



The ORC News -

Official publication of the Ozaukee Radio Club, Inc. Mail all contributions to the editor, Tom Ruhlmann, W9IPR, 465 Beechwood Dr., Cedarburg WI 53012 (phone 262 377-6945). Permission to reprint articles published in any issue is granted provided the author and the Ozaukee Radio Club Newsletter are credited.



ORC Repeaters on 146.97, 224.18 and 443.750 MHz -

Callsign W9CQO

Web site: www.ozaukeeradioclub.org

Volume XXVIII

March, 2009

Number 3

From the President

De Bill Howe II (KA9WRL)

Our Amateur Radio club is one of the best in Wisconsin, or at least that's what I'm hearing at the many Hamfests and other radio-related activities that I attend. Why is that?

I think one of the reasons is involvement. We have many members who actually contribute to the club's welfare by volunteering to help in many ways, whether it's by heading up a committee, being involved in a committee, assisting other hams by "Elmering", being responsible for raising funds for the club on EBay with donated equipment, taking on the added responsibility of leadership as an officer in the club, producing a Newsletter every month, running an auction, donating equipment for the auctions, and the list goes on!

All clubs have members with talents that could be shared. Some of them have had leadership responsibilities in their job; others were experts in manufacturing or have been on the creative end of designing or developing a product.

Amateur Radio clubs provide many benefits. Why don't their members give back to their clubs? Let me steal from President Kennedy ... Ask not what your radio club can do for you, ask what you can do for your radio club!

We have an excellent and extremely talented membership. I'm always amazed at every meeting with the personal contributions that each member gives, through their ideas and involvement with the club's meetings and activities. Let's keep it up. I think the ORC IS the best club in Wisconsin (and maybe, the Midwest)!

I Just Lost a Good Friend

By Nels Harvey, WA9JOB

I lost a good friend a few days ago. **Dave Knaus, N9QA**, is now SK. Dave came into my life back in the early 70's, when I became active on VHF, and met so many new friends. Dave had a great influence on my years as an Amateur Radio operator. After knowing him for a while, he invited me to a meeting. After some of Dave's encouragement, I agreed to be the new Wisconsin Frequency Coordinator!

It turned out that Dave was the secretary of the organization, and as a result, Dave and I traveled to the various meetings in Wisconsin. Dave and I also attended several meetings in Kansas City, and Sioux Falls, SD, meeting with adjacent states coordinators.

Frequency coordination needed calculations to help determine if a repeater could be placed in a location. I needed to upgrade, and purchased an XT computer. I had no idea how to use it, and Dave came over and set me up with a list of strange commands to be used. He helped me grow into the world of MSDOS!

Of course it didn't take long for the meetings to be moved to the Dayton Hamvention! Dave and I traveled to Dayton. It was my first, but Dave's second trip there. For several years, we made the trip together, and I can tell you stories of the problems getting hotels there, and dodging raindrops in the Flea market!

Dave liked to promote Amateur Radio where he could. He served as Webmaster for W.A.R. and Badger State Smoke Signals, and held Officer positions in the West Allis Radio Amateur Radio Club, as well as Repeater Vice-President in the Ozaukee Radio Club. Dave encouraged the ORC to begin the Scholarship program simi-

lar to the West Allis club. He had a way to get things done!

Dave caught a virus in the early nineties that severely damaged his heart! He was then placed on a transplant list and carried a special pager. Dave and Dan Bolander (WB9TYT) were visiting Field Day sites one summer, and the pager went off! Dan drove Dave from Fond du Lac, where they were visiting a site, to Madison, where he received the heart of someone who had died.

Dave went to Dayton with me a couple more times, and continued to enjoy the Wisconsin Coordination meetings, but the anti-rejection meds slowed him and took their toll on his entire body, but especially on his kidneys. He also became increasingly sensitive to infections, due to the medications, and had to be careful where he went in order to stay healthy.

It was sad to see a friend who I had shared so many long auto trips, meetings, Flea markets, situations and laughs, go down that slippery slope. No longer will I enjoy his boyish enthusiasm for new radios and things like packet radio and computers! He won't be there with me at the Waffle House in Dayton! He won't get one up over Sandy at the Saturday breakfast gatherings! He no longer will stop over just to visit Joyce and me!

I lost a good friend a few days ago!

Contesting

De Bob Truscott (W9LO)

See the UPCOMING EVENTS later in this issue for several important contests.

WIQP UPDATE. You may recall that I outlined a proposal to form a VHF/UHF group of mobile stations to operate during the Wisconsin QSO Party, coming up on March 15, in the last newsletter. At that time the intention was to assemble a team of 13 mobiles, and move them as a caravan through a number of counties, stopping only long enough to get the required number (12 per station) of contacts to qualify for the 500 point county bonus. Since that time the number of stations required has been reduced to 7 per team, thanks to a suggestion offered by W9GA. Ken pointed out that we could meet the bonus

requirements by operating on 2M plus 1 higher band. So that will be our goal, to form as many 2-band 7 station caravans as we can. It may be 2, or 3, or only 1, but it will be worth the effort, because we could probably make 25,000+ points per team. And the best part of all this is that folks who don't normally operate in the WIQP will generate these points. This could well be the shot in the arm that will allow us to recapture the club championship plaque. So how about it, people, how many teams can we form? Contact team captain N9UNR, Dave, at davidbarrow@wi.rr.com 262-375-2667, or me at my new address w9lo47@charter.net 262-629-9685.

See you all at the Post Everything Party on March 14.

Project of the Month

By Stan Kaplan, WB9RQR

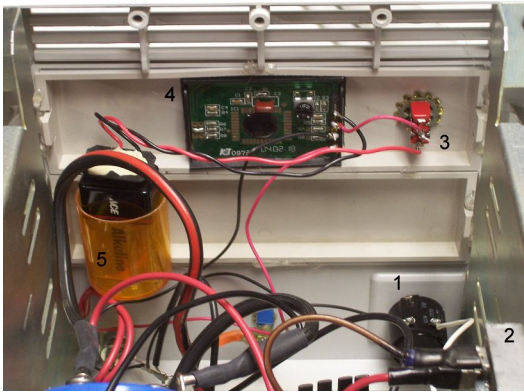
Tom (W9IPR) is always bugging us (actually a good thing) to show-and-tell with regard to new projects. I recently completed one during the December/January doldrums, and share it here with you.

As you know, I have lots of 12-volt power supplies, made from old computer power supplies, and frequently auction extras at our meetings. I don't need more 12-volt supplies! On the other hand, what about other voltages? It is not uncommon to need 5 or 6 or 9 or 15 volts for one project or another on the bench. So I decided to build a variable supply. Not a big one – just 1.5 amps or so, out of stuff in my junk box.

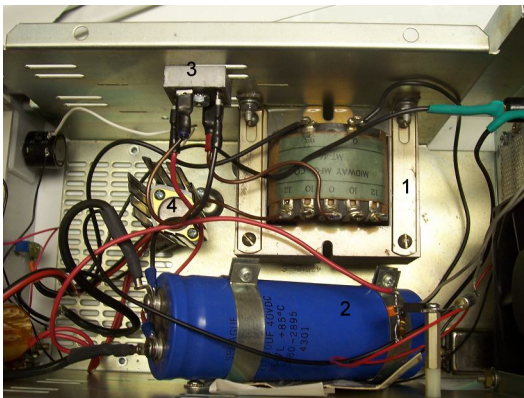
The picture below shows the front panel of the completed project (which I showed at the ORC meeting on 11Feb). Power switch, output terminals – all standard stuff. I used a LM317 three terminal voltage regulator, so the knob at the left is a ten-turn pot that will dial anything from 1.27 to 15.5 volts. Somewhat unusual is the digital readout, shown reading 9.02 VDC. It is an inexpensive (\$12) unit that requires its own 9-volt supply. Inside the case is a 9-volt battery for that purpose, and the front panel sports an on/off switch for the battery voltage.



Below is a view of the back of the front panel.



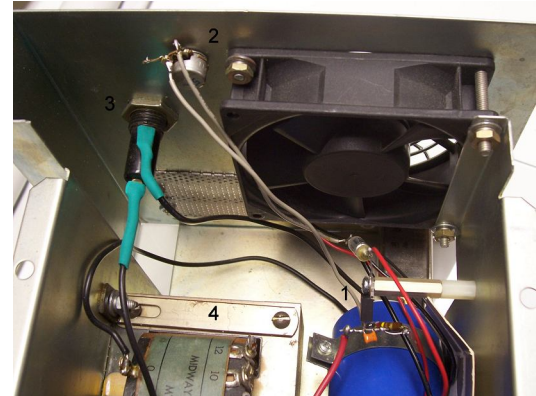
At 1 is the variable resistor for adjusting voltage. The bridge rectifier, bolted to the side panel, is at 2. The on/off switch for the battery is at 3, while the digital meter is at 4. An old pill bottle (thanks, Dave!) has been cut down to hold the battery at 5.



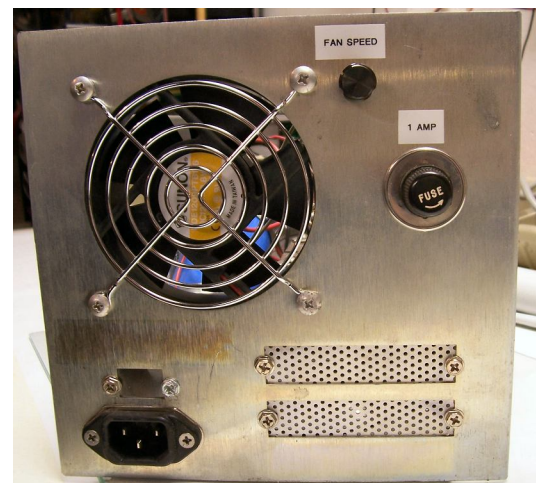
Above is a view looking down into the case. The junk box transformer is at 1, a heavy job with dual 10- and 12-volt taps, only one of which is used. The 12-volt tap supplies 17 volts

after rectification and filtering by the capacitor. The big, blue 21,000-microfarad, 40-volt filter capacitor is at 2, and the bridge rectifier is at 3. The LM317 regulator is at 4, buried in the heart of a finned heat sink. The electronics are not tied to the case – even the ground floats above the chassis.

The next view is of the back panel, inside the case. The filter capacitor is at 1, just in front of the fan. At 2 is another pot that controls the speed of the fan. I used another variable output 3-terminal regulator to do that, speeding up or slowing down the fan by altering the voltage. Another view of the transformer is at 4.



Finally, the back panel is shown next.



The fan, fan speed knob, fuse and the filtered AC input connector are all seen here.

Simple, but it works! That 10-turn pot on the front panel really makes fine voltage adjustments a snap. I am glad I opted for it, rather than a standard 1-turn model.

Anybody need some volts? I have plenty to share!

The Scrap Squalo

De Tom Ruhlmann (W9IPR)

I did manage to get a 6-meter beam in the air but then I realized that while it is quite directional there might be signals on the backside of the beam that I would not hear and would therefore miss a potential contact. This created the need for an omni-directional antenna for initial receiving and then if the received signal was weak, resorting to use of the beam in a known direction to complete the QSO. One good solution would be to use a 6-meter squalo but as you are aware, they cost upwards of \$60 and that deserves additional consideration.

Actually it all started in an RV park in Orlando where we were staying last February. I was walking the dog and there it was – right before my eyes in a pile of scrap aluminum – a discarded lawn lounge chair made of 1" tubular aluminum.



Would you believe that someone discarded this perfectly good potential antenna?

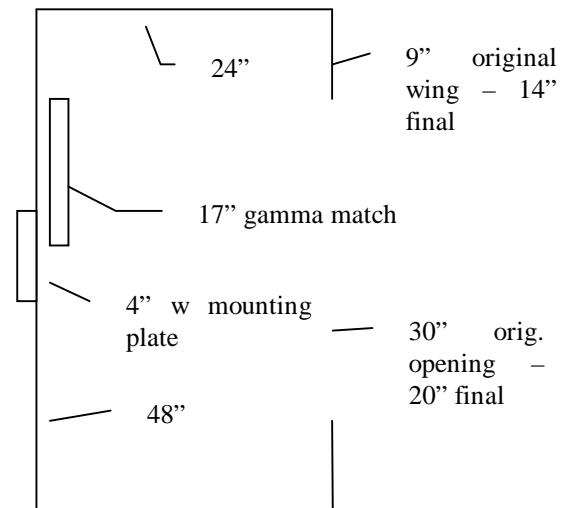
Once the fabric was stripped away and a few rivets were drilled out I had several pieces of pre-bent aluminum tubing with which to make a 6-meter "squalo" antenna.

A "squalo" is really a square halo made from tubing of approximately $\frac{1}{2}$ wavelength long bent into an approximate square. I had decided to

make it not as a dipole open and fed at the center but grounded to the mast at the center point (where the voltage is zero) and fed with a gamma match. There is an article in the January 2002 QST on a "lawn chair squalo" but it is of small dimension (94") and uses capacity plates at the open section for tuning. They were limited in size by use of a lawn chair where as I was using a lawn lounge chair of larger dimensions. I wanted to have greater bandwidth using a full size squalo. The actual dimensions would be affected by the diameter of the tubing and final shape of the "loop".

I wanted to trim to resonance at 50.5 MHz so I formed the original at 49 MHz length of 114" ($(468/49) \times 12$) expecting to trim it to approximately 112". Initially I created a rectangle approximately like figure 1. The 48" width was determined by the width of the lounge chair.

The pieces of tubing were spliced together by slicing out a $\frac{1}{4}$ " slot along a 3" length of scrap tubing allowing it to be squeezed to a smaller diameter and inserted into the two pieces of tubing to be joined. Each piece was then screwed to the splice.



My original dimension was a total length of 114" and I fabricated a gamma match of $\frac{3}{8}$ " tubing 17" long with a 14" piece of RG-8 coax (less the shield) inserted inside the tubing as the feed capacitor. Initially I attempted to tune the antenna length and gamma match using my MFJ "259" antenna analyzer while in the garage. Big

mistake due to the metal doors etc. and I ended up cutting the antenna shorter due to erratic readings.

Then I moved the setup outside and started to retune the length and gamma match. It made a significant difference and I had to add 6" to each end of the antenna making a total length of 124". It was interesting to note that by adjusting the length and the gamma match I was able to get an SWR of 1.2:1 or better from 50.0 to 51.3 MHz and less than 2.0:1 up to 53 MHz. I was pleased with that and mounted it on the tower.



Temporary setup in the back yard for squalo tuning. Duct tape is supporting the squalo in the horizontal position.

A gamma match is really an interesting feed technique. The capacity between the feed wire inserted inside the gamma tube and the tube cancels the inductive reactance of the antenna and the shorting bar between the tube and antenna is adjusted to find the 50-ohm impedance point. Closer to the center is lower impedance while moving the shorting bar further out is to a higher impedance area.



The Lawn Lounge Chair Squalo is shown hard mounted to the tower for horizontal polarization (SSB) with the opening toward the East.

You will note the squalo is mounted in the horizontal plane to provide horizontal polarization for optimum SSB operations but it could also have been mounted in the vertical plane for vertical polarization and optimum FM operations.

Also note that I tied the "wings" back with rope to support any ice loading and am feeding the gamma match with a 6-turn coax balun. The coax balun shield coil impedance "chokes" any RF returning down the outside of the coax.

Does this squalo work? Yes, and just as expected, it appears to be omni-directional as opposed to my beam and it has very low SWR.

You can get the details of building "squalo's" and gamma matches from the referenced QST article and by doing a search on the Internet. There really is a lot of information available. I really enjoyed the project, learned a lot and spent only my time. But then, I'm retired.

For Sale (Scholarship Fund)

Moseley Classic 33 Beam Antenna	\$125
Rohn 30 aluminum tower	\$75
Kenwood TS-440S transceiver w/matching tuner, speaker and power supply	\$500
Heathkit IT-27 transistor/diode tester	\$15
MFJ-249 SWR Analyzer 1.8-170mHz	\$75
Contact Ed AA9W etrade@milwpc.com	

Upcoming Events

March

7th – 8th **ARRL International Phone DX Contest**, rules at www.arrl.org/contests

11th **ORC meeting**

14th **Post Everything Party** with entertainment courtesy of Gary Clausing.

15th **North American RTTY Sprint**, rules at www.ncjweb.com

15th **Hamfest** – Jefferson, WI

15th **Wisconsin QSO Party**, rules at www.warac.org

26th **OZARES meeting**

28th – 29th **CQ World Wide DX SSB Contest**, rules at www.cqwx.com

April

3rd – 4th **AES Superfest** A “don’t miss” event. Word has it that as many as 40+ clubs will be present, as well as the usual vendors and outstanding presenters.

8th **ORC meeting**

15th **OZARES annual WX training**; 6:30pm. This is also a good chance for ORC members interested in severe WX to brush up on their skills. Important personally, as well as for public service.

18th **Madison Swapfest** at Stoughton

May

1st **Opportunity Day** at Parkview School

2nd **ORC Swapfest** at Circle B
10-10 CW QSO Party

3rd **Hamfest**, DeKalb, IL

16th **CQ National Fox Hunting Weekend**

13th **ORC meeting**

15th – 17th **Dayton Hamvention**

16th **National Fox Hunt Weekend**

28th **OZARES meeting**

30th – **31st CQ WW CW DX Contest**

Audit Committee Report

The audit committee met on February 25, 2009. The committee consisted of: Kent Christiansen, N9WH; Ed Rate, AA9W; Mike Yuhas AB9ON; and Vic Shier, KB9UKE. The review covered the activities from January 1, 2008 to December 31, 2008.

The club books and records were found to be well organized and in good order. The club currently has four bank accounts; a regular checking account, a money market/checking account, and two certificates of deposit. The balance of each of the accounts was verified to be the balance as reported in the December 31, 2008 treasurers report with one exception. Each account was verified to be registered in the name of the Ozaukee Radio Club.

The December treasurers report contained a discrepancy of \$4.18 that was corrected with the January treasurers report. The \$4.18 discrepancy was due to interest that was credited by the bank in December but was not reported by the bank until January.

The committee also selected certain transactions and traced those transactions to the bank statements. Some transactions were selected on a random basis and others were selected because they were significant in size or importance. All transactions appeared to be in good order.

The committee would like to make the following comments:

1. The signature cards for some of the accounts are not current and should be updated. The names of past club officers should be replaced with current club officers.
2. A discussion concerning potential improvements in control of the funds took place. The committee did not reach a consensus and does not have a recommendation. However, the risk level at this time is low because the Club Trustee currently receives duplicate financial

records on a monthly basis. The issues were as follows:

- Should the accounts require 2 signatures if the withdrawal exceeds a given dollar amount?
- Should the use of the debit card be discontinued?
- Should the authorized signatories change as the club officers change or should the Club Trustee be the second signatory, which may provide more consistency?

The committee wishes to thank Nels Harvey, WA9JOB, for his service as treasurer and to commend him for keeping a close eye on the club coffers. He recently discovered that the electric company had been inappropriately charging the club a sales tax. He has stopped the overcharge and the club will soon be receiving a refund of nearly \$100.00.

Submitted by: Vic Shier, KB9UKE, Committee Chairperson, 26Feb09

For Sale

Drake 2B Receiver with Manual, in good shape and it works great! It does NOT have the 2BQ Multiplier included, but doesn't need it for operation. Any 4-ohm speaker will work fine. There's a slight crack in the Meter face that has no effect on operation, and a bit of the lettering under the Passband Tuning knob is scratched. Asking \$90. Here's a picture of the receiver:



Contact Bill Howe, KA9WRL.

The



Column

By Stan Kaplan (WB9RQR), Column Editor

Our newest member is Brooks Hagenow, KC9IOL. Brooks holds a General ticket. He recently moved to Ozaukee County from She-

boygan, and is transferring from their ARES/RACES unit to ours.

The meeting of 26Feb started even before anyone arrived at the meeting site! EC Mike (AB9ON) organized a mobile practice emergency net for those on the road to the meeting, and most attendees were checked in and ready for emergency assignments before they actually arrived! At the meeting, discussions covered a variety of topics: 1. Training ideas for future meetings and nets. 2. Training for OZARES members that wish to become certified drivers for the MCT. 3. Hospital communications – both at SMO and the new Aurora unit being built now in the county.

Note that there will be no meeting in April other than our annual WX training, and that will be on Wed, 15 Apr, at 6:30 pm at the Justice Center. This is a great chance also for ORC members to brush up on WX skills, for personal safety as well as public service.

NET CONTROL SCHEDULE: OZARES nets are held each Thursday at 8:00 p.m., except on meeting nights (4th Thursdays). Both a net script and check-in list can be obtained on the OZARES web site, www.ozares.org. If you are scheduled for NCO duty and cannot make it, it is your responsibility to find a substitute. Check the complete schedule on the web site for possible hams to trade dates with, and keep the net manager (WB9RQR) informed of confirmed trades. Guests are welcome after the OZARES check-ins are complete, most especially ORC members! By the way, if you see a difference between the schedule on the website and this column, this column will always be correct, since it reflects last minute changes and substitutions. Such changes and substitutions to the website version will be in bold print here if known at the time of printing.

05 Mar	N9PBY
12 Mar	W9KHH
19 Mar	KB9RHZ
26 Mar	Meeting
02 Apr	KA9PZG
09 Apr	W9IPR

15 Apr *Annual WX Meeting (**Wed** 6:30 p.m.); no other meeting this month
 16 Apr **N9WH**
 23 Apr **K9GCF**
 30 Apr **AA9GT**
 07 May **WI9GC**
 14 May WB9RQR
 21 May N9SFG
 28 May Meeting

*Annual weather spotting training; see this link for details:

<http://www.crh.noaa.gov/mkx/?n=spotter-schedule>

Minutes– Feb. 11th, 2008

De Chuck Curran (WA9POU)

President Bill Howe KA9WRL opened the meeting at 7:31 PM. All attendee's introduced themselves at the start of the meeting. Everyone responded to Bill's question: "What do you collect?"

Announcements: Bob Truscott announced the upcoming Wisconsin QSO party and pointed out the increased interest in the VHF portion of the contest. It will be held on March 15, 2009 from 1:00 PM to 8:00 PM. A meeting of the people interested in the VHF aspect was arranged for immediately after the regular meeting. Bill Howe showed a newly completed regenerative receiver (below).



Stan, WB9RQR, showed a 1.2-15.5 VDC variable voltage DC supply recently finished. It used a nice digital readout. Stan got two bids for the DC supply during his demonstration!

Program: A nicely prepared and executed program was given on the QCWA activities and trips being held in Wisconsin. WA9JMO, Larry McCalvy (photo below) visited our club to make the presentation.



Lots of information was discussed on the branches in our area and pending trips, along with great pictures from past QCWA cruises that have had large turnouts. The new office is now in Framingham, MA. There is a scheduled cruise on October 24-31, 2009 in the Caribbean. The two local Chapters of the QCWA are Chapter 55 and Chapter 162

Fellowship Break: Dave N9UNR sold the 50/50 tickets (shown below).



Auction: Stan WB9RQR and Jon KB9RHZ conducted the auction. There was quite a bit of items available for auction. The volume required some innovative high speed auctioning techniques that cleared the material with ease.

Acceptance of Minutes: A motion was made by Ed Rate, AA9W to accept the meeting min-

utes as published in the newsletter. Dave N9UNR seconded the motion.

Treasurer's Report: Nels Harvey, WA9JOB, (seen below) presented the Treasurer's Report.



There was a motion to approve the report by Ken W9GA; seconded by Dave, N9UNR.

Repeater Report: John Schrader W9NRG gave a repeater report with a description of the current status of the equipment.

Post Everything Party: Tom Nawrot, AA9XK, provided an update on the planned Post Everything Party. It is scheduled for March 14, 2009 at the Rose-Harms Post in Grafton. The cash bar will open at 5:30 PM and the dinner will be served at 7:00 PM. Bill Howe offered to bring in an acquaintance to provide music during the evening. It was suggested we could give the person a free meal since his performance will be free. A motion was made and seconded to approve the suggestion.

Spring Circle B Swapfest: The pending May 2nd Swapfest and also the September 12th Swapfest were brought up and discussed by Tom, AA9XK. Some discussion was needed due to the September date being on the same day as the Grayslake Swapfest in Illinois. That point will be discussed further and reviewed at next month's meeting.

Financial Audit Committee: Vic Shier KB9UKE (shown below) informed the group of a pending financial audit of the club



records that will be performed. Additional members to help out were requested and Mike Yuhas AB9ON, Ed Rate AA9W and Ken Boston W9GA all volunteered to help.

Old Business: None

New Business: None

Nels Harvey announced the passing of Dave Knaus, and suggested that we consider naming the scholarship fund after Dave. Bill Howe will have the recommendation discussed at the next board meeting.

Stan Kaplan WB9RQR moved for adjournment, and there were about 12 seconds, one being Dave, N9UNR

Attendance was: Gary Sharbuno WI9M, John Gilmore KB9RHZ, Stan Kaplan WB9RQR, Todd Fast N9DRY, Mark Fielkow KB9PXE, Dave Barrow N9UNR, Ed Rate AA9W, Kent Christiansen N9WH, Larry McCalvy WA9JMO, Nels Harvey WA9JOB, Ted Spicuzza KB9PQZ, George Steber WB9LVI, Vic Shier KB9UKE, John Schrader W9NRG, Jim Albrinck K9QLP, Ron Yokes, W9BCK, Bob Truscott W9LO, Ed Frac AA9WW, Peter Schmidt KB9URH, Terry Kohler KA9RFM, Bob Frank N9NRK, Doug Burghardt N9KG, Paul Purgett KC9NHD, Roger Zaun W9UVV, Patrick Sullivan KC9LRK, Ken Boston W9GA, Tom Murtaugh W9VBQ, Florian Sturmberg KA9DFZ, Nancy Stecker KC9FZK, Mark Potash KC9GST, Gary Sutcliffe W9XT, Ray Totzke W9KHH, Mike Greenfield N9JIY, Chuck Curran W9POU Bill Howe KA9WRL, John Thielen WA9KNY, Mark Tellier AB9CD, Tom Nawrot AA9XK

AGENDA

March 11, 2009

1. Call to order – Bill Howe (KA9WRL)
2. Introductions.
3. Announcements, Bragging Rights, Show & Tell, Upcoming events, Etc.,
4. Program:
5. Fellowship Break
6. Auction.
7. Acceptance of Minutes as printed.
8. Treasurer's report – Nels (WA9JOB).
9. Repeater report – John (W9NRG)
10. Committee reports.
Post Everything Party –
Spring Swapfest -
11. OLD BUSINESS
12. NEW BUSINESS:
13. Adjournment to?

Return undeliverable copies to

The ORC Newsletter

465 Beechwood Drive
Cedarburg WI* 53012

First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, March 11th

7:30 PM