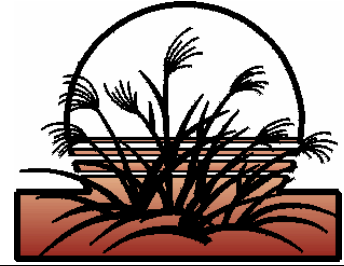




**NEWSLETTER
TWIN CITIES CHAPTER
AMERICAN METEOROLOGICAL
SOCIETY
November, 2007 Vol. 29 No. 3**



The meeting of the Twin Cities Chapter of the AMS will be at 7 PM Tuesday, November 13th, 2007, Steak and Ale, Bloomington. Specific directions to the meeting can be found on page 5. AMS chapter members, interested acquaintances and potential members are invited to attend.

If you are planning to attend the Twin Cities AMS meeting at Steak and Ale on November 13, please tell me by Saturday, November 9, so I can give the restaurant some final numbers. Nonmembers are welcome. I need to know who will be coming for dinner (arrive by 6pm), for the meeting (arrive by 7pm), or both. There might be a space limitation, so it might be first come, first served. You can e-mail me at president@twincitiesams.org or call me at 952 469-6425.

Speaker: Rich Naistat



Topic: The Rogers Tornado: Inspector General's Visit

Rich's unique perspective of the DOC Inspector General's report on the Rogers tornado of September 16, 2006. Rich is keeping it close to the vest on this one, with only the comment "Warning: This presentation represents only the view of the author".



President's Corner: Chris Bovitz

I don't have much to say this month other than keep spreading the word about our group! It's more fun with more people. And keep up to date on all the chapter's activities - past and future - at our web site at twincitiesams.org. This chapter is what you make it. If you want to have fun, let's do that. If you want to educate, let's do that. But let's do *something*. We officers can't do it all. We only build the ship. You fill the sails.

Movin' On, Movin' Up, Movin' Out

If you've heard some news about a member, send it to Kurt (newsletter@twincitiesams.org).

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.

Member Sign-up and the Member Page

This year, we have a new and improved [member application page](#) to support our 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.

We're 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's something you don't 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 October 2007 meeting

The October 2007 meeting of the Twin Cities chapter of the American Meteorological Society was called to order at 7:02 pm on September 18, 2007 by President Chris Bovitz. Secretary/Treasurer Lori Bovitz was also in attendance along with approximately 10 members and potential members.

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

A report about Scout Day at the National Weather Service office was provided by Matt Friedlein. Chapter member Lisa Schmid was also in attendance at the event. Scout Day provided tours and experiments to help local Boy and Girl Scouts meet the requirements for their weather merit badges. It was well attended with over 350 scouts. The NWS plans to do this event again in 2008. The local chapter of the AMS will try to have a presence as well.

A report about the 3M science workshop was provided by Doug Dokken. The event provided science exposure to almost 350 elementary and middle school teachers on Friday October 5th. On Saturday, a program was held for 3M employees and their families. It was noted that next year they would like some employees of NWS to attend and the local chapter will also try to have an expanded presence. At the event, Dokken displayed some numerical weather simulations and radar data for the St Peter tornado of 1998 and the Oklahoma City tornado in 1999.

Several upcoming events were discussed. The Northern Plains Winter Storm Conference will be held on the 24th and 25th of October in St Cloud. Members Chris Bovitz and Karen Trammell will be presenting. The next meeting will be November 13th at the Bloomington Steak n' Ale. Retired NWSFO SOO Rich Naistat will be presenting his interpretations of the Rogers, MN tornado Inspector General report.

The business portion of the meeting was adjourned at 7:17 p.m.

After the meeting, Lt. (jg) Pat Didier and Lt. David Demers gave a presentation on the snow surveys done by the National Operation Hydrologic Remote Sensing Center in Chanhassen, MN. The meeting was held in the hanger of Executive Aviation at Flying Cloud Airport where the planes used to do the snow surveys are housed.

Didier and Demers are pilots who fly the flight lines to determine the snow water equivalent in the snow pack during the winter. Both pilots are part of the NOAA Corps aviation program. They started out the presentation with a brief description of NOAA corps.

Next, Didier and Demers described the snow survey program. The program was started in the 1970s by Dr. Tom Carroll. The snow survey program measures the amount of water contained in the snow pack by measuring the amount of gamma ray reduction from the ground. The soil contains different isotopes of uranium, potassium and thallium. Water attenuates the emission of these isotopes and the amount of attenuation indicates the amount of water contained in the snow overlying the soil and the top 20 centimeters of the ground.

The pilots fly one of two planes along predetermined flight lines about 500 feet above the ground. Based on measurements made just before the soil freezes and the measurements made during the flights after snow has fallen, the amount of water in the snow pack can be determined. There are currently about 2400 flight lines in the United States, southern Canada and Alaska. In some areas, flights are done just before the soil freezes to get a baseline radiation measurement and this baseline is compared to the radiation measurements taken after the snowfall. The pilots fly about 12 to 15 missions per year. Each mission lasts 3 to 4 hours and about 5 to 10 minutes are spent on each flight line.

Measurements are taken using sodium crystals onboard the plane. These sodium crystals detect the gamma radiation from the soil. The information gathered from the sodium crystals is run through a computer onboard the plane to determine the amount of water in the snow pack. Five sodium crystals are carried on the plane with two facing up to help strip out the amount of background cosmic radiation, and five facing down to detect the radiation in the soil.

The presentation concluded with a question and answer session and a look at the two planes and their instrument packs.

Upcoming AMS Chapter Meetings and Other Events

2007-2008 Chapter Year		
Date & Time	Event	Location
Tuesday, November 13 7:00 pm	November meeting Speaker: Rich Naistat Topic: His take on the DOC Inspector General's report on the Rogers Tornado	Steak and Ale Bloomington, MN (map)
Second week of December 2007 7:00 pm	Tour of KSTP	KSTP-TV Studios St. Paul, MN (map)
January 2008 7:00 pm	January meeting Speaker: Bill Sites Topic: Life aboard a NOAA Corps ship	Twin Cities WFO Chanhassen, MN (map)
January 20-24	88th Annual Meeting of the American Meteorological Society	New Orleans, LA
February 2008	February meeting Speaker and topic: tbd	tbd
March 2008	March meeting Speaker and topic : tbd	tbd
April 2008 7:00 pm	April meeting Speakers: Seniors at St. Cloud State University Topic: Their senior theses	St. Cloud State University St. Cloud, MN
May 20, 2007 7:00pm	May meeting Picnic, recap of the year, elections, and planning for next year	Twin Cities WFO Chanhassen, MN (map)



A Look at Weather History: November 28, 1905

Anthony Stender

This interesting story actually began in the year 1871. At that time, the residents of Duluth decided to dig a canal through a narrow stretch of land known as Minnesota Point. The city of Superior, Wisconsin, tried to stop the canal by taking legal action, but citizens of Duluth trenched it out over the weekend, when the courts were closed. The landowner even tried to stop ships from passing through the canal once it was established. Eventually, the landowner gave up, moved to Seattle, and his son formed the Boeing aircraft company.

At some point in time between 1871 and 1905, concrete piers were added to the canal, and in 1905, the first lift bridge was built across the canal. The aerial lift bridge was upgraded to its current design in 1929-1930.

Late November of 1905 was stormy on the Great Lakes. The Duluth area saw one storm linger over the area from the 23rd to the 25th of the month. Temperatures were near 50° F at the start of the storm, but they dropped below freezing each night. Many ships in the area decided to wait out the storm instead of trying to go out into the weather. Finally, the storm cleared on November 26, and ships began leaving the western shore of Lake Superior for eastern ports. A second, fiercer storm dropped onto the lake right behind the ships on the afternoon of November 27. This time, the temperatures were already below freezing, and they dropped into the single digits during this storm. In fact, the temperature dropped to -10° F after the storm passed on November 29. Fifty to sixty mile per hour winds blew across the lake during the storm, with gusts up to eighty miles per hour.

This storm has been named the Mataafa Storm, after a steamer that was pulling a barge full of iron ore from the Mesabi Range. On the 28th, the captain of the *Mataafa* decided to head back to Duluth harbor, while the barge was anchored out on the lake. The winds, however, drove the *Mataafa* sideways into the north pier of the canal to Duluth harbor, where she sank into the shallow water. Nine of the ship's crewman died that night, and the survivors were forced to wait out the storm aboard ship. The ship was left in its spot for six months before it could be brought into the harbor and repaired. Incidentally, the same ship ran into one of the piers again during a storm in 1914.

Also during the Mataafa Storm, a ship called *The Madeira* ran aground at Gold Rock. One quick-thinking man, Fred Benson, managed to save most of that ship's crew from death. But as a result of this shipwreck, Split-Rock Lighthouse was built at Gold Rock in 1910. In total, between 20 and 30 ships sank during the Mataafa Storm, and the financial losses from it were estimated to be over \$1 million.

Sources:

1.2. Wikipedia, and climate.umn.edu

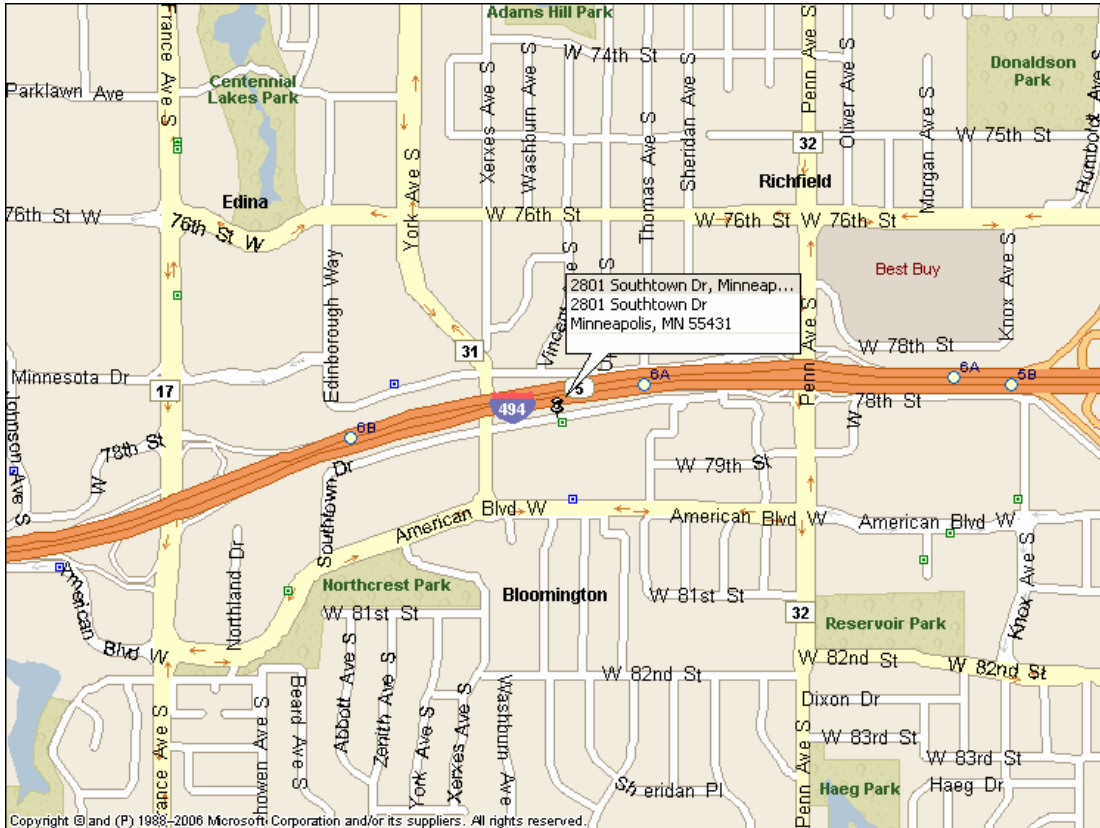
3. Lake Superior Shipwrecks: Madeira, Minnesota Historical Society on the web at <http://www.mnhs.org/places/nationalregister/shipwrecks/madeira/maddwe.html>

4. Labadie, P., The Port's Past: Famous for all the wrong reasons at <http://www.duluthport.com/99fall/famous.html>

5. Aerial Lift Bridge, Minnesota Historical Society, at http://nrhp.mnhs.org/property_overview.cfm?propertyID=22

AMS on the WWW

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



The November meeting will be held at 7pm, on November 13th, 2007, at Steak and Ale, 2801 Southtown Drive, Bloomington, MN

Please fill out this form - either online or printed - and send it in with your annual Chapter dues (only by regular mail), whether or not you are entering the forecast contest. This information is used for Chapter purposes only, and only your name will be listed on the Chapter website, unless you tell us otherwise.

♣ information required for membership
♦ information which be posted on the member page unless you tell us otherwise

♣ Type of membership desired

Regular member (dues: \$20/year with hardcopy of newsletter, \$18 with electronic copy)

Student member (dues: \$6/year with hardcopy of newsletter, \$5 with electronic copy)

Personal information

♣ ♦ Name: _____ Don't publish my name

♣ Street address: _____

♣ ♦ City: _____ Don't publish my city

♣ ♦ State/Province: _____ Don't publish my state/province

♣ ZIP/Postal code: _____

♦ Country (if not USA): _____ Don't publish my country

Telephone number: _____

♣ ♦ E-mail address: _____ Don't publish my e-mail address

♦ Occupation/job title: _____ Don't publish my job

♦ Place of work: _____

You may also send us a picture of yourself for the [member page](#). Please limit the size to at most 200 pixels on a side. Attach it to the e-mail that pops up when you submit your application, or [create a new message](#) and attach it to that. Pictures (and other information) will be screened, so don't try to get cute. Okay, maybe a little.

If you've never been a member of our chapter before, how did you hear about us?

Suggestions for meeting topics or speakers:

Other ideas for the chapter:

You may also send e-mail to info@twincitiesams.org if you need to elaborate more than what there is room for here.

After submitting this form, send a check (payable to **Twin Cities AMS**) with the correct amount of dues (as noted above), to

Twin Cities AMS
c/o Lori Bovitz
20716 Hurley Ave.
Lakeville, MN 55044

Weather forecast contest entry

Entries for the weather contest will be accepted through December 15, 2007. We must receive your dues by then for your entry to qualify.

in = Total snowfall from December 1, 2007, to May 1, 2008,
as recorded at the MPX WFO in Chanhassen, MN

°F = Coldest temperature for the winter (December 22, 2007, through March 20, 2008)
as recorded at MSP International Airport

°F = Tiebreaker: Warmest temperature for the winter (December 22, 2007, through March
20, 2008)
as recorded at MSP International Airport

Twin Cities Chapter AMS
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3233 Snelling Ave. North
Arden Hills MN 55112-3644

