

The ORC Newsletter

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: http://www.qsl.net/orc/

Volume XXII October 2003 Number 10

The Prez Sez

By Vic Shier (KB9UKE)

The old Philco was playing beautiful music as we entered the Senior Center for the September meeting. Jim, KA4UPW, finished the restoration of this classic console radio and gave the final presentation on how he did it. Not only was it working, it was playing music that Jim was broadcasting from his own miniature AM radio station. We enjoyed watching the progress on the Philco, thanks Jim.

An important portion of the rest of the meeting related to our scholarship fund. Several years ago the club became a 501c(3) organization, an IRS recognized non-profit. Since that time the club has received generous tax-deductible donations. Most times we also have an auction at the club meeting with half of the proceeds going to Wisconsin ARES organizations and the other half going to the scholarship fund. The result has been a significant increase in the balance of the fund.

When people wish to donate to the club they contact Ed, AA9W. He arranges for the preparation, transportation, and storage of the equipment. He then estimates the fair market value of the donations and sells it, first offering it to club members and then to the public at-large.

Due to suggestions at the last meeting, we are making some changes to the process.

Many members and officers use email for notification purposes. This is the least expensive and most efficient method of written communication. Any member who wishes to receive general announcements from club members should provide their email address to Nels, WA9JOB. There options here are to receive either the email messages and/or the notification that the newsletter is available on the web.

When Ed has equipment for sale he will announce it via this email system called a remailer. Club members will have time to review the list of equipment and place bids before it is released. If more than one person is interested in the same item, it will then be auctioned to the highest bidder.

Any member wishing to be notified of the items by a method other than the remailer, will have to make arrangements with Ed but please consider the amount of time and effort your request may require. He already spends a great deal of time and effort for the club and making his job harder is not a good option.

Each year the ORC awards a scholarship to a young amateur radio operator to help with his schooling. This is one of the most honorable activities that our club is involved in, evidence of the true spirit of ham radio operators.

73's and remember...It's a hobby!

NOV. SWEEPSTAKES HIGHLIGHT OF THE FALL SEASON!

De Bob Truscott (W9LO)

Nov. 1-3 (CW), and Nov. 15-17 (Phone).

I remember my first SS experience. It was in 1951 in a 3rd floor apartment in Oak Park, IL, with a 40 meter dipole about 5 feet above the rooftop. The rig was a 20-watt home brew job, and the receiver was a National HRO-7, my pride and joy at the time. The log shows that I worked a total of 75 stations, all on 40 meters. My hourly rate was about 9 contacts. I didn't enter the results—don't remember why, but if I had, I would have been # 31 in Illinois out of a total of 42 entries. Not much of an effort, but I was pleased

with it because I had a lot of fun and learned a few things about operating. Haven't missed a Nov. SS since that time. Hope to work a bunch of club members in the contest this year. (Maybe even on phone.)

Back in those days SS was held on two successive weekends, with a maximum of 40 hours of operating time, divided between phone & CW, as individuals saw fit, rather than a phone weekend and a CW weekend as we have today. The transceiver had not been invented, and neither had SSB, so as you might guess, contacts were a bit harder to come by. Most CW rigs that were not crystal controlled chirped, and you could often recognize your buddies by the characteristics of their individual chirpy signals. The good old days—primitive, but fun.

Results of the 2003 ARRL DX contest are in, but I can't tell you what they are because ARRL keeps telling me "The server is busy". I must be doing something wrong—I liked it better when they printed the results in the mag.

Coming up in Oct.:

Oct. 11-12 10-10 Day Sprint–Phone, CW, Digital—Rules in Aug. QST, page 91.

Oct 11 FISTS Fall Sprint-CW—Rules in Feb. QST, page 103.

Oct. 25-26 CQ Worldwide DX Contest—Phone—Rules in Oct. QST, page100.

Nov. 1-3 ARRL November Sweep-stakes–CW–Rules in Oct. QST, page 107.

Have fun contesting.

Are you an Appliance Operator?

De: Gregg Lengling, W9DHI

Okay what is an appliance operator? An appliance operator is a Ham who goes and buys his rigs and just starts using them. REAL HAMS build their gear. I've been home brewing and kit building for over 40 years (yes I'm only 50 and that means I started at age 10). Well now the Ozaukee Radio Club is going to offer classes to help you get your feet wet. Learn how to build kits, learn how the radio really works.

As soon as we have enough members signed up myself and Dr. Stan Kaplan, WB9RQR, are going

to run the classes. For the first project we picked the TenTec SWL receiver kit.

It is receiver that covers: 49 meter SWL band, 40 meter Ham Band, 12-15 MHz SWL and the 20 meter ham band. This radio is a Superhet design kit, relatively simple and inexpensive. The group cost is \$25.80 per kit plus shipping expenses. The radio requires 9 to 12 volts DC, a set of headphones, and a random length wire for antenna.



The Ten-Tec "Superhet" SWL Receiver

Future classes will offer those that built the kit, to home-brew a 12-volt DC power supply and an audio amplifier and speaker so you don't need the headphones. The only requirement for the class other than purchasing the kit (we are purchasing the kits in bulk to get the discount), is a "temperature controlled soldering station". You could just use a 25-watt soldering pencil, but temp. controlled ones make it harder to destroy any components. If we have enough people that don't have the solder stations, we can also do a group purchase on those.

Contact me either at the meeting, via e-mail (w9dhi@ameritech.net), or by landline at 262-376-0711.

Looking forward to making this a Real Radio Club. Who knows maybe you can be like myself and a couple other members and be able to say the HF station you operate came from your own hands and building expertise.

Tips, Tails & Tools

Not sure if those trees are far enough apart to hang a new antenna? Try using a measuring

wheel to get an accurate idea of their separation.



Tom (W9IPR), trying to plot a path through the woods for a 540' horizontal loop antenna using an inexpensive measuring wheel.

They are available from Harbor Fright for about \$9 and I purchased mine for \$7 from the "traveling tool show" that comes to the Circle B each winter. It sure saves a lot of grief for just a few dollars.

2003/4 ORC PC COURSE

by Stan Kaplan, WB9RQR skaplan@mcw.edu

The course will be held on varying Wednesday nights, usually spaced two weeks apart, and always arranged so that there is no conflict with the ORC meetings. The course is limited to six students, and all must be current ORC members. To enroll, you must request it and I must confirm that you are accepted. The first session is scheduled for 19Nov03.

I do not charge for the course, but there are costs associated with it. First and most important, there is a **required** text that you must have in hand by the first meeting.

Mueller, Scott <u>Upgrading and Repairing PCs</u>, 15th edition. Que Corporation, Indianapolis.

The book retails for \$59.99, but you can get it delivered to your door from amazon.com for \$45.98. It is the best selling book in its class and will be in all the local bookshops, as well. An-

other cost is floppy disks. Bring a package of at least 10 new, formatted disks to the first meeting. You will receive about that many disks, containing software, during the course. A third cost is tools, and a list of those you should acquire will be provided at the first session.

This will be both a lecture and laboratory course. The goal is to introduce you to the physiology of computers (how the various parts interact so that the whole machine works), as well as the anatomy and surgery (hands-on practice at tearing down and building up). The ultimate aim is to have you come away from the course with the confidence to attempt troubleshooting, repairs and upgrading yourself. We will also do some virology, specifically, virus epidemiology (study of the causes and control of diseases). You will have the opportunity to infect a machine, and then cure the infection.

There will be homework. Sometimes it will be ancillary readings that I will provide, or specific assignments in the text. If no specific assignment is given, you are always expected, for example, to read about floppy drives if that is the topic for the following meeting. At other times, you may be assigned to take a piece of hardware home and reduce it to its smallest components. Taking things apart is one of the best ways to learn how things work!

For Sale, Trade or ?

A complete station: Kenwood TS520, microphone, headset, SWR-1 meter, straight key, speaker, 80 – 10 Mtr. Trap dipole etc. - \$450 OBO.

Contact Don Belstner (W9VSC) @ 377-0426

Upcoming Events

Oct. 8 – ORC meeting
Oct. 17, 18 & 19 – JOTA - To volunteer, contact
Bill Howel (KA9WRL) at wghowe@netzero.net

Club Static

PEORIA, Ill., Sept. 16 -- ROHN Industries, Inc., a provider of infrastructure equipment to the telecommunications industry, announced today that the Company and five of its direct and indirect subsidiaries have filed voluntary petitions for Chapter 11 relief in the United States Bankruptcy Court for the Southern District of Indiana.

Just Another Shack

De Ed Rate, AA9W, and Nels Harvey, WA9JOB

Sus Musashi, KB9OC, has been a member of the Ozaukee Radio Club for many many years. He is being forced to give up his Amateur Radio career because his hearing loss has taken the enjoyment from this great hobby. Sus has given all of his radio equipment to the Club with the provision that the proceeds of it's sale be shared with the Scholarship fund and himself.

There is a list of items being distributed on the remailer, and many things will be at the October ORC meeting, for auction.

Many of us have known Sus, and his lovely wife, Grace, from their attendance at the P.E.P. Parties, and Club cornroasts. For many years, they helped with the party planning, and details such as name tags and table decorations.

Sus has taken many pictures over many years at the P.E.P. parties. Some of these will be at the next meeting for all of us to look at.



Sus, KB9OC, at the "Mic" where he worked over 300 countries

Sus worked as a watch repairman. Working from his home, he had a regular routine where he would pick up watches to be repaired and cleaned early in the week, clean them, and distribute them back to the jewelers by the end of the week. This involved completely disassembling each watch to the last screw, cleaning the parts in a solvent, then assembling and lubricating them, one by one. I think I remember him telling me he used seventeen different lubricants on the watches! Sus limited his work to only fifty watches each week! His low band radio was present in his workshop and used extensively as he worked.

If you have ever had a chance to visit Sus's shack, you might have noticed a very special display tucked off on one wall. The framed display contains a lot of history that most members might not be aware of. In World War II, Sus was a soldier in the 442d Regimental Combat Team at the front line in southern France. The 442d consisted of many soldiers of Japanese heritage who volunteered into the US Army.



Our Section Manager, Don Machelski (W9IXG) and Dan volunteered to remove the "beams" from Sus's tower – interesting sight

The display on Sus's wall includes the medals awarded to Sus for his service. Among the many medals are the Silver Star, the Bronze Star, the Purple Heart, a Field Commission from Corporal to Lieutenant, and many other medals and commendations. Sus doesn't talk a lot about those days, but if you draw him out, he has a lot of fascinating tales to tell.

Sus's main interest has been DX for many years and he has been on the DX Honor Roll with over 300 countries. His ham shack walls are covered with awards and citations. Now, because of his service connected hearing loss,

he has had to curtail his Ham activities. An active member of ORC for many years and a life member of other area clubs, Sus and Grace are well known in Milwaukee ham circles.

Sus and Grace are active campers with their trailer. After he sold the watch repair business and retired, they increased their involvement with a camper's group, and have toured with the group to many campgrounds over an extended area.

Thank you Sus, and Grace, for all the contributions from you two, to the ORC!

The Rock Mite, a \$27 Rig

De Gary Sutcliffe, W9XT

Over the last couple of years I have become interested in QRP. When I wanted to operate QRP, for the most part I would turn the power down on my FT-1000MP or fire up an old Heath HW-8 I put together in the 1970's.

That is only part of the action in the QRP world. A big part of the fun is the amount of QRP home brewing and the large number of QRP kits available. Late last year I started hearing about a little QRP transceiver kit known as the Rock Mite. It is designed by Dave Benson, K1SWL, and available through his company, Small Wonder Labs. Www.smallwonderlabs.com

The Rock Mite is a _ watt crystal controlled transceiver. It has a built in CW keyer. Models for 40M and 20M are available. The price is only \$27, and that includes shipping! I was intrigued that a rig costing under \$30 could make contacts. Just how good was it? I finally ordered one in early February.

There is a big backlog for these, and it took almost a month to arrive. I ordered the 40M version, but the 20M kit showed up with instructions for the 40M version. I would have accepted the 20M version, but there are some capacitors and inductors that are different in the two versions, and I wouldn't have known how to put it together. I sent Dave an email, and I got the right parts in a couple of weeks.

A bit of the fire inside me to get this on the air died while waiting for the kit, and it sat around for several weeks. Then the April 2003 *QST* showed up. Guess what was on the cover? Right, the Rock Mite! There was an article inside describing how the unit worked. Readers interested in technical details of the unit are referred to the *QST* article. It is certainly worth reading.

Obviously a lot of effort went into the design of this unit. There are a lot of clever but subtle ideas in the design.

The kit is not too difficult to assemble with reasonable soldering skills and the ability to identify parts. It took me about an hour and a half, but I have a lot of experience putting electronics together. Most hams probably take 2-3 hours.

The circuit board is a nice double-sided board with solder mask on both sides. I think he could have done a couple of things better on the layout. The holes for the pads where you connect the wires to the outside are a bit small. There is a lack of holes to ground. I ended up scraping off the soldermask at a couple of places to connect wires to ground. These are only minor inconveniences.

The kit only comes with the circuit board and parts that mount to it. Connectors and case are not included. You can buy those separately, but the cost for the case and connectors are more that the rest of the rig! Unfortunately that is all too common for some low cost electronic projects. I have a well-stocked junk box, so coming up with the connectors was not a problem. I wanted to fire it up quickly and did not bother with a box. The unit will eventually be housed in an Altoids® box once I finish eating the mints, true to QRP form.

The unit requires 12V. I have a bunch of wall wart type transformers. I tried that first, but got a lot of AC hum. That is not surprising since those beasts usually have poor filtering and regulation. I decided the best thing was to use a battery so I charged up a 12V-gel cell battery.

That took care of the hum. I hooked it up to an antenna and I heard signals! Lots of them! This is a direct conversion (DC) receiver. With that type, you get twice as many signals as you would hear with a superhet. It takes a while to get used to that, and to know what signals are on your frequency.

I listened for a few minutes. Soon I heard a loud signal starting to call CQ. I turned the 40M meter towards him because with only a half watt, I would need all the help I could get, and gave him a call. He came back! A 559 from Long Island, New York! We had a quick QSO before the QRM covered me up, but I had the first contact in the

log.

I listened for a while longer, while I read the information about operating this thing. The manual mentions that the unit is susceptible to overloading by strong AM stations. I could hear a bit of that, but it was not really a problem. When I tried other antennas, like my 160-meter dipole, I would get WISN wiping out the 40-meter signals. Using a resonant antenna is certainly a good idea. A tuner would probably be even better.

In a couple of weeks I made about 30 contacts in over 20 states. I have worked all call districts except W6. I even fired it up in a QRP contest, and took first place in Wisconsin. I learned two interesting things that contest. First, it is difficult to hold a CQ frequency with only 400 mw. Second, with a single frequency crystal controlled rig, it does not take long to tune the band.

I'm not ready to trade in my FT-1000MP yet, but I have to say that I have had an awful lot of fun for a \$27 radio!

The Remailer

There was a lot of discussion at the September ORC meeting regarding distribution of information, especially regarding availability of donated items. The purpose of this Newsletter is to inform all of our Club Members of items of interest. However, with the advent of e-mail, the ability to inform the membership of items of interest has been enhanced greatly.

The Ozaukee Radio Club maintains an e-mail remailer service for all who wish to be included in this electronic notification service. If you are not presently enrolled, and wish to receive these messages, please contact Jeff, KB9QQE, or Nels, WA9JOB. Jeff is the Administrator of the list. This list is open to ORC members, as well as other interested parties.

There is a great deal of confusion regarding this re-mailer. First, anyone on the list can place a message there. Simply send one e-mail to orc@mailman.qth.net, and everyone on the list will receive it. Your e-mail address will not be revealed, and the re-mailer provider protects your e-mail address from 'bots that harvest addresses from the net. You can use the re-mailer in confidence.

Items of timely interest can be posted on the remailer for all to read. This can include items for sale, wants, needs, help on how to do's, health-related things, such as someone who is ill, or other notifications. This communication form is fast, free, and extremely easy to use. Don't miss out on the pulse of what keeps the ORC running. If you aren't on the list, you are missing out!

73, Nels....

W9DXCC Convention

For the first time I attended the W9DXCC convention in Rolling Meadows, IL. It was September 20, same day as the Grayslake Hamfest, but with careful scheduling I was able to make both events. The W9DXCC convention is like a continuos travelogue – the story of one Dxpedition after another – South Africa (Lesotho and Swaziland), above the Arctic Circle @ Somerset Island, Roatan Island in the Caribbean etc.. While there you are in the company of folks who have worked 300+ countries and done some really extraordinary things.

There was also a great presentation on the search for Amelia Earharts Airplane – they are getting closer and closer.



The story of the search for Amelia Earharts Airplane held the group spellbound at the W9DXCC Convention



Attending the W9DXCC convention were our own Gary Sutcliffe (W9XT) and Mike Garcia (KD9AW), NoII Amidzich (W9RN) and Dave Schmocker (KJ9I)

Grays Lake Hamfest

The "Grayslake" September Hamfest has long been a regional favorite with commercial and amateur vendors of everything from sophisticated new HT's and HF rigs to 50 year old SX-28's and WWII BC610's and components.

However, I would estimate this year's attendance at about half of previous years. I would assume the low attendance resulted from the late rescheduling from the originally published Sept 27 and 28 weekend to Sept. 20 and 21. This revised date conflicted with the Hamfest in Peoria as well as the W9DXCC convention in nearby Rolling Meadows.

. I went to the Hamfest at 6:30AM and did get a couple of treasures. I found a Coleman 1KW generator and 2 operating manuals for which I had searched for these past 2 years.

While I was somewhat disappointed with the Grayslake event I am sure it will be back on track next year. See you there.



Long shadows are cast at 7 AM at the Grayslake Fairgrounds but the early bird does get the worm.

Minutes - Sept. 10, 2003

De Carol Szudrowitz, KC9CBC

Meeting called to order at 7:35 by President Vic Shier KB9UKE

Mohammed KC9CPC was introduced as our newest ham member.

Announcements:

Bill KA9WRL was present to tell more about Jamboree on the Air (JOTA) and invited anyone interested in helping to sign up with Vic KB9UKE. Bill's club has been sponsoring this since 1987. It is on the 3rd weekend in October (Oct. 17, 18 & 19). Scouts talk to Scouts around the world. They will be setting up at least 3 stations in the Horicon Marsh area on Thursday and Friday. Friday Noon to Saturday midnight they will be transmitting. The Scout Council advertises it and participation is up. Scouts can work on requirements for a radio badge. Cost is minimal and the food is great.

Program:

Jim KA4UPW brought back the broken down old time radio fully restored and working. All enjoyed the music and tips for restoring the cabinet and the radio. One trick he shared was to "paint" both sides (the veneer and the radio) with Elmer's Glue. Let them dry and put them together. Use a steam iron. The steam penetrates the veneer and the glue is set tight. Because of the many coats of shellac, Jim feels that moisture will not allow the veneer to separate.

Auction and then Break Business Meeting:

Minutes from the last meeting were approved as printed in the newsletter.

Motions from a board meeting held the week before were presented to the club for a vote by the President Vic KB9UKE.

- 1. Vote carried unanimously for Nels WA9JOB to continue discussions with We energies for placement of an antenna/equipment on their new tower in Port Washington.
- 2. Vote carried unanimously to send \$50.00 to the QSL.net.
- 3. Motion approved for sending \$50.00 to ARRL to help fight using BPL. Leon K9GCF explained how harmonics would be a problem for radio reception. There are leaks all over even with closed coaxial cable that cable companies use now.

Treasurer's Report accepted as printed on handouts.

Repeater Report:

Nels, WA9JOB, discussed the crackling that was heard on the repeater that remained after the new donated MIRAGE amplifier was tested. When he moved his hand over one of the feed lines, he concluded that it was a bad coax connection. The RG8X connector was loose. The outer shield was not making a good connection in the UG174 adapter. This was resoldered, fixing the noise (Use of a temporary RG58 cable lost 25% of power during the test.).

Nels is looking forward to further discussions with We energies to find out limitations and possibilities. It is an opportunity to get our foot in the door so to speak. He is looking at placing a cardioid antenna there with a 6db North and South 9db to the West. and -5db over the lake. We Energies may supply the feed lines. The idea of just placing a transmitter there and keeping the present main site for all the voting is being considered. There is a reluctance to place the 440 repeater there as their truck channels use 451 MHz. The elevation is about 100 feet lower than the antenna on Greg, W9DHI's tower was, and about 50 feet lower overall than the present site at the barn. Stan, WB9RQR, reminded us the 97 repeater is an emergency backup for OZARES 147.33 MHz. repeater. That may help in discussions.

The 220 is operating at the barn. Dick, K9CAN, wants the repeater to stay in the barn for easier access. General Communications is creating problems at the Germantown site. They want us to use the antenna or pay someone to take it down as well as paying their man to be there. Our alternative is to link a 220 receiver back to the main site 224.18 MHz. repeater, to justify the antenna use and utilize the receive capabilities there. The interface of the 220 and 2-meter repeaters is also planned for net operations. This will be done at the main site, and be automatic, rather than someone trying to do it acoustically from home.

OZARES Report:

I D cards are here and most have picked them up. Meeting is on Thursday regarding SMO operations.

Scholarship Report:

Ed AA9W reported that much of Sus, KB9OC's Donation has been spoken for. The agreement is that he receives half of the proceeds and the club gets the other half. A motion was made for **the club to purchase the aluminum tower for Field Days**. Dave N9UNR made the motion and Stan WB9RQR seconded it. The club voted yea.

A discussion commenced on how donations are made known to members and if they have first dibs on them for purchase. Ed said that he informs all by e-mail when donations are listed. Donations are listed on the re-mailer. It is also announced at meetings. Nels, WA9JOB, is one of the administrators of the re-mailer. He needs to know if you want to be on it. A suggestion was made to list it in the newsletter. Problem: newsletter is usually history when published. Conclusion: Ed AA9W and Vic KB9UKE will discuss how to get notice to all in a timely manner. Dave N9UNR noted with a show of hands that most members have e-mail.

Committee Reports Field Day:

Jim KA4UPW posted a chart at the meeting showing areas that he and Gary WI9M identified items for improvement for next year. A new tower was one. It will also be published in the newsletter. They ask that members review it. We want to keep improving.

Fish Day:

Cindy KA9PZG reported that 6 members helped and everything went well. Kathy Poule sent a letter of thanks with a \$150 donation, and a request that hams keep the 3rd Saturday of July open to help again next year. Cindy KA9PZG made a motion to donate this to the Scholarship Fund. A discussion began regarding the club's funds; therefore, Jon KB9RHZ made a motion to table the donation motion until next meeting when the treasurer is present to discuss funds. Greg W9DHI seconded the motion. Members voted yea.

New Business:

Radio Building Project:

Greg W9DHI found a Regenerative 4-Band SWL Receiver kit that is reasonable (approximately \$29.00). This is a good starting point for building as it covers 20 meter and 40 meter ham bands. Greg will provide the support and teach those who are interested.

Swap Fest:

Gene KB9VJP said the biggest money making event needs advertising. Flyers are available for the 2004 Swapfest. Grays Lake Swap Fest is September 20/21. If you plan to go, please take the flyers along. Remember to call for flyers for other events. Thank you!

News Letter:

Some had trouble downloading the letter. Suggestion: Text only copy. PDF compressed form. Give suggestion to the Editor, Tom, W9IPR.

New Ham Radio Classes:

Ed AA9W is stepping down from teaching the class. The question pool changes next year. We need a teacher to encourage new hams. Please consider it.

Repeater:

Nels could use help on the technical end of the repeater. Greg W9DHI volunteered. Help with the WEB Page would also be appreciated. Nels uses a basic HTML Program.

Attendance:

Leon K9GCF, Mark N0OKS, James KA4UPW, Dave N9UNR, Ed AA9W, Bill KA9WRL, Ron KC9DKQ, Jim K9QLP, Ron W9BCK, Gene KB9VJP, Kent N9WH, Ed AA9GT, Nels WA9JOB, Paul KB9WCC, Ray W9BUJ, Terry KA9RFM, Herb WA9UVK, Bob N9NRK, Jon KB9RHZ, Greg W9DHI, Jane KB9SYI, Cindy KA9PZG, Carol KC9CBC, Jim N9WIU, Ray W9KHH, Bob W9LO, Mark AB9CD, Roger W9UVV, Peter KB9URH, Bernie AA9CI, Stan WB9RQR, Don W9VSC, Sky N9XRU, Gay KB9OBR, Muhammad KC9CPC, Mike WJ9O.

AGENDA

Oct. 8th, 2003

- 1. Call to order Vic (KB9UKE)
- 2. Introductions.
- 3. Announcements, Upcoming events, Etc.,
- 4. Program:
- 5. Fellowship Break
- 6. Auction.

- 7. Acceptance of Minutes as printed.
- 8. Treasurer's report Tom (AA9XK).
- 9. Repeater report Nels (WA9JOB)
- 10. OZARES report Jon (KB9RHZ).
- 11. Committee reports.
- 12. OLD BUSINESS
- 13. NEW BUSINESS.
- 14. 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, Oct. 8th

7:30 PM