



# 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.



AMATEUR RADIO

ORC Repeaters on 146.97, 224.18 and 443.750 MHz -  
Callsign W9CQO Web site: [www.ozaukeeradioclub.org](http://www.ozaukeeradioclub.org)

Volume XXIV

March 2005

Number 3

## The Prez Sez

By Tom Ruhlmann (W9IPR)

I must say that my first meeting as President was indeed exciting and encouraging. We had a series of problems and they were all solved by other than me. First we were locked out of the meeting room so Ron called the Grafton police who made arrangements to have us let in – meeting on schedule. Then we had a PC projector, but no power cord. As the meeting progressed, Gregg got us another PC projector from Colders - but then the interface cables had the wrong connectors. At this point Mark went to his car and found a correct set of cables. Program on schedule. To me it's a sign of a great organization when problems are encountered, no one gets flustered and then the problems are resolved by willing individuals eager to make the show go on without a ripple. And that it did. Thanks to all involved.

The program as given by **Jerry (K9HXA)** and it was really excellent. Every thing I wanted to know about Transceiver to PC digital interface units. These are the electronic units which connect your radio to your computer and which allow you to run SSTV, PSK-31 and a host of other digital modes of operation. I especially appreciated his review of the available commercial interface units and the SSTV demonstration he provided with the help of **Terry Koller (KA9RFM)**. A really worthwhile program Thanks to Jerry and Terry.

I was especially encouraged by all the discussion generated during the Youth Committee report and suggestions of how to create and cultivate a youth group within the ORC. The future of the ORC lies in getting youth interested. This will be a real challenge for **Mike Yuhas (KC9GDV)** and his committee – Be sure to help them in their efforts.

The auction was about the largest I have seen in my years as an ORC member. Special thanks to **Mark Kachel (N9OKS)** who really cleaned out his shack and brought his “treasurers” to meeting for **Stan (WB9RQR)** to auction. The material auctioned was the length of the bowling table and a foot deep. The Scholarship fund and buyers benefited greatly – some more than others. Nice auction Stan – you moved every last item and nothing went to the dumpster.

I was also impressed with Naomi and Mark Potash of the Public Relations Committee. They got mention of our ORC group elections etc. in the Feb. 7<sup>th</sup> edition of the News Graphic. They have also gotten the interest of FOX news for possible coverage of field day. Nice job.

I sent the listing of committees and openings around for review and sign-up however, then it was lost somewhere in the shuffle. Therefore, if you signed up for a committee would you give one of the Board members a call to confirm it. I am asking Mike Yuhas to post the committee list on the Web site so you can review it at any time and decide how you can best participate.

As of the meeting I realized we have some jobs that need doing on meeting night. One of the important things that must be done is to arrange the chairs and tables, empty the trash, turn out the lights and make sure the doors are locked when we leave – you will be the last person to leave, will you do it? If so, give Leon or myself a call and confirm.

I must apologize for having missed the Post Everything Party – we went to Texas and missed the fun. This and field day have always been the two social high lights of the year for Pat and I.

Remember, it's a hobby so get involved, learn something and have fun.

73's

## Contesting

De Bob Truscott (W9LO)

### THE BIG ONE

Yep, it's the big one again. The Wisconsin QSO Party. March 13, 12:00 N to 7:00 PM, local time. Phone/CW, all bands 80 thru 2 meters (Except for the WARC bands). Work any station once on each band in each mode, and mobiles as often as they move to new counties.

This is a fun contest, and has been very popular with OZRAD for many years. I remember, perhaps 7 or 8 years ago, going out with WI9M in his van, along with several other guys. As I recall we had CW and SSB on the HF bands, and SSB on VHF simultaneously. Sorta like Field Day on wheels. The VHF station was at the front of the van, HF SSB in the middle, and CW directly over the wheels in the back. I shared the CW chores with Gary, and I have to say it was a real challenge to make ourselves understood----I'm sure we both came across as a couple of LIDS to the people who tried to copy us from their home stations. (Or maybe that's the way we always sound.) It's difficult to work a paddle when your backside is bouncing 3 or 4 inches off the seat. Until that time Gary never realized that his rear wheels were square. Oh yeah, I forgot to mention that the temperature was in the teens and that the warm air from the heater got down to about 20 degrees by the time it got to our position. Nels, on the other hand, was cozy warm at the VHF station in the front seat. No wonder he volunteered to drive. We had a great time that day, and scored very well. Try it sometime, you'll like it.

Coming up in March:

**Mar. 5** ARRL International DX Contest—Phone—Rules in Dec. QST, page 104.

**Mar. 13** Wisconsin QSO Party--Rules in March QST, page 92 or [www.warac.org](http://www.warac.org).

**Mar. 26** C Q WW WPX Contest—SSB----Rules in March QST, page 93 or [www.cqwp.com](http://www.cqwp.com).

Have fun contesting.  
Bob, W9LO

## Just Another Shack

De Steve Stevens (K9DXT)

Our victim this month is **Jim Hilins (KA4UPW)** who along with his family comes to us by way of Ft. Lauderdale, Fl. The K4 in Jim's license comes from getting his first ticket in Virginia in 1980. Jim is currently employed at General Electric Corporation.

Along the way Jim attended Georgia Tech where he became "A rambling wreck from Georgia Tech and a hell of an engineer" when he received his bachelors degree in electrical engineering. Since that time Jim has taken some post-graduate courses in electrical engineering and MBA classes. Jim feels that getting his General class license at an early age spurred him on to a career in electrical engineering.

Jim got into the hobby in the 1970's. He was big into CB and got tired of the trash. When a son of a neighbor (who was a ham) started Ham classes Jim jumped in also to get his license. Jim was a freshman in high school or in late middle school. He now holds an Extra Class License.

Jim enjoys making casual DX contacts on HF, Field Day contesting, and experimenting with antennas or helping others with any of the above. Jim doesn't remember his longest QSO but he received his RCC (Rag Chewers Club) award as a novice CW operator. Jim is among the lucky ones who worked the space shuttle Challenger. He was able to make his contact with a minimum amount of equipment that consisted of a 2 watt HT and a homebrew antenna. Others were using big dollar Doppler compensated rigs, beam antennas and tracking software (Commodore 64's). Jim encourages we "no code Techs" to give it a try and we might show the extra's a thing or two.

Jim's current equipment list consists of a mix of second hand and dumper diving (picked his HT out of the garbage). For HF he uses an iCom 756 and various homebrew stuff (been spending time around Nels). He has a homebrew ATV transmitter and all kinds of experimental stuff. Be aware at the Post Everything Party.

His other activities and interests include antique radio (tube type) collecting and restoration, Model T restoration, surfing and participating in his son's scouting activities.

## Upcoming Events

**Dave, N9QA**, reminds everyone to mark your calendars for the upcoming Wisconsin QSO Party from 1800 Zulu on March 13 to 0100 Z on March 14. Full contest rules, entry blank, etc. are available on the West Allis Radio Amateur Club Website, [www.warac.org](http://www.warac.org).

### March

- 2<sup>nd</sup> South Milwaukee Auction
- 5<sup>th</sup> ARRL International Phone DX Contest
- 9<sup>th</sup> **Membership Meeting**
- 20<sup>th</sup> Hamfest @ Fort Atkinson
- 13<sup>th</sup> & 14<sup>th</sup> Wisconsin QSO Party
- North American RTTY Sprint

### April

- 1-2<sup>nd</sup> **AES Superfest**
- 5<sup>th</sup> **Board Meeting**
- 13<sup>th</sup> **Membership**
- 16<sup>th</sup> Grayslake Swapfest
- 17<sup>th</sup> Madison Swapfest @ Stoughton
- Technician Class training class begins**

### May

- 7<sup>th</sup> **ORC Swapfest at Circle B**
- 11<sup>th</sup> **Membership Meeting**
- 20-22<sup>nd</sup> Dayton Hamvention

## Club Static

### Late Breakfast

It's never too late for breakfast and these are some of the usual attendees at the 8 AM "late breakfast" at the Family Restaurant – Bowling Alley in Grafton on Washington Avenue. Sleep in awhile and join them for some interesting discussions.



At the "late breakfast" this Saturday were Bill (AA9OS), Ted (N9LLT), John (W9FAD), Gerry (KB9IMH), Jim (K9QLP), Dave (N9QA), Bernie (AA9CI) and Sandy (W9BTN)

### Repeater Site

Work continued at the Grafton fire house as we completed the installation of the electrical system supplying this repeater site with generator backup in the event of emergencies. All that remains is installation of a remaining antenna.

Many of the members have been involved in this installation and it has been a learning experience for all.



Peter (KB9URH) Schmidt of Schmidt Electric is shown here measuring and cutting conduit in the completion of this repeater site – electrical hook-up.

## “Break Queen”



Julia Nawrott, our “Break” queen

Julia Nawrott (KB9WBQ) has been bringing the coffee, pot and treats for the break for these past 3 years. She is now working late on Wednesday’s and will no longer be able to do this. It would be best if two individuals rather than one performed these two tasks. If we are to have coffee, we need someone to assume that responsibility. If you can do it, call Julia and she will give you the “pot” and instructions. No “coffee chef, no coffee”.

If someone would like to assume responsibilities for the snacks, again contact Julia for instructions – “No snack chef, no snacks”.

Perhaps these jobs should be rotated – volunteer as committee chairman and do it as you see fit.

## RF Field Strength – How Indicated?

De Tom Ruhlmann, W9IPR

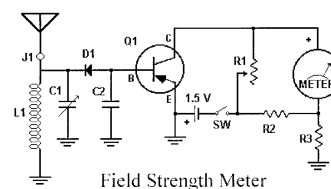
Typically a project is born of having some parts or test equipment that needs to be utilized as opposed to need. However, an interesting and economic project that has many uses is that of a Field Strength Meter.

It can be used to indicate the strength of an RF field radiated from an antenna during transmitter tune-up or testing. Depending on how it is designed and it’s sensitivity it can also be used to sniff out RF in the shack and to indicate the approximate frequency of a detected RF field.

My project started with having a grid dip meter and signal generator that needed to be used to calibrate something. There upon I decided to build a field strength meter and would use the grid dipper to wind the coils for a tuned circuit input and the signal generator to calibrate the tuning dial for frequency.

The schematic is pretty basic, just a few resistors, a diode, one transistor, one fixed and one variable capacitor plus coils and a meter plus a few switches and a battery of course. The schematic follows but can also be obtained at

[www.geocities.com/ResearchTriangle/Lab/1635/circuits/circ01.html](http://www.geocities.com/ResearchTriangle/Lab/1635/circuits/circ01.html)



Once the components were gathered I elected to use the case & meter from an old RCA VoltOhmist VTVM to house the project. While the case resulted in a good looking instrument, the hole locations and internal clearances dictated excessive distance between the variable capacitor and coils of the tuned input circuit and this limited the highest frequency that could be tuned. The frequency was further limited by the choice of a 100 mmf variable capacitor. While this allowed use on the 160 Mtr. band it limited the high frequency response to about 25 MHz.

The controls are from left to right: Band Switch, Sensitivity, Power Sw, BNC “Sniffer” connection and Frequency tuning dial. The Band switch also contains a broad band

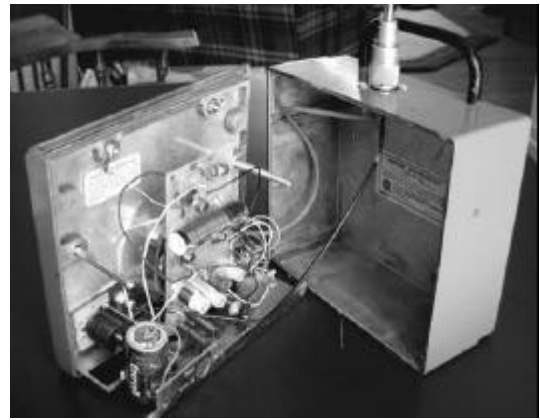
(BB) position that eliminates the tuned circuit so the instrument is not frequency sensitive.



The HF Field Strength Meter is shown here with the antenna connected at the PL259 connector on top of the case. A 2-turn “sniffer” coil on a 3’ piece of co-ax can be connected at the front panel BNC connector.

The meter face was modified to contain the calibration of the variable tuning capacitor dial in MHz. The calibration table was created in Excel and then printed onto photographic paper. This was then trimmed and secured to the original dial using an artists spray adhesive. Looks great.

What would I have done differently? If space allowed, I would like to have been able to use a two gang 50-50 mmf variable capacitor then I could have switched to the smaller capacity and tuned the higher frequencies as well.



As seen in this interior view a circuit board was mounted to the rear of the meter and supports the coils and electronic circuitry.

It is also advisable that when calibrating the frequency dial that the instrument be within the case in that the metal case will affect the resonate frequency of the tuned circuits. Also, use minimum coupling between the signal generator and FS Meter output when calibrating the instrument to increase accuracy and minimize the response of the circuit to harmonics.

Does it work? Yes. Was it fun? Yes, and it gave new purpose to some of my junk box parts.

## Minutes – Feb. 9th, 2005

De Nancy Stecker (KC9FZK)

The meeting was called to order at 7:35 by Tom W9IPR.

**Bragging Rights** – Vic KB9UKE announced that he repaired a 1947 Philco radio and proudly stated that this was the first time he completed an electronic restoration totally by himself.

--Naomi KC9GSS has received her General ticket.

--Ron W9BCK is a member of OOTC, the Old Old Timers Club. You must have had your first radio contact at least 50 years ago to become a member.

**Show and Tell -Tom W9IPR** brought his tuned circuit field strength meter built with very inexpensive parts.

Upcoming Events in March –South Milwaukee Auction, ARRL International Phone DX Contest, Hamfest@ Fort Atkinson, Wisconsin QSO Party, North American RTTY Sprint.

A chart was passed around with volunteers needed for the following committees: **newsletter, historian, repeater, youth programs, membership** and a training coordinator.

### **Business Meeting**

Board of Directors - It was announced that the Board had considered and voted to accept several changes in policies and procedures, as were printed in the February newsletter for the membership at large to view. These changes stand accepted as they were printed.

**Treasurers Report** –Accepted as printed in the handouts distributed at the meeting.

**Repeater Report** – Nels, WA9JOB is working on the radios for the future transmit site for the 146.97 repeater. He needs to find a two inch steel pipe, possibly 15 to 20 feet long, to support a Two Meter antenna at the Grafton Firehouse. This would be used to augment reception in the greater Grafton area after we lose our present repeater site. The 220 and 440 MHz. repeaters are working fine, but still get little use.

### **Committee Reports**

**Membership** – Paul, KD9FM plans to identify hams in Ozaukee County who may be potential members. He will send letters to them to see if they are interested in joining the Ozaukee Radio Club.

**Swapfest-Gene, KB9VJP** will be working on flyers to advertise the swapfest and will send letters in April to potential table sponsors..

**Post Everything Party- Julia, KB9WBQ** and **Tom, AA9XK** are seeking members who have not yet made reservations to attend the PEP on February 26, 2005.

**Youth- Mike, KC9GDV** is newly appointed to the committee. **Ron, W9BCK** would like to see more youngsters brought into the club. **Julia, KB9WBQ** suggested the radio-computer link might be of interest to youngsters.

**Web Site** –Mike, KC9GDV reported the new host site works flawlessly. He would like to put club history and other interesting items on the web site. Gregg, W9DHI is checking into re-mailing options that would not require additional fund expenditures.

**Public Relations** –Naomi, KC9GSS has contacted local newspapers to see if they would be interested in carrying articles on club activities. A photo of new officers and an article appeared in the February 7, 2005 News Graphic. She suggests putting radio related magazines, with Ozaukee Radio Club stickers affixed, in waiting rooms and other sites. An AES sign-up sheet was passed around.

**Awards Committee** –Vic, KB9UKE asked for nominations for the Ham of the Year and Turkey of the Year awards. He also announced the old, moth-eaten (real, stuffed) turkey is no longer in existence.

**Training- Tom, W9IPR** would like to offer another Technician training course. He has accumulated a Power Point presentation that can easily be used to present the course. He has plans to develop a General Class course, as well.

**Old Business** –There was no old business.

**New Business** –There was no new business.

Copies of the proposed budget for 2005 were on the tables for members to examine. Expenses

were projected to be about \$7,700 and income expected to be \$8,100.

**Ted, N9LLT** moved to adjourn the meeting, and **Gary, WI9M** seconded the motion. It was unanimously accepted, and the meeting was adjourned..

**Program –Jerry, K9HXA** presented a program on digital communications called “Everything You Always Wanted To Know About Digital Modes But Were Afraid To Ask”. He brought copies of an article from the November 2000 QST magazine that explained how simple to make and inexpensive a digital-mode interface can be. Jerry’s power point presentation was filled with information that proved the article to be correct. Rig Blasters and related equipment comes in a wide price range and new software is constantly on the market. We heard about common problems with digital transmitting and what to do to deal with them. Not only did we see photos of Jerry’s own rig, we saw an actual demonstration. Terry, KA9RFM brought his rig and used it to send pictures to Jerry’s computer and from there onto the screen. Be sure to talk to either if you would like to hear more about new ways to interface your radio and computer.

**Fellowship** –The president announced the need for someone to take over the job of setting up coffee and treats for the fellowship segment of the meetings. **Julia, KB9WBO** is unable to continue because of other commitments on Wednesday evenings.

**Auction –Stan, WB9RQR** auctioned donated items from several sources.

**Attendance – Jeff WB9PZD, Gary WI9M, Dave N9UNR, Ed AA9W, Nels WA9JOB, Kent N9WH, Muhammed KC9CPC, Bernie AA9CI, Jim N9WIU, Herb WA9UVK, Ben K9UZ, Wil KB9HHR, Mike KC9GDV, Ray W9KHH, Bob W9LO, Ron W9BCK, Gary W9XT, Mark N0OKS, Terry KA9RFM, Gerald K9HXA, Bob N9NRK, Mark KC9GST, Naomi KC9GSS, Nancy KC9FZK, Carol KC9CBC, Julia KB9WBQ, John KC9FJX, Mark AB9CD, Gene KB9VJP, Tom AA9XK, Ted N9LLT, Dan AA9QR, Ron KC9DKQ, Paul KB9WCC, Paul KD9FM, Gregg W9DHI**

## **AGENDA**

*March 9, 2005*

1. Call to order – Tom (W9IPR)
  2. Introductions.
  3. Announcements, Bragging Rights, Show and Tell  
- Upcoming events, Etc.,
  4. Program:
  5. Fellowship Break
  6. Auction.
  7. Acceptance of Minutes
  8. Treasurer's report – Tom (AA9XK).
  9. Repeater report – Nels (WA9JOB)
- 
10. OZARES report – Jon (KB9RHZ).
  11. Committee reports.
    - Membership
    - Swapfest
    - PEP
    - Youth Programs
    - Web Site
    - Public Relations – AES Superfest
  12. OLD BUSINESS
  13. NEW BUSINESS.
  14. Adjournment to ?

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### **The ORC Newsletter**

465 Beechwood Drive  
Cedarburg WI\* 53012

### **First Class**

## **Next ORC Meeting**

**Grafton Senior Citizens Center**

**1665 7<sup>th</sup> Avenue, Grafton**

**Wednesday, March. 9<sup>th</sup>**

**7:30 PM**