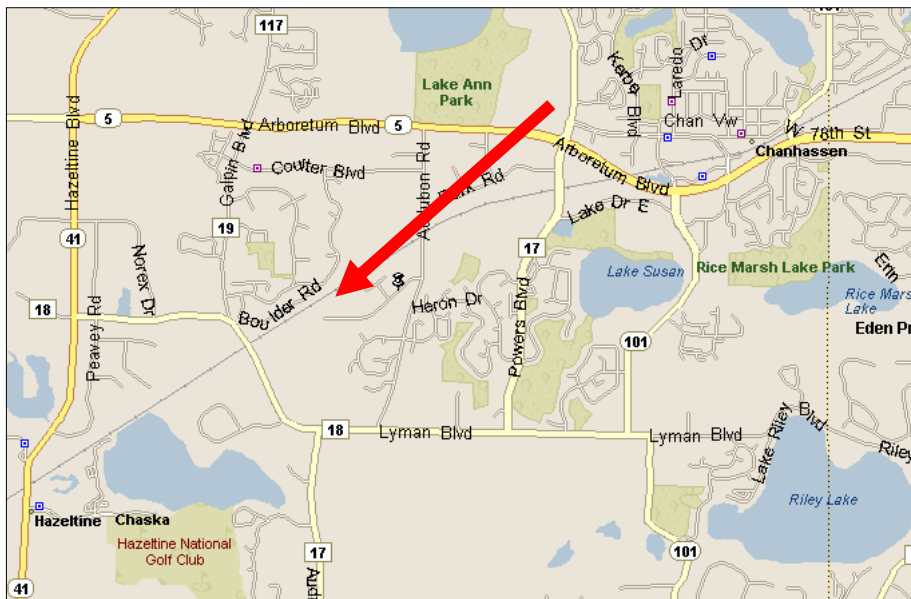


## AMS on the WWW

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

*The May meeting will be held at 7pm, on May 15th, 2007, NWS, 1735 Lake Drive West, Chanhassen, MN.*

### Directions



follow it to Audubon Road, then turn **left** and head south to Lake Drive.

Take Highway **494** to the exit for Minnesota **Highway 5** west in Eden Prairie. Travel west on highway 5 into Chanhassen. Turn **left** (south) at **Audubon Road**. Follow Audubon Road to **Lake Drive**, then turn **right** and follow Lake Drive to the NWS entrance, which will be on your left. The Nexrad radar tower will be visible as you approach the area. An alternative, if traffic is heavy and you want to avoid the Audubon turn off of highway 5, is to turn **left** at the light onto **Powers Boulevard**, and head south. You would then take the **first right** off of Powers Boulevard, onto **Park Road**, and

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