



Hamtrix

Volume 54, Issue 12 December, 2009

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Meetings & Events



December 8
Club Meeting

Program:

CQ Contesting

From CQ Contesting Video
7:00 PM Church Basement

December 6

Annual Awards Dinner

**No Board Meeting
in December**

January 3, 2010

Material Due for Next
Hamtrix

January 9

WARAC Swapfest

January 12

Next Club Meeting



The President's Shack

by Howard Smith,
WA9AXQ

I know many of you have already paid your dues. But for those who haven't, please bring them to the December meeting, and give them to Chuck, WB9PUB, the club treasurer. If you cannot make the meeting, you can mail a check to our club PO box, and I will see that Chuck gets your check. All dues need to be paid by the January, 2010 meeting.

There are three important dates that should be on your calendar. The first one

is Sunday, December 6th, our Annual Awards Dinner at the Machine Shed. If you did forget, but still want to come, please let me know and you will have to bring the money to the dinner. There are presently 26 people coming, and I hope to add a few more during this week.

The second date is December 12 and 13, the ARRL 10 Meter Contest. The club has a friendly competition based on your results of the 10-meter contest. The entry form is included in this Hamtrix. When the contest is completed, send your entry form for our contest to Chuck, WB9PUB. 10 Meters can be an interesting band because of the sunspot cycles. It always seems to be open during this contest, and sometimes it is has been a real surprise. Hope you all have fun during the contest.

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Don't forget -

Annual Awards Dinner

5:00 PM - Sunday, December 6 - Machine Shed

2010 SWAPFEST

JANUARY 9, 2010

By Phil Gural, W9NAW, Swapfest Chairman

It's hard to believe that we are talking about an upcoming swapfest again. The Club's major fund raiser is little over a month away!! This would be a good time to mark your new 2010 calendar for the WARAC 38th Annual Midwinter Swapfest scheduled for January 9, 2010.

Preparations are going along fine. The usual organizations for security, catering and license testing are aware of the date. We are starting to receive table reservations and will soon be sending the sellers their table information.

Speaking about reservations, we have received inquiries for a few large table set-ups. With Tom, K9BTQ's help, we have made some changes to accommodate these sellers. Without getting excited, we hope this is a good indication that table sales will be brisk and may even cause an early sell-out. As in the past, the South and East Halls will be the major selling areas. However, if need be, we have plans to allow some selling in the

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From the Minutes...

By Lynn Tamblyn, K9KR
Secretary

**Minutes of the General Meeting
November 10, 2009**

The meeting was called to order at 7:09 PM by President Howard Smith.

Visitors – Brian Cieslak, K9WIS, Jerry Reidel, K9FI, Cheri Reidel, KA9WOC, and four representatives from the Thomas More Community Robotics Club (TMCRC), two mentors and two students. WARAC members introduced themselves to the visitors.

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

Announcements

Club Dinner – Howard mentioned the upcoming annual Club Awards Dinner, scheduled for December 6 at the Machine Shed Restaurant, in Pewaukee. The program is to be presented by Jim Maletta of North Star Energy Consulting, who will speak on Home Performance with the Energy Star Program.

Annual Dues – Howard told the membership that now that we are in the 2010 club year, the 2010 dues are due.

Ten Meter Contest – Chuck Craven again reminded the membership of the upcoming 10 Meter contest, to happen on the second weekend of December, i.e. the 12th and 13th. See the article and entry form in the November Hamtrix.

Swapfest – Chairman Phil Gural mentioned that he did not have tickets with him, as they were being printed. He suggested that the membership try and sell advance tickets. Phil should have tickets available soon.

Program –Robotics Demo. The FRC # 1714 team began their presentation with background on their group. The TMCRC is made up of students from several local high schools, and mentors from industry. They are in their 5th year. Their mission is to give young people exposure to and an appreciation for the study of science, technology, engineering, and math in a motivating and relevant way to build knowledge, self-confidence, leadership, and

life skills through participation in the FIRST robotics programs. FIRST robotics programs group consists of some 1200 to 1500 groups throughout the world, at the high school level. There are other FIRST groups in elementary and middle schools. Aside from their many activities, including designing and building working robots, TMCRC takes part in regional and national competitions. For our demo, the four gentlemen brought along one of their robots, that was at several of these competitions. They went thru the specifics of what was needed as part of those competitions, i.e. what the robot had to do, which in the case of the robot they brought to our demo, was to compete in a game – shoot balls thru hoops. In the process of those specifics, they went thru the 6 weeks to design, build, test and ship their robot to the competition site, including several videos of some of the competition. They talked of their successes and failures. Lastly, they demonstrated their robot to the membership. A question and answer session followed. Their website www.morerobotics.org is available for those interested.

The meeting was adjourned at 8:25 PM, followed by refreshments and eyeball QSO's.

Respectfully submitted,
Lynn Tamblyn, K9KR, Secretary

**Minutes of the Board Meeting
November 24, 2009**

The meeting was called to order at 7:08 PM. by Chairman Howard Smith.

Board members present were: Charles Craven, Chuck Dellis, Frank Humpal, Tom Macon, Howard Smith, and Lynn Tamblyn. Guest was Ron Gorski.

Board Chairman – Howard Smith was nominated and elected as 2010 WARAC Board of Directors Chairman.

Wisconsin QSO Party – Chairman Lynn Tamblyn reported to the Board on the 2010 WIQP.

Annual Awards Dinner – the Board was apprised of the status.

Repeater – after discussion regarding the sale of some repeater equipment to four possible parties, the Board decided they would seek formal bids from those interested,

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WARAC Officers and Board			Hamtrix – Editor & Publisher
President	J. Howard Smith, WA9AXQ	414.425-5626	Submit newsletter material to: Tom Macon, K9BTQ 3547 S. 95 St Milwaukee, WI 53228 414 543-3878 tmacon@wi.rr.com
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Treasurer	Chuck Craven, WB9PUB	262.642-7628	
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Director (2010)	George Dunco, AA9SR	262.782-6325	
Director (1 year)	Chuck Dellis, W9WLX	414.543-1134	
Board Chairperson	J. Howard Smith, WA9AXQ	414.425-5626	

AN OVERVIEW OF WSPR

by Chuck Dellis, W9WLX

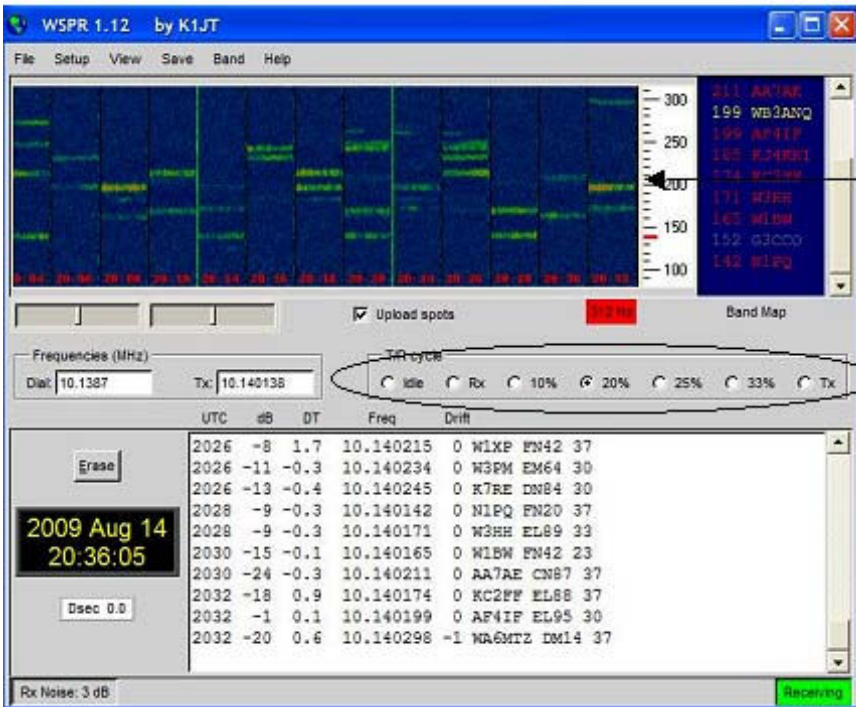
WSPR (pronounced *whisper*) is Weak Signal Propagation Reporter. It is a unique digital sound card mode because it does not support QSO's. WSPR was developed by Joe Taylor, K1JT, and is part of a suite of weak signal communication software, a cousin to WSJT used in EME and meteor scatter modes. WSPR is designed for sending and receiving low-power (QRP/QRPp) signals to test propagation.

WSPR modulation is continuous phase 4-FSK with a 1.46 Hz tone separation occupying about a 6 Hz bandwidth. The data transmitted is highly structured, consisting of call sign, 4 character locator, and power level in dBm. For example, W9WLX EN52 37. Forward error correction is employed and minimum S/N for successful decoding is around -28 dB on a 2500 Hz reference bandwidth. The protocol is very robust, regularly decoding barely distinguishable signals from noise.

Most amateur stations that are set up for digital sound card modes will accommodate the WSPR program with little or no hardware modifications. The only additional requirement is an Internet connection for the PC interfaced to the transceiver. WSPR software is downloaded from K1JT's website at

<http://www.physics.princeton.edu/pulsar/K1JT/wspr.html> and is easily installed. The convention is to set your transceiver to USB and use the standard VFO dial frequencies selected from the user interface on the Band pull-down menu. Don't forget to configure the software for your station!

WSPR will begin a transmit or receive sequence at the beginning of each UTC even minute. The operator selects an average percent of cycles (two minute intervals) to transmit and the program decides whether to transmit or receive during any given two-



- Rcv'd spot waterfall
- 2 min rcv sequences
- Vert. line—2 min. TX sequence

% cycle TX selection

minute interval. The transmit/receive pattern is randomized in order to prevent multiple WSPR stations being in a synchronous transmit cycle. At the end of each receive sequence, the waterfall is updated, the signals are decoded, and the spots are uploaded to the database.

Ham Happenings Around the area

Ozaukee Radio Club
Wed, December 9
7:30PM
Grafton Senior Center
1665 7th. Ave.
Grafton

CQ3TUE Lunch
Tues. December 15
11:15AM
Old Country Buffet
16750 W Bluemound Rd

Wisconsin Amateur Radio Club
No meeting in December

Milwaukee Radio Amateur Club (MRAC)
No meeting in December

South Milwaukee Amateur Radio Club
Wed. January 6, 2010
7:00PM
Legion Post 434
9327 S Shepard Ave
Oak Creek

Amateur Radio Testing
Saturday, January 9
9:00AM
WARAC Swapfest
AMF Lanes
901 Northview Rd
Waukesha, WI 53188

NOTE

Please do not contact meeting places for information.

Don't forget — 2010

Dues are Due

See our new Treasurer

Chuck Craven, WB9PUB
W2292 Beulah Hgts Rd
East Troy, WI 53120

WARAC David Knaus Memorial Scholarship

Available to licensed Amateurs who are Wisconsin residents pursuing an Associate, Bachelor's or Graduate degree in any course of study. The application deadline is May 1, 2010.

Visit the [FAR website](#) for additional information and application forms.

Swapfest Tickets

Tickets for advance sale will be available at the Dec 8 meeting.

Help promote our 'fest by selling advance tickets!

WARAC 2-Meter Net

Since we no longer have a repeater, our off-meeting night net has moved to 147.42 simplex. Please make a note of it!

- **7:00 PM**
- **1st, 3rd and 5th Tuesdays**
- **147.42 simplex**

Thanks!

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



Chuck Dellis, W9WLX

Phil Gural, W9NAW



Write an Article
This means
You!
Please??

Scuttlebutt...

- Eddie Smith, W9DYO, is having health problems but is home and can have visitors. Give him a call or stop in!
- The mother of Greg Hudziak, N9OEH, recently passed away. Our thoughts and prayers are with you, Greg.
- Dave Engelmann, WB9GZP, has a new Butternut vertical. We need a report on how it's working, Dave.

Do you have news that isn't listed here? It won't be here if ye editor doesn't know about it - call or email Tom, K9BTQ!

Upcoming Meeting Programs

December 8

Swapfest 2010 Planning

by Phil, W9NAW

and

Video: Getting Started in Contesting

CQ Magazine

January 12

Aviation Electronic Systems

by Frank Humpal, KA9FZR

Program suggestions?

Let us know - Contact a Board member!

Repeater System for Sale

Complete two-meter repeater system set up for 145.17/144.57. Will be sold as a complete system. Please forward your bid by mail to WARAC, P O Box 1072, Milwaukee, WI 53201 before January 18, 2010. The high bidder will be notified shortly thereafter.

- Antenna:
Sinclair model 229, 6db gain
- Duplexer:
TX RX Systems VariNotch (TM), Model 28-37-02, 144-174 MHz, Serial No. 1949
- Controller:
S-COM Industries -Model 7K, Version 2.03B firmware
Has speech board and telephone interface unit
Includes instruction manual
- Power Supply:
Astron Corp. Model RS-35A, 13.8 VDC @ 35 Amps
- Radios:
GE Communications Delta transmitter and receiver, mounted back-to-back on a plywood board suitable for mounting in a 19" rack
- Cables to connect the radios, controller and power supply.

WSPR

(Continued from page 3)

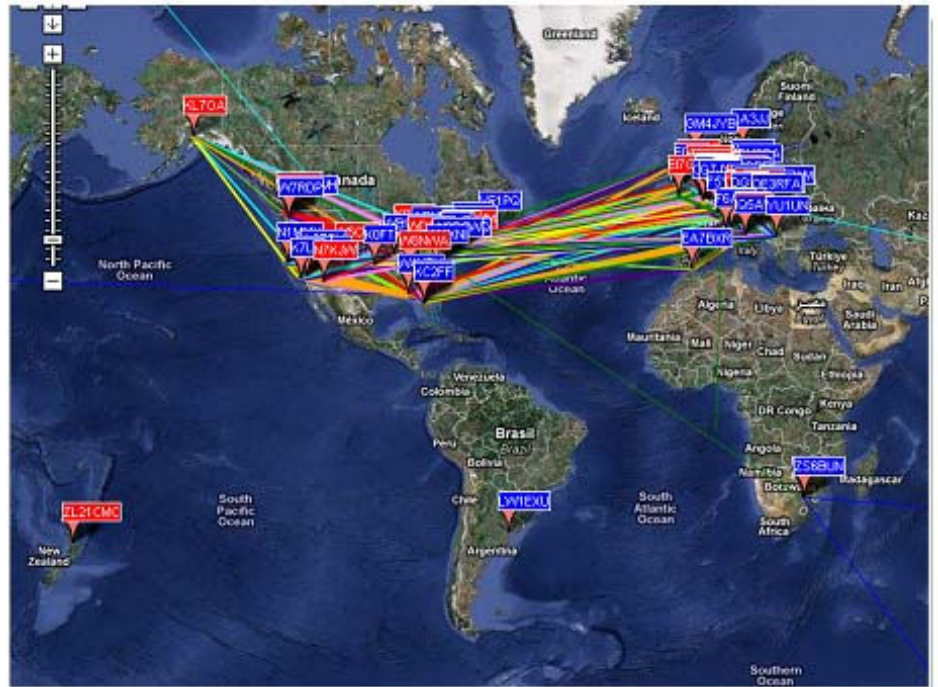
The upload database is the central repository of station reports. It is readily accessible on the public Internet at <http://wsprnet.org/>. The WSPR Net website has six main areas:

Activity: A list of stations being heard and/or reporting by band. Typically most activity is on 30 meters; however special activities are run each Wednesday from 0000-2359 UTC. Daytime and nighttime bands are paired to maximize opportunities.

Map: A map demonstrating WSPR propagation. A zoom option is available to better see specific areas of interest and parameters may be set to limit results to a specific band, call sign, and time period.

Database: A list of WSPR activity being reported. Database query parameters may be set to limit results to a specific band, transmitting station, reporting station, etc.

Stats: Graphical and tabular display of WSPR spot activity is available under this option.



Map example above – Database example below

Timestamp	Call	MHz	SNR	Drift	Grid	Pwr	Reporter	RGrid	km	az
2009-08-16 01:44	DL0TFK	10.140210	+3	0	JN48xj	5	EI7GL	IO51tu	1358	293
2009-08-16 01:44	DH8SA	10.140169	-25	-1	JO63bt	1	EI7GL	IO51tu	1389	269
2009-08-16 01:44	K1JT	10.140249	-20	0	FN20qi	5	NN6RF	CM87uw	4069	282
2009-08-16 01:44	N1MMY	10.140159	0	0	CM87uw	5	NN6RF	CM87uw	5	0
2009-08-16 01:44	DL6NL	7.040075	-10	0	JO50cb	0.05	G3JKV	IO91uf	751	284
2009-08-16 01:44	K1JT	10.140243	-18	0	FN20qi	5	K7LG	DM04se	3898	274
2009-08-16 01:44	W1BW	10.140162	-23	0	FN42hl	0.2	K7LG	DM04se	4154	273
2009-08-16 01:44	N1MMY	10.140154	-17	0	CM87uw	5	K7LG	DM04se	537	139
2009-08-16 01:44	K1JT	10.140227	-18	0	FN20qi	5	IQ5AE	JN54kb	6721	55
2009-08-16 01:44	DL0TFK	10.140185	-19	0	JN48xj	5	IQ5AE	JN54kb	487	171
2009-08-16 01:44	DH8SA	10.140144	-22	0	JO63bt	1	IQ5AE	JN54kb	1088	185

Forum: An Internet forum for registered WSPR users to exchange WSPR related experiences and information.

Downloads: Monthly .csv files of the WSPR database are available for download.

There are two important details to remember when setting up WSPR:

First, timing is of the utmost importance. The computer clock needs to be accurate to within ± 1 second. If the PC clock slips, a 3rd party program may be needed or perhaps a registry tweak to initiate clock synchronization more often. WSPR signals in the waterfall that fail to decode may likely be a timing problem.

Second, the WSPR software program does not read band or frequency settings from the transceiver. It is important to pay careful attention to the dial frequency and TX frequency parameters. These values are input manually; the dial frequency must match the transceiver's frequency using USB and the TX frequency must be within the expected 200 Hz passband. If the parameters are erroneous, incorrect data may be reported and/or the transmission may fail (no audio FSK).

(Continued on page 6)

WSPR*(Continued from page 5)*

WSPR can be fascinating, demonstrating just how well weak signals propagate. On March 23, 2009, from 0052 to 0446 UTC, DP1POL and I were reporting each other's WSPR spots on 40 meters. DP1POL was a German research station in Antarctica. My 5-watt signal was being spotted in Antarctica and DP1POL's 50 watt signal was

being spotted in Milwaukee, WI. All this was possible with weak signals originating 14,110 km apart, being copied and decoded at the bottom of a solar cycle, and with CW and RTTY QRM in the passband.

So if you want to put your station to the test, give WSPR a try and evaluate its weak signal propagation.

2010 Swapfest*(Continued from page 1)*

North Hall.

Again, we want to resist any selling in the North Hall and use this room for socializing. The changes we have made have been well received and provide a place for our visitors to relax, doing some rag chewing, have a bite to eat and meet the local ARRL League Officials or representatives from other local radio clubs.

How about selling admission tickets? One of the easiest ways for the club to increase its net profit is to sell advance tickets. Club members are always meeting with other ham friends who may welcome the opportunity to save a buck on a ticket. Phil, W9NAW, and John, K9IAC, have packets of tickets for you. Please help.

Do you want to sell something? There are a couple of ways you can do this. If you want to sell equipment you need to bring it to John, K9IAC, in the South Hall who has a table for that purpose. Otherwise, along the

east wall in the East Hall there are several tables for electronic parts/components selling being coordinated by Louie, W9GSV. In any case, it is a good idea to provide a write-up sheet providing your name, call, selling price and details. Louie will always take donations!

How can you help at this event? We need every WARAC member to be available and willing to help with the many duties that are necessary for this event to be a success. A sign-up sheet will be available at the Awards Dinner and at the December General Meeting. If you have some friends that want to help, by all means bring them along, too. We are encouraging members to arrive by 5:30 AM. Please wear your WARAC hat (or one will be provided at the event) and, if available, bring your HT tuned to simplex frequency of 147.42 MHz. All volunteers will be given a door prize ticket and coffee/donuts will be provided as well as a lunch ticket.

With everyone's help and effort we will make this event happen and live up to its reputation as one of the best swapfests in the Midwest.

2009 West Allis Radio Amateur Club 10 Meter Contest**Summary Sheet for WARAC-sponsored portion of contest**

December 12 Saturday 0000Z to December 13 Sunday 2400Z

Rules: See the ARRL General Rules and Rules for HF contests.

Operator's Name: _____ Call Used _____

Entry Category: CW only: _____ Phone only: _____ CW and Phone: _____ (Check one category)

Power level: QRP (5w or less) _____ Low power (5w to 150w) _____ High power (150w and up) _____

Scoring

CW QSO's _____ x 2 = _____ **CW Points**

Phone QSO's _____ x 1 = _____ **Phone Points**

CW Points + Phone Points = _____ Contact Points

Contact Points _____ x Power Multiplier _____ = _____ Total QSO points

Bonus: No. of Club Members worked _____ x 5 = _____ Club Member points

Total QSO points + Club Member points = Final Score: _____

Send this summary sheet plus a copy of your log and dupsheet before Jan-14-2010 to:

Chuck Craven, WB9PUB
W2292 Beulah Heights Road
East Troy, WI 53120



December 7 - Lynn Tamblyn, K9KR
 December 7 - Chuck Craven, WB9PUB
 December 10 - Les Peterson, W9YCV
 December 14 - Mike Wagner, N9ESC



www.warac.org

*Wedding
 Anniversaries*

[None to report this month]

Minutes

(Continued from page 2)

to make sure all parties interested would be treated the same.

Audit Of Club Books – Finalizing 2007 is close. 2008 and 2009 will begin once 2007 is finalized.

Programs – Discussion was held about programs. The December program will consist of “snippets” from our contesting CD, to help prepare members for the upcoming December Ten Meter Contest, since the club has an internal competition for the 10M test. The January program will be about ILS Systems, as used for airport runway landings, to be presented by Frank Humpal, KA9FZR. For February, Ron Gorski will do a program on the K5D Expedition to Desecheo Island (KP5). In March Chuck, WB9PUB, will talk about antenna analyzers.

Jacket – Lynn informed the Board that he needed to know what he needed to do. He knows the color has to be blue. However, he is not sure if the Board wishes that club members be given only one choice of a jacket style – OR – whether members can select their own style. The Board would like to have samples at a future meeting, although it was still unclear as to “one style” or “any style.”

Scholarship – Howard mentioned he is in contact with FAR, who does the administrative work for the selection of our annual scholarship winner. He has asked for spe-

cifics on how they do the selection. The Board then discussed setting stricter limits of candidates, such as making sure they are a ham, trying to only earn either an Associate or Bachelors degree, are a full time student and their age being 27 or under. The Board will discuss this further when Howard is provided further information on the selection process from FAR.

Swapfest - Tom Macon, speaking for Chairman Phil Gural, mentioned that Phil has received some commercial inquires for our January 9, 2010 Swapfest.

Treasurer Report – Treasurer Chuck Craven asked the Board if they wished to receive reports on the status of the Treasury. After discussion, the Board indicated they wished to have quarterly reports presented.

Donation Receipt – the Board discussed the present format of receipts for substantial donations. With the changes in tax rules about 501(c)(3) status, and new IRS reporting requirements, the Board asked that Treasurer Craven create a form that details what the substantial donation was, and would include a copy of the 501(c)(3) form provided to the donor. Both should become a matter of club records. The 501(c)(3) form would need to be filled in with the correct amount of the donation.

The meeting was adjourned at 10:12 PM.

Respectfully submitted,
 Lynn Tamblyn, K9KR, Secretary

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President's Shack

(Continued from page 1)

The last date is January 9th, when our 38th Annual Midwinter Swapfest is held. Even though this is still a month away, the table requests are coming in, and Phil has indicated that there have been several inquiries for a large group of tables. This is certainly encouraging considering that the economy has been down, and the unemployment has been up. As you all know, this is the one event that provides the funds for both the scholarship program and the operating expenses for the year. We have been very fortunate to continue to have a good turnout for our Swapfest, which is the largest in the Milwaukee area. We are successful because of all of your help with the

Swapfest. This is our one event that needs 100% membership participation, and we continue to have almost everybody there to help. And that is what makes this work so well. So, let me extend my thanks now, and I will look forward to seeing everybody on Saturday, January 9th, about 6:00am.

The program for the upcoming meeting will have two parts. First, Phil, W9NAW, will talk about the Swapfest details. Second, we will watch selected excerpts from a CQ Magazine DVD on contesting tips. That will be timely, considering the 10 meter contest will be the upcoming weekend. And, WIQP is not that far away either.

See you at the meeting.
 Howard Smith, WA9AXQ

.....

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



WEST ALLIS RADIO AMATEUR CLUB, INC.

PO Box 1072
Milwaukee, WI 53201
W9FK
<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 7:00 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.