



Hamtrix

Volume 53, Issue 3 March, 2008

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Meetings & Events



March 9

WI QSO Party

March 11

Club Meeting

Program:

Six Meters

The Magic Band
by **Wes Andersen, N9YE**

March 25

Board Meeting

March 30

Material Due for Next
Hamtrix

April 8

Next Club Meeting



The President's Shack

by *Howard Smith, WA9AXQ*

I kept my promise and challenged you to find the prize hidden in the February Hamtrix. I received no calls so I assumed that nobody found the prize, or worse, nobody had read this column and did not even know there was a hidden

prize. At the February meeting, several people said they looked for the prize, but could not find it. One person said he had found it but thought that he already had the item and did not call. The prize was the ARRL Antenna Book. It appeared on page 4 as part of the "Thanks!" block on the lower left of the page. It was the third "person" to be thanked and appeared as *Antenna Book, WI1AW*. I hope you all enjoyed the challenge and thanks to Tom, K9BTQ, for doing such a good job of hiding it. I may do this again.

(Continued on page 7)

You're invited!

Wisconsin QSO Party

1800Z March 9 to 0100Z March 10

Local Time: Sunday, March 9 - 1:00PM to 8:00PM

Note: This is the first day of Daylight Savings Time!

NOW THE BIG ONE

THE 2008 WISCONSIN QSO PARTY

by *Lynn Tamblyn, K9KR, WIQP Chairman*

Plan to join fellow club members this coming Sunday, March 9, starting at 1:00pm local time. The Wisconsin QSO Party (WIQP) runs for 7 hours, until 8:00pm. Participate as much as you want.

I hope you managed to get some practice operating time in during the North American QSO Party, and then some additional practice operating time during the Minnesota QSO Party, which I spoke about in my previous Hamtrix article

If not, I still encourage you to participate in WIQP. It is really a lot of fun, and does not require that you be a contester. You could operate to see how many of the 72 Wisconsin counties you can contact to qualify for your *Worked All Wisconsin Counties*

(Continued on page 5)



From the Minutes...

By Lynn Tamblyn, K9KR
Secretary

**Minutes of the General Meeting
February 12, 2008**

The meeting was called to order at 7:43 PM by President Howard Smith.

Visitor - John "Jackie" Jurek, KC9MJO, was introduced. Club members then introduced themselves to our guest.

Minutes - the membership approved the minutes as printed in Hamtrix.

Program - WIQP Informal Discussion by Chairman Lynn, K9KR. The program began with a discussion on WIQP as it related to: increasing club membership participation; helping the non-contest members perhaps getting interested in contesting; and helping the newer club members get on the air. At this point, Lynn, talked about a number of points that were presented in the N9FH article in this month's Hamtrix. Lynn then had a round table discussion with each member, regarding their station, if they were interested in contesting, and what their plans were for WIQP, if any. During this discussion, a lot of interesting suggestions for WIQP operation were given by the membership.

The meeting was adjourned at 8:53 PM, followed by refreshments and eyeball QSO's.

Respectfully submitted,
Lynn Tamblyn, K9KR

**Minutes of the Board Meeting
February 26, 2008**

The meeting was called to order at 7:38 PM. by Howard Smith. Board members present: Wes Andersen, George Dunco, Tom Macon, Howard Smith, Lynn Tamblyn, and Dick Wood.

Hamtrix Door Prize Experiment- Howard put an item in the February Hamtrix. One person claimed he saw the item mentioned. However, no one called Howard. As a result, the item was not given away at the February meeting. The result of this experiment is unknown.

WI QSO Party - waiting for March 9 to arrive. Tom mentioned that there will be link established on the club website, as an experiment, using APRS, to allow interested persons to determine where mobiles are located in Wisconsin during WIQP.

Scholarship Fund - Dick Wood gave Howard the annual scholarship check, to be sent to FAR, which Howard will be sending in shortly. Howard also mentioned he has the CD listing grant sources, but has not had time to look at it.

Club Repeater - the repeater still keys up. The off Tuesday net was held on the repeater with no problems noticed. General comments indicated the repeater was working great. George mentioned he had used it tonight on the way to the meeting.

Meeting Attendance Survey - Howard suggested that one Board member and one club member-at-large, could do the questions for a survey, followed by a Board review and discussion of the questions. After a general discussion, Howard agreed that a 5-member committee should be established, consisting of Wes Anderson and George Dunco, from the Board, along with 3 club members-at-large. Since Howard will not be at the March 11 club meeting, Vice-President Tom will handle the discussion at the meeting, and the appointments, if there are any volunteers.

Club Manual - Howard indicated he is still thinking about what to put in his outline.

Programs - the March program will be by Wes Anderson, who will be doing a program on 6 meters. The tentative April program will be "Elmering". There was discussion on a number of possible programs, such as Telnet, APRS, Amateur TV, and HD TV.

Club Books Audit - Howard asked about the annual audit of the club books. With busy schedules and vacations, it has not happened. At present, it looks like this cannot be done until sometime in April at the earliest.

(Continued on page 6)

| 2007 WARAC Officers and Board | | | Hamtrix — Editor & Publisher | |
|-------------------------------|-------------------------|--------------|-------------------------------------|--|
| President | J. Howard Smith, WA9AXQ | 414 425-5626 | Submit newsletter material to: | |
| Vice President | Thomas W. Macon, K9BTQ | 414 543-3878 | Tom Macon, K9BTQ | |
| Secretary | Lynn C. Tamblyn, K9KR | 262 534-9655 | 3547 S. 95 St | |
| Treasurer | Richard M. Wood, W9JBE | 262 542-5118 | Milwaukee, WI 53228 | |
| Director (2008) | Robert F Zach, KC9AGX | 414 328-3691 | 414 543-3878 | |
| Director (2009) | George Dunco, AA9SR | 262.782-6325 | tmacon@wi.rr.com | |
| Director (1 year) | Wes Andersen, N9YE | 414.423.0640 | | |
| Board Chairperson | J. Howard Smith, WA9AXQ | 414 425-5626 | | |

WINTERTIME TRAPS

by Tom Macon, K9BTQ

After putting up a tower and a 10/15/20 meter antenna a year and a half ago, I've been wanting to do something about 80 and 40 meters. The base-loaded vertical piece of wire that uses a rain gutter for its ground plane just wasn't doing it, especially on 80m.

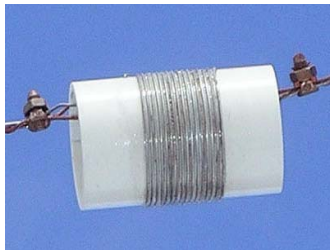
The trouble is that I don't have much room - not enough for a 80m dipole. In fact, the standard commercial trap dipole that's about 108 feet long won't even work without doing something that the XYL wouldn't approve of. The best I can do is about 90 feet of wire length in an inverted V configuration with my tower at the center.

So I had to come up with a design that was no more than 90 feet long. A standard 108-foot trap dipole uses traps tuned for about 7200 kHz and the portion of the antenna that's between the traps is basically a 40-meter half-wave dipole. When operated on 40m, the traps are near resonance and present a very high impedance, which acts like an insulator and essentially disconnects outer wire segments. The antenna is then resonant and behaves much like the 40m dipole that it is.

The traps, since they are parallel tuned circuits, become inductive at frequencies below resonance. On 80 meters, this inductance acts as a loading coil and, with

the outer wire lengths, the whole antenna becomes a loaded half-wave dipole. The trick is to use the correct capacitance and inductance in the traps together with the necessary outer wire lengths to make it resonate at the desired frequencies. Of course, when you buy a commercial trap dipole, this is all figured out for you.

Although many trap dipoles use traps resonant on 40m as described above, there is nothing that says it must be this way. If the trap resonance is lower than 40m, then the traps look capacitive, which makes the antenna look electrically shorter than it actually is, and on 80m they still look like loading coils to make the antenna look electrically longer. Since lowering the trap resonance requires more inductance and capacitance, both the inboard and



outboard wire segments tend to get shorter. Again, the trick is to find the correct capacitance and inductance for the traps together with the necessary wire lengths to make it all work.

Thanks to the EZNEC antenna modeling software, I could cut and try different designs in the comfort of my house. With EZNEC you can add traps, which are essentially "lumped" amounts of C and L (along with some R to simulate losses) at any desired point on the antenna wires.

(Continued on page 4)

County Confusion

Wisconsin county names can be confusing. Here are a few to watch out for. Don't lose a multiplier by using the wrong abbreviation!

- Green county (GRE) and Green Lake county (GRL) are two different counties.
- Washington (WAS) and Washburn (WSB) are easily confused.
- Three county names start with **Wau..** - Waukesha (WAU), Waupaca (WAP) and Waushara (WSR).
- Three county names start with **Mar..** - Marathon (MAR), Marinette (MRN), and Marquette (MRQ)

Ham Happenings

Around the area

Menomonee Falls Club

Bank One
Pilgrim & Mequon
Germantown
Wed, March 26, 7:30PM

Milwaukee Radio Amateur Club (MRAC)

Redemption Lutheran Church
Hwy 100 & Capitol
Thurs, March 27, 7:00PM

Ozaukee Radio Club

Grafton Senior Center
1665 7th. Ave.
Wed, March 12, 7:30PM

CQ3TUE

Old Country Buffet
16750 W Bluemound Rd
Tues. March 18, 11:15AM

South Milwaukee Amateur Radio Club

Wed. April 2, 7:00PM
Legion Post 434
Shepard Ave
Oak Creek, WI.

Amateur Radio Testing

Saturday, March 29
8:30AM

*One hour earlier
because of Superfest*
Amateur Electronic Supply
5720 W. Good Hope Rd

NOTE

Please do not contact
meeting places for
information.

Upcoming Meeting Programs

March 11

Six Meters

The Magic Band
Wes Anderson, N9YE

April 8

Elmer Night

Save up your questions!

Tentative Future Programs

Weather Forecasting

Telnet DX Spotting

Amateur Television

Have an idea for a program?
Something you'd like to hear about?

Let us know - Contact a Board member!

Scuttlebutt...

- Word has been received that Gil Scholz, W9TPO, became a silent key on March 1. Gil was an active WARAC member in the 1960's and 70's. In recent years he lived in San Antonio, TX, where he passed away. He was 85.
- Howard Smith, WA9AXQ, and XYL Vicki are proud first-time grandparents with the birth of Andrew John on February 18. The little guy weighed in at 9.2 lbs and 20.3 inches.
- March 28 and 29 is the annual Superfest at Amateur Electronic Supply. Our club will be manning a PR table there and help is needed - more about this at the upcoming meeting.
- Bill Brossman, W9EQP, who is net control of the Milwaukee-Florida Net, celebrated his 99th birthday on February 20. Bill was first licensed as 9EQP in 1927. We're looking forward to his 100th next year! The MKE-FLA net meets on 14.290 at 7:00AM.

Trap Dipole

(Continued from page 3)

And, of course, you can also vary the wire lengths.

Since I had a couple of 50pf ceramic "doorknob" capacitors, I tried to make the design work with this

The completed traps resonated around 6050 kHz, pretty near what was predicted by the inductor design and LC tuned circuit design spreadsheets that I've cobbled together over the last few years.

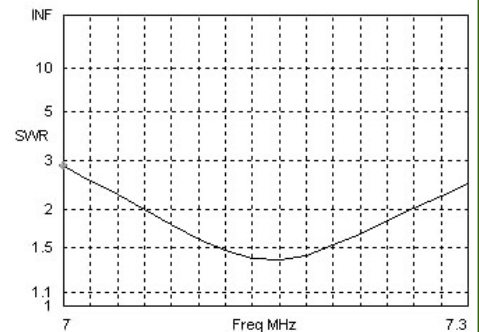
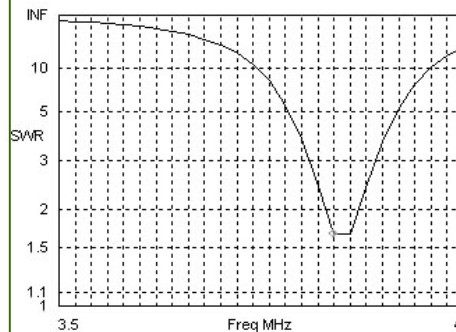
So I put the antenna together with

Thanks!



Thanks and a tip of the editor's hat to the following contributors to this month's issue of **Hamtrix**

Lynn Tamblyn, K9KR



The SWR's predicted by EZNEC. The actual 80m bandwidth matches this graph quite closely. On 40m, the actual SWR is lower than the graph with the entire band under 2:1

value. This turned out to be a good choice. I zeroed in on a design that yielded about 90 total feet of wire length with 14µh of inductance and the 50pf caps. Exactly what I needed. The 14µh was achieved with 17 turns of 14-gauge wire on a short piece of two-inch PVC pipe.

some extra length of wire and split bolts on each side of the traps, so the lengths could be easily adjusted.

In mid-February there was a rare nice sunny day when it wasn't below zero. This, by luck, happened to be the day that I had arranged with Phil,

(Continued on page 7)

Write an Article

This means You!

Please??



Now the Big One*(Continued from page 1)*

award. You might operate to see what band conditions are like these days and how well your antennas are doing. You might want to work the bugs out of your station equipment. Maybe you just want to chat with other club members. Or all of the above. 100 watts and a dipole antenna can do wonders on HF on 40 meters and/or 75 meters. If not on HF, then a VHF and/or UHF radio will work too.

First let me mention a very fine article on page 73 in March *QST* on contesting by the new ARRL contest branch manager, Sean Kutzko, KX9X. I suggest you read that. It has lots of good ideas. Second, please read the WIQP rules and keep them handy during your operating, in case of additional questions.

Now, rather than ramble on about what WIQP is and does, I thought this year I would offer a few tips to the newer members who have not operated in WIQP before. Contesting can seem a bit frustrating at first. After a few contacts, it becomes quite easy. Basically, the idea is to make a short contact with another station, and “exchange” whatever information that contest requires. WIQP requires that Wisconsin stations exchange their *county*. For stations not in Wisconsin, the exchange is either their *State*, *Province* or *DX* (which is usually their *country*). Some stations send a signal report, but that is not required.

To start on HF, I would suggest you begin your participation by listening on 40 meters around 7230 KHz, where the activity will be concentrated at the start of WIQP, until you become somewhat familiar with what stations are saying and doing - basically stations will be calling something like “CQ contest, CQ Wisconsin QSO party, this is K9KR, Kilo Nine Kilo Radio“. Other stations will be contacting stations that are calling CQ. Listen to a few contacts made by each station to see how they operate. Then slowly tune up or down, to another frequency, and listen to another station to see how that station is operating. You might find the procedures similar or a bit different. In contesting, there is no specific way of making contacts. Then move again and again, till you get a good feel for what is happening. Pay attention to what the stations are saying and doing, most specifically to how stations answer the CQ-ing station. Most stations will probably just give their callsign when the CQ-er finishes calling CQ. After listening for a while,

kind of formulate an “answering system” that sounds good to you.

Now that you know what you want to say, lets try a contact. Find a CQ-er and call him by saying your full callsign only - you do not need to say his callsign. Wow. He heard you and is now calling you! He will probably say your callsign and then tell you what county he is in (if from outside of Wisconsin he will send you his state, province or country). I assure you that fright will set in at this point. That is the reason I said above that you needed to formulate an “answering system.” Now use that system. Tell the CQ-er that you QSL and then what county you are in. He will also QSL and begin calling CQ again. Easy wasn’t it?

I would suggest that you begin learning by just contacting CQ-ing stations. Take your time doing them.

Make sure you log each one before you move on. Don’t get frustrated if someone else talks to the CQ-er before you do - other stations might be stronger or they might have better propagation to the CQ-er than your signal does. Just keep trying. You will eventually have success. Soon you will be “racking up the points in WIQP”.

After a while, you might find band conditions on 40 meters become difficult. That is when you might want to consider moving to 75 meters. Try somewhere around 3890 KHz, where you should find WIQP activity. The same comments that I made about 40 meters, apply on 75. Please note that since 75 meters is a new band, WIQP rules allow you to re-contact the same stations that you talked to on 40 meters.

Not on HF. Well, try VHF and/or UHF or higher - any band where contesting is allowed will work. On VHF, UHF and above, it is a bit easier than on HF, due to having only a few specific simplex frequencies available (repeater contacts are not allowed - only simplex contacts). We suggest you do not use 146.52. Listen to the other simplex frequencies for activity. There are lots of stations in the greater Milwaukee area that participate, so you should hear activity. There will also be some mobile stations passing through the Milwaukee area that you should be able to contact as they move about (note: WIQP rules also allow you to contact the mobiles again when they change counties). The procedure is the same as for HF - listen for a CQ-er and call them. When you make contact, exchange counties with them. Please be a

“WIQP requires that Wisconsin stations exchange their *county*. For stations not in Wisconsin, the exchange is either their *State*, *Province* or *DX* (which is usually their *country*)”.

- Lynn, K9KR

(Continued on page 6)

Now the Big One

(Continued from page 5)

little careful, especially when using FM, as the capture effect might have you thinking you worked a station, when you did not. Make sure the contact is acknowledged with the other station. Again, be sure to log the contact right away.

Speaking of logging, I want to talk a bit about that too. The club website has a logging program suggestion - namely, N3FJP. Scott's program can be downloaded for free, although it will stop working at 30 contacts. Download it and play with it a bit *before* the contest starts. I am positive you will find it very user friendly. If you like it, pay the \$6 fee and get the full version with no contact limits.

Since most people use computers, I do not want to dwell on specifics other than what I mention below. If you are not computer savvy, then I suggest you call someone in the club for help. Tom Macon has volunteered to help, including home visits, if needed. Of course, you can always use paper logging.

So let's point out a few items on using N3FJP for logging. There are two things I believe you need to make sure of when using the N3FJP program. First, when you do the **Setup Information** screen, make sure you enter

the 3-letter abbreviation for your county, which you will find on the club website, under WIQP. I suggest that you download those abbreviations and keep them handy. You will probably need them, as some stations will give the abbreviation while others will do the full county name, so having the list handy will allow you to cross between the full county name and it's abbreviation.

Number two, use **Tab** to move between **Call, St/Prv/ Country** and **WI County** fields. Use **Enter** only to log the contact. I say this because if you use just **Enter** to move between fields, and you make a mistake with a callsign, state or county that needs correction, the contact is already logged. To fix that mistake takes a lot of extra work. Using **Tab** allows you to fix the mistake before you **Enter** the contact. I also have placed item by item procedures on the club website that will help you with N3FJP, with using the program and/or saving the WIQP file you will create when you are finished operating WIQP and/or with sending in your log electronically.

Again let me say, WIQP is a lot of fun. Plan to participate in part or all of the event. I hope to work you. If I can help, please let me know. Before and after WIQP.

Good luck!

Minutes

(Continued from page 2)

AES Superfest - Howard mentioned that WARAC does have a table, and that we will need club members to man the table on Friday and Saturday, March 28 and 29.

Field Day - Chairman Tom talked a bit about whether we want to look into a new site or if we stay with the present one.

The meeting was adjourned at 9:25 PM.

Respectfully submitted,

Lynn Tamblyn, K9KR

APRS Rover Tracking

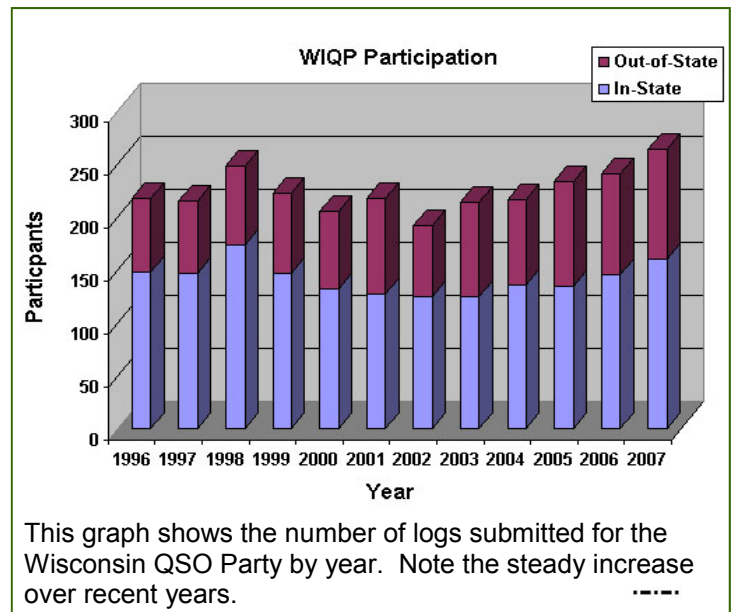
New this year!



During WIQP, roving mobiles with APRS/GPS capability can be tracked live on the Internet! For more information, see the WARAC web site at: www.warac.org/wqip (near bottom of page).

Visit the web site for all WIQP information - Rules, Multiplier lists, County maps, and more.

Need a printout? Download the **WIQP Package .pdf** file - it's already formatted for printing.





March 7 - Ray Massie, WB9WNA

March 13 - Ed Seruga, KE9JJ

*Wedding
Anniversaries*

<None to report >



President's Shack

(Continued from page 1)

You may have noticed that this Hamtrix arrived a little early. This is for a specific reason - it's a reminder that the Wisconsin QSO Party is this coming Sunday, March 9th. That day is also the start of daylight savings time, so don't forget to set your clocks ahead one hour. The contest runs from 1:00pm CDT to 8:00pm CDT. I'm sure that I don't need to remind you that we sponsor this contest and it is one of the best QSO parties in the country.

Be sure to read the article in this Hamtrix by Lynn, K9KR, the WIQP committee chairman. You may also want to re-read the WIQP articles in the February Hamtrix. The article by Fred, N9FH, is particularly good, as is the one by Paul, WB2ABD.

WIQP is such an easy contest to participate in. You just need to know your county and you are all set. And the task of logging your QSO's is really easy using the program from N3FJP. The program will even create the Cabrillo log file that is the preferred format for sending

in your results. You can either mail a printed copy, or, better yet, email it as a file attachment. There were 12-14 club members that participated in the ARRL 10 meter contest. I would like to see even more members participate in the WIQP. More members participating means a higher club score! Again, this is your reminder. Participate in the WIQP. It's a blast. Have some fun. I'll be on 40m and 80m phone, and I hope to add you to my list of QSOs.

Unfortunately, I will not be at the upcoming meeting because I will be in Costa Rica visiting my daughter Rebecca, her husband, Rafa, and their new baby, Andrew John. But the meeting will go on with Tom, K9BTQ, taking my place. There will be a little time for the WIQP soapbox, and then Wes, N9YE, will present *Explore the Mystery and Wonder of Six Meters, the Magic Band*.

Enjoy the meeting...

73..

Howard Smith, WA9AXQ

Trap Dipole

(Continued from page 4)

W9NAW, and John, K9IAC to put the antenna up. Phil's part of the job, attaching the center of the antenna to the tower and routing the coax went fine. Getting the ends in place, one on the front corner of the house and the other on the back peak of the garage was a bit of a challenge because of the deep snow. And, in order to tune the antenna, we had to walk the ends back to the tower base three times, so this took a while..

All in all, the antenna works pretty much as designed except that the wire lengths are a foot or two shorter than predicted. Having traps that are not resonant at 7200 kHz has another advantage - bandwidth on 40m. The SWR turned out to actually be lower than EZNEC predicted - below 2:1 across the entire band, phone and CW.

Unfortunately, this is not the case on 80 meters. The

bandwidth below 2:1 is only about 100kHz (± 50 kHz) and it rises to about 10:1 at a point 200kHz away from resonance. So a tuner is definitely needed to cover the whole band. But this isn't a big deal because my MFJ tuner, once set up, tunes it nicely with one knob over the upper half of the band.

With the antenna finally flying high, the big question is how well does it work. I was able to check into various nets in Wisconsin, Michigan and Minnesota on 75 meters running 100 watts with no problem and received excellent signal reports. I participated in the North Carolina QSO Party two weeks ago and was able to work all the stations I could hear in the Tarheel state - 30 of them. I'm happy with it - it works at least as well as I hoped, probably better.

This weekend will be the biggest test yet - WIQP!

West Allis Radio Amateur Club, Inc.
Tom Macon, K9BTQ
3547 S. 95 St
Milwaukee, WI 53228

WIQP
WIQP

Sunday, March 9, 1:00 PM



WEST ALLIS RADIO AMATEUR CLUB, INC.

PO Box 1072

Milwaukee, WI 53201

W9FK / Repeater 145.170 MHz (-600kHz offset)

<http://www.warac.org>

***See our Web Page or contact us
for more information on***

- WARAC Memorial Scholarships
- Wisconsin QSO Party
- Midwinter Swapfest
- Worked all Wisconsin Counties Award
- Amateur Radio Classes

WARAC holds meetings on the second Tuesday of each month and board meetings on the fourth Tuesday of each month. Meetings are held at 7:30 PM at:

**St Peter's Episcopal Church
7929 W. Lincoln Avenue
West Allis, WI**

Entry is off the alley at the rear of the church.
A wheel chair ramp and chair-lift are available.