



# 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.



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## The Prez Sez

By Tom Ruhlmann (W9IPR)

What fun it was, the corn-roast. I hope you were there as we all had a great time. Indeed, it was the highlight of my ORC month. Other than the corn-roast it was a pretty quiet ham radio month.



**While Dick (K9CAN) and I discussed the finer points of his phased verticals, Gary (W9XT) and Ed (AA9WW) joked about the deficient fire I had tended to boil the corn and melt the can of butter. Oh well, it was worth the wait – the corn was delicious**

I recently obtained a used Butternut vertical antenna. After I refurbished it and tuned it for each of the 9 bands I used it to replace my 40 year old 5 band HyGain 18AVT. I am very pleased with the results and look forward to some interesting DX.

I spent most of my free time this month working on a training program for those interested in up-

grading from Technician to General Class. The program is entirely in Power Point and covers all 10 chapters of the ARRL "General Class License Manual". We should be able to cover all the material in 5 sessions with a 6<sup>th</sup> being set aside for review and testing. We are taking the approach of teaching the supporting material rather than just the Q & A sessions. In that way, you should have a real understanding of some of the technical aspects of ham radio and HF and as a result be able to confidently answer the FCC questions required to earn your HF privileges. I am looking forward to starting the program in late October. If you are interested in earning your HF privileges, setting in as a review or teaching some of the sessions just give me a call.

Certainly, Katrina, Biloxi and New Orleans have been on everyone's mind these past several days. It and the Stoughton tornado's make one realize that a disaster could happen in Ozaukee county also – one never knows but perhaps we could be better prepared. Are we prepared personally and organizationally deal with a local disaster? I have spent some time listening to the Louisiana emergency HF frequencies of 3.873, 3.935, 7.235, 7.285 and the Salvation Army frequency of 7.265 MHz and while I could occasionally copy them it appears that most of the activity must have been on VHF & UHF for local coordination. I noticed just today that the ARRL is now taking names for volunteering in the devastated areas using UHF/VHF communications. A friend of mine in the "old timers" softball league is a Red Cross volunteer and he indicated they were taking volunteers if you are interested. Now that some of the refugees are coming to the Milwaukee area, I am sure that presents another opportunity to volunteer.

I guess that was about it for me and the month of August for ham radio. Why not take advantage of the month of September to volunteer to help on an ORC project - how about working on the membership committee, the '06 swapfest or the Post Everything Party for January – and there are always opportunities as the training coordinator or as an editor on the newsletter – wada-u say, get involved and have some fun.

## Contesting

De Bob Truscott (W9LO)

The fall contest season is just around the corner and September offers a number of interesting contests as a warm up for it. CW, SSB, RTTY, VHF, DX----they're all available this month. Give it a shot in your favorite operating mode:

Sept. 11 (Sept.10–7:00 PM, local time.) North American Sprint-CW. Rules in Feb. QST, page 102.

Sept. 10-12 ARRL Sept. VHF QSO Party. Rules in Aug. QST, page 90.

Sept. 18 (Sept. 17-7:00 PM, local time.) North American Sprint-SSB. Rules in Feb. QST, page 102.

Sept. 17-18 QCWA Fall QSO Party (Phone, CW, Digital) Rules in Sept. QST, page 99.

Sept. 24-25 CQ Worldwide RTTY DX Contest. Rules in Sept. QST, page 99.

Have fun contesting. Bob, W9LO

## High-Tech Test Gear

De Roger Zaun (W9UVV)

Several months ago at an ORC meeting our intrepid auctioneer, Dr. Stan, was wrapping up his sales effort for the evening when he picked up the last item from the auction table and announced “This is an Absorption Wave Meter”. Immediately comments were heard from the membership –“It’s a what?” “It measures waves like water or ocean waves?” followed by much laughter, etc. “No guys, it measures frequency. It’s actually an Absorption Frequency Meter.”

More laughter and comments –“It absorbs frequencies?” “Where do they go?” “Hey guys, its test equipment. What am I bid?” Big silence – “How about a dollar? No? If not, it goes in the dumpster.”

I finally offered a dollar. Why? Out of nostalgia I guess as I used this same item in the 1930's. This Absorption Frequency Meter consists of a variable condenser, plug-in coil and an indicator lamp all connected together to form a parallel resonant tuned circuit. These components are mounted on a small panel. The front bearing a number of concentric scales marked in megacycles, covering a range from 1.6 to over 400 MHz by means of seven plug-in coils. When this type of frequency meter” coil is inductively coupled, for example, to a transmitter final tank coil. It will absorb a small amount of its energy. When the meter is tuned to resonate with the transmitter frequency. A maximum of absorbed energy (current) will flow—brightly lighting the lamp, and the meter scale pointer then would indicate the unknown frequency. Hence the name Absorption Frequency Meter.

This relatively simple unit was a very essential piece of amateur radio gear in the 1930's and beyond. Some of the practical applications are as follows:



**The McMurdo Silver Model 903 Absorption Wave Meter and 4 of the 6 coils used to indicate the frequency of the monitored RF field**

Determine if a transmitter frequency multiplier stage is tuned to the correct harmonic frequency (doubler, tripler, etc.)

Adjust for neutralization of RF amplifier stage.

Tracing parasitic oscillations in amplifier output.

To make certain that a variable frequency oscillator's (VFO) output. Or harmonic is within amateur band limits.

To check a receiver oscillator circuits frequency, oscillation would stop when the inductively coupled meter is tuned to resonance.

Early in my amateur radio activities I found a need for this meter.

We were three newly minted amateurs, all students at Washington High School in Milwaukee: hanging out together linked by our common interest in radio. After a period of HF band operations, we decided to explore the sparsely populated five-meter band, 56 to 60 MHz. Very little commercial ham gear existed for this band and prices were beyond our means, so our equipment would have to be "home brew".

We proceeded to build relatively simple super regenerative receivers and self excited modulated oscillators in accordance with construction information in the ARRK Radio Amateur's Handbook. We scrounged for components and materials, and with a few false starts we built the rigs and got them operational. Wherever possible we used the parts specified, but a nagging another station transmitting, we figured this must be five meters, and we would all immediately tune our rigs to near his frequency (safety in numbers, we hoped). We operated in this manner for a period – our justification being the band is a big 4 MHz. Wide. It's empty; we're not interfering with any one. The Radio Inspector's office is in Chicago. Our signal range is limited and there is little possibility of monitoring our operations.

After a while we became a bit uneasy with this carefree method of operation. We reasoned after all, as licensed amateurs we were required by the Radio Communications laws "to take all necessary means to insure that operations are within the limits of existing amateur bands". To try and comply, our search found little commercial VHF frequency measuring equipment prices suitable for the amateur radio operator. However, we did become aware of a low cost Ab-

sorption Frequency Meter manufactured by the McMurdo Silver Co., Model 903 that could serve our needs. We pooled our weekly allowances and some lunch moneys and got off our order for a Model 903 to Newark Electric in Chicago.

In due time the meter arrived and a review of the instructions indicated it could perform the aforementioned measurements; however, it did caution that its calibration was +/- 10% and the meter should not depend upon making precise frequency measurements. This didn't deter us, so we agreed to use the meter to set our rigs to approximately the center of the five meter band: thus leaving a 2 MHz band either side of our transmitting frequency – greatly reducing any chance of out-of-band operation, and thus meeting our licensing requirements.

We continued operating VHF, enjoying local ragchews, building better gear, antennas and gaining one heck of a lot of experience and knowledge. Guys, this was the best we had to work with! This was high-tech amateur radio test equipment during the so-called golden days of amateur radio.

## Are you ready?

De: Tom (W9IPR)

With the tornado in Stoughton and now with Katrina I wondered if we might be called upon to provide any emergency communications. For the most part I reasoned, the requirement would be for 2 meters and 70 cm HT to provide local coordination of efforts. Then I thought about what I would take if called where the stuff was located and what I would put it in. That's when I remembered a hard-side briefcase I had in 70's or 80's.

Once I found it I realized it would contain and protect my HT's etc. but they could get damaged just bouncing around in the case. That's when I decided to determine exactly what I would take and to compartmentalize the case to hold exactly those items.

The picture following shows how the case was divided to securely hold 3 HT's, 3 chargers, 3 antenna, 2 speaker-mic's and a power strip. So

much for the amateur radio VHF/UHF communications equipment.



The case was divided into compartments with wood dividers glued and stapled into the case.

The dividers were glued in place with gorilla glue and then stapled to the case using a pneumatic power stapler.



The case also provides for storage of the essential information in the event of an emergency as well as personal identification

This picture shows some of the other items I now store in this communications grab bag. While the cell phone is normally in my pocket it is a good item to have along if possible, especially if it can relay pictures. The more typical items stored in my case are a map of Ozaukee County, tablets, ARRL message pad, pens and

pencils, log book, 2005 ORC roster, list of ARES and local net frequencies, list of government agency phone numbers, list of net procedures, known emergency plans (e.g. St. Mary's Hospital), flashlight and ORC and ARES identification. Well anyway, you get the picture. Think about it ahead of time, when there is no emergency, and keep all the essentials in a specific place, like a brief case, so you know at a glance if anything is missing.

Now to create a portable HF/VHF station for emergency service and which is not reliant on commercial power.

## Tips,Tails & Tools

Do not use RED insulated wire for antenna if you want them to be "stealth". Red wire shows up in the sun. Naturally, it all started when I got a good deal on some #14 stranded with red insulation. It is the only antenna about which the spouse has commented - and it wasn't good.

## Cornroast 2005

It was a great time with about 40 or so attending. The weather was great and the company entertaining.



Cindy (KA9PZG) and Ted (KB9RLI) kept the grill simmering as members lined up for firsts.

One of the highlights of the afternoon was the “fox” (hidden transmitter) hunt. Leon (K9GCF) supplied the transmitter in a black gallon paint can and Mohammed (KC9CPC) skillfully hid it in the woods.



**It may look like Ted “smoked” the brat’s and burgers but they still lined up for seconds**

During the hunt Leon (K9GCF), Mike (KC9GDV) and Tom (W9IPR) kept “zeroing in” on a particular area of the woods but the “fox” was eventually found by John (KB9PZL) who was following along without a receiver. Oh well, I guess there is more to a foxhunt than just an “S” meter.



**It looks like Leon (K9GCF) and Ed (AA9WW) were up to no good and perhaps plotting someone’s demise.**

Another program of the afternoon was a discussion group related to communications above 50

MHz and the various contests on VHF and UHF. The group was hosted by Todd Sprinkmann (KC9BQA) and he brought along his logbook to prove the potential of 2 meters SSB and the 6-meter magic band. Todd has one of the more significant VHF/UHF contest stations in the State and has much to share about these activities. During the discussion Gary (W9XT) mentioned he had made his first moon bounce contact and it was with a station in Russia. That 2-meter SSB sounds like fun. I would like to hear more about it.



**Many spent the afternoon just visiting as did Ed (AA9GT) and his wife Marjorie and Nancy Gilmore**

## For Sale, Trade or ?

KLM 20M5 5 element 20m 42' boom \$300  
 KLM 15M4 4 element 15m 14' boom \$125  
 KLM 10M4 4 element 10m 10' boom \$125  
 Each in excellent condition with heavy duty 4KW balun and manuals  
 Alpha-Delta DX-B sloper. 160, 80, 40 & 30m coverage. Only 60' long. New \$80 – asking \$40  
 Yaesu FT-5100 2m/440 FM \$150  
 Call Fred 262-376-5388. N9FH@ARRL.NET

## Upcoming Events

- September**
- 10<sup>th</sup> ARRL VHF QSO Party
- 14<sup>th</sup> Membership Meeting
- 18<sup>th</sup> Wisconsin Bike Ride

17<sup>th</sup> - W9DXCC convention at Elk Grove Village IL

17-18 Grayslake Chicago FM Repeater Club-Hamfest

10 – 11 North American Sprint – CW Contest

17 – 18 North American Sprint – SSB Contest

24 – 25 CQ WW RTTY Contest

## October

12<sup>th</sup> Membership Meeting

8<sup>th</sup> General Class Training Class Starts

## Club Static

The 10-meter link is now active on the ORC's 224.18 repeater. Those of you with 10-meter FM privileges and capability can now take part in the activity on 224.18. The repeater "repeats" everything heard on 29.600 MHz FM, including DX. By the same token, all activity on 224.18 goes out on 29.600 FM. Give it a try. Thanks to Dick, K9CAN, and Ted, N9LLT, for getting this system back on the air. 73 de Jim K9QLP



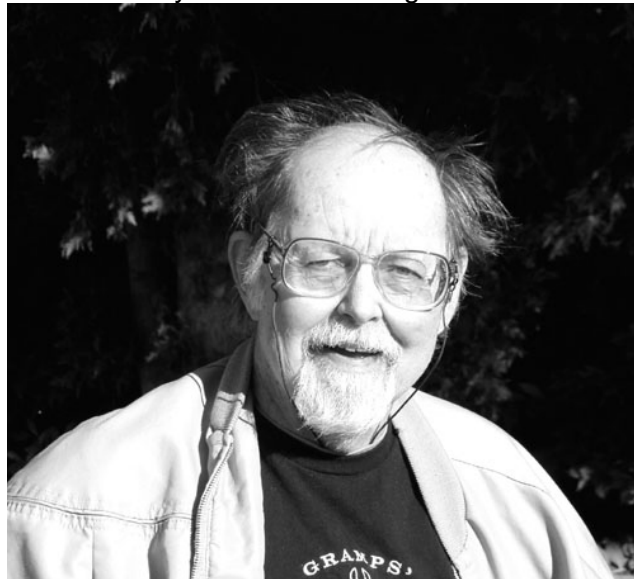
**We had company at the July meeting. Shown here on the left is Leon Hance (W4YFZ) and his wife Bess (KC4DG) on the far right who were in town visiting Ray (W9BUJ) and his wife Irene**

Gary Sutcliffe (W9XT) made his first "moon bounce" contact. It was with a Russian station. Sounds like the topic would make an interesting meeting program.

## Just Another Shack

De Steve Stevens (K9DXT)

Tom Oehler (W9LNL) has been interested in radio since high school but got his real introduction to radio when he served as a Navy Radioman on the aircraft carrier Coral Sea. Tom served in the U.S. Navy from 1944 through 1952.



Upon leaving the Navy he started work at the Milwaukee Journal as a pressman where he continued for the next 40 years.

It was in 1969 that "ham" bug bit Tom and he got his Novice license followed by his General Class license in 1970. He joined the ORC in 1977 and currently holds his Extra Class license.

Tom operates out of three locations – his home in Mequon, his cabin "up North" near Wildrose and Waupaca and from his car. He operates a couple of TS440's and an ICOM 706. While he runs mostly dipoles he has a very unique 40 antenna on the car.

It is a roof magnetic mount 40-meter Hustler with only a 6" lower section. While short, Tom says it really gets out pretty well and is easily installed or removed as the need to operate strikes him. Although not a contester or awards chaser Tom does enjoy HF and working DX. Due to the orientation of his dipoles most of his contacts are in Europe and the Caribbean. Among his favorite equipment are a vintage HT-33 transmitter and some of the Heathkits he has built over the years. When recalling some of his favorite con-

tacts the more surprising was with Walter Cronkite a few years ago.



**Tom is shown here with a unique approach to 40 meters mobil. The antenna is the loading coil and upper section of a 40-meter hustler antenna secured to the car with a magnetic mount. He claims it works good but I can't help but wonder about the SWR**

Tom has really enjoyed ham radio and the ORC since retiring and commented how he enjoyed the company of the ORC group. He noted that for a retiree "ham radio is a great way to get out of the house and travel the world without really leaving home"

## Alternatives

De Stan Kaplan (WB9RQR)

I am a believer in alternatives, especially in the computing world, and there are a number of them out there that many may not be aware of, so it is time to devote one column to them.

First, just about everyone is familiar with Adobe Acrobat Reader (the latest version being 6.0), which is a program that you can install to read documents with a .pdf ("portable document format") extension. Adobe provides the reader as a free download

([www.adobe.com/products/acrobat/readstep2.html](http://www.adobe.com/products/acrobat/readstep2.html)). Many organizations make their documents available in the .pdf format (including most US Government agencies). Documents in this format are not easily modified from the original, and they represent closely the format and "feel" of the original. The Adobe program that creates .pdf files from, for example, Microsoft Word documents, is quite expensive -over \$200. What you may not know is that there are a number of free programs out there that will also create .pdf files. One free one can be found at <http://www.pdf995.com/>. A bit of advertising comes with it which shows each time it is used, but you can get a version without the advertising for \$19.95. There are other free programs out there, too, without any embedded advertising. Let your cursor do the walking through a Google search page.

Now, for a really big alternative. Linux. Linux is a free Windows alternative that you can simply download and install. Why Linux? It is much more stable than any Windows version, which is why the majority of large US firms will have Linux installed as their main operating system for servers AND workstations by 2007. There are stories of Linux-based servers being booted up and running for several years without crashing. That kind of stability is what business demands, and we home users should demand it, too. All current versions of Linux come with a Windows-like Graphical User Interface, presenting a desktop that looks and works very much like a Windows desktop. You'll feel right at home when it first appears. Also, the latest Linux versions sport an impressive database of hardware drivers, so you should have little trouble getting your CD or DVD or sound card or video card or whatever, to work when you install the operating system. The two versions I will mention also support a dual-boot (and make installation a snap), so you can keep your Windows and choose which operating system you want to use at boot time.

I am familiar with two companies that bundle the Linux operating system and installation programs on CD-ROM's, and charge a fee for that bundling/CD service. Both are excellent versions of Linux. One is SuSe Linux (SuSe is a German firm), and its product now resides on one of my machines in a dual-boot configuration. That is, at boot up, I can choose for Linux to be booted, or Windows 98se. I find it very interesting that if I

boot Windows, it cannot see any of the Linux files on the hard drive, while if I boot Linux, it can see all its own files AND all of the Windows 98se files. I can even open a Microsoft Word file with SuSe Linux, edit it, then save the edited copy as a Word file! SuSe Linux is very good, and, of course, it comes in an English version. Version 9 is the latest and greatest, at this writing.

Red Hat Linux is the other brand - I have installed it on a couple of machines. Its look and feel are really very Windows-like, and I like the clean lines of the Desktop a bit better than SuSe. Version 9 is the latest, and you can download it at <http://www.linuxiso.org/distro.php?distro=7>. Alternatively, I purchased for \$16.95 (including shipping!) a 9-CD set that included Red Hat 9, all the source code, all the documentation, a Rescue CD and a copy of OpenOffice (reviewed next) from <http://www.freepctech.com>. Check them out for a similar deal.

Now let me tell you about OpenOffice! This suite is free, free, free (you can download it from <http://www.openoffice.org>. It is a true suite, because it comes with a series of programs that are very similar to those in Microsoft Office. I am writing this article in it now (!), and one could not tell that the application is not Microsoft Word without looking at the toolbars very closely. Yes, you can create, edit and save documents in the Word format with it, which is what I am doing right now. OpenOffice also comes with programs that are similar to Microsoft PowerPoint and Excel, with a drawing program thrown in. What I am reporting to you here is that you need not spend hundreds of dollars for Microsoft Office - OpenOffice will give you the same functionality, plus the ability to handle Microsoft files as well. Truly, there are alternatives! Happy computing.

(This article was reprinted in its entirety from the Badger State Smoke Signal newspaper)

## Minutes—August 10<sup>th</sup>, 2005

De Nancy Stecker, KC9FZK

### Ozaukee Radio Club

Regular Meeting August 10, 2005

Meeting called to order at 7:30 PM by President Tom W9IPR.

**Introductions:** Name and call sign were given by all present. Several visitors were present (see the attendance list at the end of these minutes).

**Bragging rights:** Gary W9XT demonstrated a method to connect PL-259s to aluminum clad 75-ohm hard line.

Jim K9QLP talked about ways of getting young people involved with the hobby through contacting teachers at local schools, as is done at his old school in Cincinnati.

Tom W9IPR announced he has 104 confirmed QSL cards from different countries. He also reported that a few people stopped by to look at the ORC exhibit at this year's Ozaukee County Fair.

A donated, 40-foot antenna was taken down in Glendale during the hot afternoon of August 9. Upcoming events in August include the AES Picnic in Fond du Lac on August 13 and the ORC Corn Roast on August 27. Some September events will be the Wisconsin Bike Ride on the 18<sup>th</sup> and Grayslake Hamfest in Chicago on the 17<sup>th</sup> and 18<sup>th</sup>. Ed AA9W has a Bearcat Tracker 2 scanner for sale.

**Program:** VRLA Battery Manufacturing, Lead Acid Batteries for Portable and Standby Power Applications. As a past employee of Globe Union/Johnson Controls/C&D Technologies, Tom W9IPR gave an informative slide show on lead vented and non-vented acid batteries, from the manufacturing process to the do's and don'ts of battery handling.

**Fellowship Break:**

**Auction:** by Stan WB9RQR.

**Business Meeting: Minutes** were accepted as printed in the ORC Newsletter. The Treasurer's report was accepted as printed on handouts on the tables.

**Repeater Report:** Nels WA9JOB e-mailed his report from out of state. Read by the President, the 146.97 repeater is operating well, the Mequon receiver is on the air at the Harvey resi-



dence and the 224.18 repeater is operating at Dick K9CAN's home.

**OZARES:** Jon KB9RHZ announced that the August 25 meeting of OZARES would be a Highway Watch program presented by Skip Sharpe W9REL, Assistant Section Emergency Coordinator for Training. Volunteers are needed for a September 18 Bike Ride. CERT Training classes have been canceled due to lack of interest. These classes teach the public how to react during times of emergency. The 20-hour session will be rescheduled.

**Committee Reports:**

**Public Relations:** QST Magazines with our labels are being seen in various locations. Mark KC9GST had his picture in the August 2005 issue of QST showing a copy of the magazine with one of our labels.

**Scholarship:** Ed AA9W announced the scholarship fund total is \$13,600 with an additional \$160 added to that amount this evening. The fund is close to being self-sufficient. When that happens, further proceeds will then go into the general fund.

**Corn Roast:** Ed AA9WW will be calling on members for additional help for the corn roast being held at the pavilion in Waubedonia Park August 27<sup>th</sup>. Bring a dish to pass and plan to eat at noon. Leon K9GCF will organize a foxhunt. Other entertainment is planned.

**Field Day:** Leon K9GCF said that, at a recent post-Field Day meeting, safety was a top priority. Suggestions for tower and antenna improvements were also made. The committee recommends a safety officer and a tent officer be assigned to supervise conditions, as well as needing more manpower during set up. Electrical power needs to be supplied differently. And poison ivy has to be eliminated. A date will be set up to meet again.

**Old Business:** Dave N9UNR asked the board to reconsider his request for a small supply of GOTA Pins and extra Field Day Pins to be handed out to visitors and press at next year's Field Day. It will be discussed at the September meeting.

Gabe WI9GC will gather information and price for hats, shirts and jackets with the ORC logo silk-screened on them. He visited the Sullivan Weather Forecast Office in Dousman and said it was a great place to tour.

**New Business:** A proposed two-year budget had been placed on tables by the treasurer for the membership to review. There being no discussion the chair entertained a motion to approve the budget, Greg W9DHI made the motion, Don W9VSC seconded it and the motion passed.

**Attendance:** KC9GST, W9LNL, W9BCK, W9BUJ, W9KHH, WA9UVK, W9UVV, WI9GC, KA9RFM, AA9WW, K9GCF, KC9GDV, KC9CBC, KC9FZK, KC9GSS, AA9HR, KB9VJP, K9QLP, W9VSC, KB9WBQ, AA9XK, WB9PZD, KA9PZG, N9LLT, N9UNF, WB9RQR, KC9CPC, W9DHI, W9XI and guests Irene Brunette, Leon Hance W4YFZ and Bessie Hance KC4DSG.

Meeting adjourned at 9:30 P.M.  
Nancy KC9FZK Secretary

## **AGENDA**

*September 14th, 2005*

1. Call to order – Tom (W9IPR)
2. Introductions.
3. Announcements, Bragging Rights, Show & Tell, Upcoming events, Etc.,
4. Program: Railroads & Communications
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.
  - Membership –
  - Public Relations –
  - Youth Program –
  - Corn Roast –
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, September 14<sup>th</sup>**

**7:30 PM**