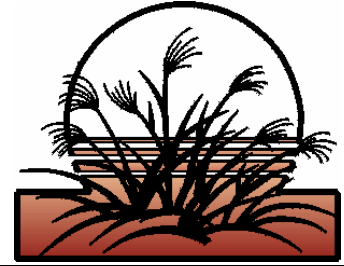




**NEWSLETTER
TWIN CITIES CHAPTER
AMERICAN METEOROLOGICAL
SOCIETY
March, 2007 Vol. 28 No. 7**



The March meeting of the Twin Cities Chapter of the AMS will be at 7 PM Tuesday, March 20, 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.



Speaker: Steve Buan

Topic: NWS Hydrologic Services: Anatomy of a Spring Flood and Where's my Water?



The National Weather Service Hydrologic Services Program covers the spectrum of drought to flood and everywhere in between. The spring floods in the Upper Midwest are historically the most severe flood of the year for most river towns. He will take a look at what conditions lead to spring flooding and how to interpret National Weather Service forecasts and outlooks. The flip-side of flooding is drought. Northeastern Minnesota is in the grips of a dry spell going back nearly 5 years. The St Louis river watershed contains many reservoirs managed for hydro power generation. The on-going drought has presented challenges to manage the water for various constituencies. He will examine how National Weather Service forecasts and outlooks are used in the water management decision process.

Mr. Steve Buan is the Hydrology and Climate Services Program Manager for the Twin Cities/Chanhassen National Weather Service (NWS) office. He received a Bachelor's Degree in Meteorology from the University of Wisconsin and a Master's degree in Forest Hydrology from the University of Minnesota. Steve began his career with the National Weather Service in Lake Charles, Louisiana. He subsequently transferred to the Twin Cities and has spent the last 17 years tracking floods and droughts across the Upper Midwest. He was a 1999 recipient of the Department of Commerce Bronze Medal for significant contributions to advanced river forecasting models. He has published several articles on advanced river modeling techniques and presented findings at many professional conferences. Steve recently co-authored a White Paper published in the Bulletin of the American Meteorological Society advocating colleges and universities to develop interdisciplinary curriculum involving meteorology and hydrology to fulfill emerging job skill needs in the public sector.



President's Corner: Chris Bovitz

Hey, it's spring, but you wouldn't really know it by looking outside. It seems like someone is trying to unload some extra winter on us.

And speaking of snow, someone finally shed some light on what NOHRSC does (and what "NOHRSC" stands for) at the February meeting.

I know it's still two months away, but start thinking about ideas for our May meeting, where we recap the previous year and plan for the next one. If you don't come, you can't give your opinion or idea, and you can't defend it. Also, don't forget to visit our speaker survey on our web site and give your opinions and ideas regarding speakers. Some of our better speakers have come from member recommendations (and have been members themselves!).

It looks like Karen's doing a great job as science fair coordinator. We are in the midst of the science fair season, and we could always use more volunteers. We decided to give weather radios as prizes. If you'd like to volunteer, e-mail her at sciencefair@twincitiesams.org.



Movin' On, Movin' Up, Movin' Out

Craig Edwards has recently been hired by Minnesota Public Radio to be their morning meteorologist. He can be heard mornings around 6:45 and 8:45, enlightening listeners across the state with his sage wisdom. And he can break into normal programming anywhere in the state if the weather warrants. Such power!

If you have any professional or personal news you'd like to share with the chapter, e-mail Kurt at newsletter@twincitiesams.org.



Tome Time

I'd like to try a new feature here called "Tome Time". It would basically be a place for people's (short!) reviews of weather- or meteorologically-themed books, movies, or TV shows. I don't think we'd need a long-winded write-up or critique; a couple of paragraphs of the main plot and how weather is involved would be fine. Send your reviews to Kurt at newsletter@twincitiesams.org.



A Look at Weather History: March 1985 *Anthony Stender*

I will always remember the Palm Sunday Snowstorm of March 31, 1985, because it was my confirmation day. I don't recall any snow being on the ground or falling that morning before church. What I do remember is the amount of snow on the ground after church. I also remember my aunt leaving church early in order to run to my family's farmhouse to check on dinner. However, we beat her into the house. She managed to get stuck in the middle of our driveway, and she was still trying to free her car when we arrived.

According to records going back to the 1890s, March of 1985 ranks third in the amount of snowfall to fall in one month in the Twin Cities. Only two days prior to the Palm Sunday snowstorm, no snow cover was measured at the airport. Temperatures had been in the 40s and 50s all week, with 67° F being recorded on the 26th. It was a moist week, too. Precipitation fell on 7 of the 8 days before Palm Sunday. On Sunday, a full 14.7 inches of snow fell, and the temperature hovered close to freezing throughout the day. The high and low temperatures that day were 33 ° and 27 ° F, respectively. But, the snow left almost as quickly as it came. Temperatures quickly rose back into the 40s and 50s, and all of the snow was gone by April 4.

It isn't as memorable to me, but March of 1985 began in a fairly similar fashion. The last week of February saw highs in the upper 30s with a quickly disappearing snow cover that was completely gone by February 26th. February 28 saw a high of 54 ° F, but the temperatures dropped back down after that. Then on March 3 and 4, 16.7 inches of snow fell on the Twin Cities. The week that followed this storm was fairly bitter for March, with lows dropping below zero for almost a week. This early March storm actually ranks as the sixth heaviest snowfall in the Twin Cities on record.

The previous Minnesota snow season of 1983-1984 saw the heaviest total snowfall for a single season at 98.6 inches. In comparison, 1984-1985 recorded 72.7 inches. Remarkably, almost half of those 72.7 inches fell during these two storms, and in total a full 36.8 inches fell during March of 1985, with only a trace

of snow falling for the rest of the season after the Palm Sunday storm. Keep that in mind this March as you watch the skies and wonder if you're going to win the Twin Cities AMS snowfall contest.

Sources:

Thank you to the Climatology Working Group for posting Twin Cities climate data online at:

http://climate.umn.edu/doc/twin_cities/twin_cities.htm



Minutes of the February 20, 2007, meeting Submitted by Lori Bovitz

The February 2007 meeting of the Twin Cities chapter of the American Meteorological Society was held on February 20, 2007. The meeting was called to order at 7:05 p.m. by President Chris Bovitz. Vice President Shelby McQuay and Secretary/Treasurer Lori Bovitz were also in attendance. About 12 members and potential members were also present.

The secretary and treasurer reports were read and approved.

Old business focused on the following:

- Requests have been starting to come in for science fair judges. Karen Trammell, science fair coordinator, needs volunteers for these events. Upcoming science fairs are listed on the chapter's Web site.
- The chapter has decided to provide weather radios as prizes for the science fairs. It was voted on and approved by the membership to use chapter funds to buy several weather radios for this purpose.
- We were contacted by the Bell Museum at the University of Minnesota to collaborate with on their fall program on climate. They are not sure of the details yet, but the chapter does plan to work with the museum as they plan their program. Anyone interested in working with the museum should contact the officers at officers@twincitiesams.org
- The Minnesota Skywarn Workshop was discussed. Several options are available to have visibility for the chapter at the Workshop. The membership decided to be a Sponsor of the workshop. For the \$100 fee, the chapter would receive a button on the workshop web site and mention between talks during the workshop.
- John Schmid updated the chapter on research into getting nonprofit status. He had contacted the national AMS and only received some cursory information. He will continue to research and try to talk to other chapters that have obtained nonprofit status. The purpose and advantages of having nonprofit status were restated at the meeting. If nonprofit status is attained, the Treasurer position will likely need to be spun off from the Secretary position due to the additional duties required.
- The location and speaker for the next monthly meeting were still being determined and will be announced at a later date.

Upcoming Events:

- Mar 3: South Central/Southwest Regional Science Fair. Location: Minnesota State University.
- Mar 20: Monthly meeting, 7:00 p.m. Location: TBD. Presenter: TBD. Topic: TBD.

Other Notes:

- Craig Edwards is appearing on Minnesota Public Radio as a weather expert during Morning Edition. His reports are heard between 6:45 and 7 a.m. and between 8:45 and 9 a.m. each day. He will not be providing forecasts; instead he will discuss issues related to the weather. He is also on call at all times to provide severe weather information for all of the MPR affiliates in the state.
- A speaker survey was provided to the membership. This survey asked the membership about topics and speakers that are of interest to them. The survey is also available on the chapter Web site at www.twincitiesams.org.

After the meeting, Chris Bovitz described the operations of the National Operation Hydrologic Remote Sensing Center (NOHRSC). First he described why collecting and providing snow information is so important. Many industries rely on accurate information on the current snow pack and the amount of water contained in the snow pack. This includes agriculture, tourism, water storage, transportation, any much more.

NOHRSC runs a snow model and there are three phases to running the model. First the data must be collected and input into the model, then the data is processed, and finally the output is provided.

NOHRSC takes in data in different ways. They take in surface observations of snow from over 25,000 different locations. In addition they fly airborne snow surveys numerous designated flight lines across 31 states and 8 Canadian provinces. They are also adding flight lines in portions of Alaska. Finally, they also take in snow cover analysis from the satellites. This is typically just the coverage and not the amount of snow. This provides an estimate of the land covered by snow.

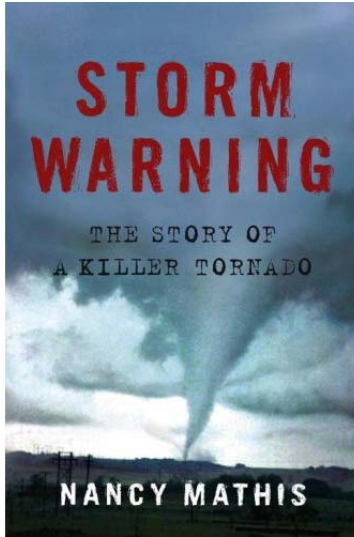
After all the data is collected, the data is added to the snow model. The snow model is based on the RUC and contains three layers of snow and two layers of soil. Several different variables are considered. The snow model consists of several modules that are used as needed.

Once the model is run a variety of output is provided. Much of the output is available on their Web site at www.nohrsc.noaa.gov. This Web site receives over 12 million hits per month and the number of hits has been increasing as knowledge of their group has spread via the media. On the web site are a wide variety of products. Over 2300 products are produced daily. These include the current observations, results of the model, and 3-D visualizations which can be used along with applications such as Google Earth.



Upcoming AMS Chapter Meetings and Other Events

Date & Time	Event	Location
March 20, 2007	March meeting Steve Buan has agreed to speak at the meeting Tuesday evening. He will be discussing the spring flood outlook and water management.	Twin Cities WFO Chanhassen, MN (map)
March 20-24, 2007	Minnesota State Science Fair	Cronwe Plaza Hotel, St. Paul St. Paul, MN (map)
April 12, 2007 7:30pm	National Geographic LIVE! Tim Samaras: Severe Storms Researcher	Pantages Theater Minneapolis, MN
April 14, 2007	Minnesota Skywarn Workshop	Discovery Center (at the public school district building) Buffalo, MN (map)
April 17, 2007 7:00pm	April meeting Speaker and topic TBD	to be determined
April 20-21, 2007	Minnesota Academy of Science Annual Meeting and Winchell Undergraduate Symposium	Hamline University St. Paul, MN
May 15, 2007 7:00pm	May meeting Picnic, recap of the year, elections, and planning for next year	Twin Cities WFO Chanhassen, MN (map)



We Get Letters, Lots and Lots of . . .

I wasn't sure what the protocol was here so I just thought I would introduce myself. I'm Nancy Mathis, and I've written a book called *STORM WARNING The Story of a Killer Tornado*. It's about the May 3, 1999 tornado outbreak in Oklahoma and Kansas and also about the history of tornado research and forecasting.

So far, it has received very good reviews. Greg Forbes, with The Weather Channel, called it wonderful. He said most books for public consumption make him cringe because of inaccuracies, but not this book. Reader's Digest will run an excerpt in its April edition. It features many people with whom you probably are familiar.

The book, published by Touchstone, a division of Simon and Schuster, will be available March 6. I wasn't sure if your AMS chapter had a newsletter where it might merit a mention. You also can find out more information at www.nancymathis.com Anyway, I just wanted to put it on your radar screen, so to speak.

Thank you,
Nancy Mathis

Storm Warning: The Story of a Killer Tornado (Hardcover)

by [Nancy Mathis](http://www.nancymathis.com) (Author)

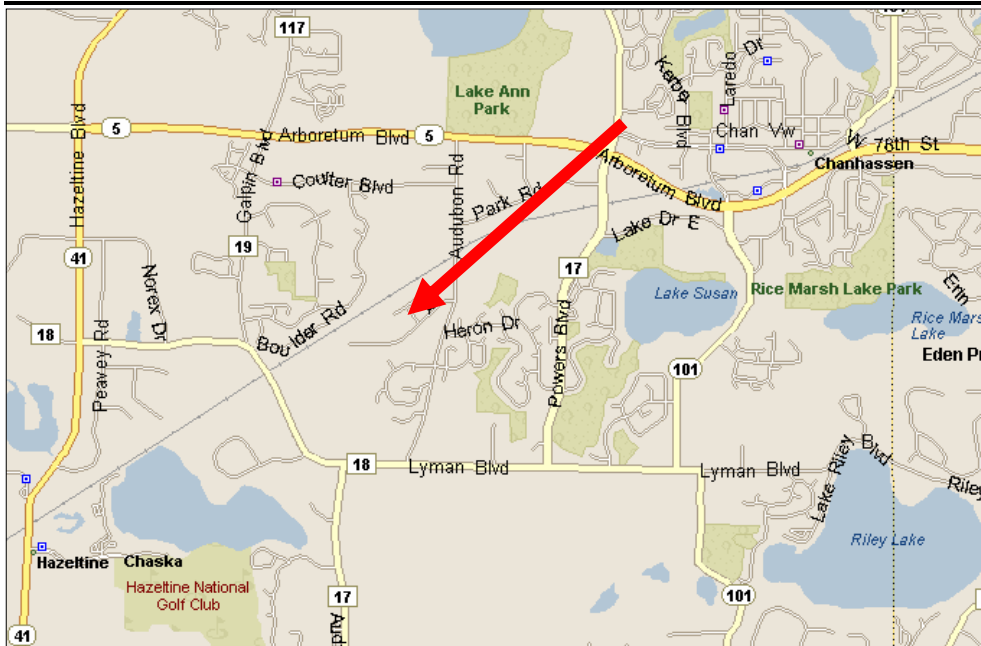


AMS on the WWW

Please check <http://www.twincitiesams.org> for lots of interesting information, changes and updates. Thanks to Chris and Lori Bovitz for their hard work.

The March meeting will be held at 7pm, on Tuesday, March 20, 2007, NWS, 1735 Lake Drive West, Chanhassen, MN.

Directions



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

Please fill out this form and mail it in with your annual Chapter dues (\$20 regular, \$6 student). This information is used for Chapter purposes only, and only your name will be listed on the Chapter web site.

Name _____ Daytime phone _____

Address _____

City _____ State _____ Zip code _____

E-mail address _____ If you prefer to be notified via e-mail when the newsletter is posted on our website, rather than having us mail you a paper copy of the newsletter, check here _____

Suggestion for an AMS meeting topic _____

Dues are \$20 per year for regular membership, \$6 per year for student membership.

Make checks payable to Twin Cities AMS, and mail to:

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Lakeville, MN 55044



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c/o Kurt Scholz
3233 Snelling Ave. North
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