



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

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Volume XXIX

July, 2017

Number 7

From the President

de Kevin Steers (K9VIN)



Wow, where did June go? With recovering from the Dayton Hamvention trip, a board meeting, a club meeting, and then Field Day, boy how time flies.

Thank you to all those that helped to execute on a very successful field day! The weather was perfect; cool, and breezy, which helped to keep the bugs down. I appreciate the spirit of volunteerism, as trailers were loaded and transported, the tent was erected, and other Friday afternoon activities were completed. Thanks to Stan WB9RQR for again, providing three beautifully prepared Turkeys! Thank you to all those that brought varying dishes to share. I appreciate everyone that helped to organize the repast, including Nancy KC9FZK and Julia KB9WBQ, who made sure we got our fill, and made sure we did not forget to eat during the excitement of the weekend.

Special thanks to Ken Boston W9GA for coordinating the feat, but more importantly thank you to those that stepped up to be band captains, and tower/antenna teachers to some of us lesser experienced hams, and safety officers, etc. I am sorry; I know I am missing a lot of folks that were Key, but I must stop somewhere 😊 Most importantly, thank you to those diehards that stayed to the bitter end to see that everything made it back in the trailer and back to the barns.

On the Bench: I bought an older Ameritron AL84 amp at Dayton, with no history on it. I am no electronics expert, but when plugged in, it would warm up and blow fuses. I enlisted the help of Chuck W9KR, and after a bit of testing, and with a new set of tubes, it appears to be putting out what should be expected of it. I am excited to get it on the air sometime soon, and more excited to be on the lookout for an antenna tuner that can handle the power.

Lastly, I am excited to see the club, once again, serving the ham radio community by providing another scholarship, this time to Emily Palm KC9VEM, a Wisconsin ham. See the associated article in this newsletter. Thank you to Tom W9IPR and Ed AA9W, and any other members of the scholarship committee for their tireless work of appraising, inventorying, transporting, and hawking their wares at numerous events throughout the year to continue to fill the scholarship coffers.

DXing & Contesting

de Gary Sutcliffe, W9XT



July is kind of a slow month for radio. Field Day is over and it takes a bit of time to recover from that. I just got my radio installed in the shack, over a week after it was over. That is quicker than most years for me.

It will be interesting to see how we did. We had the conditions that are needed for a good showing from the Midwest. We need a good sporadic E opening that keeps 20 meters open late into the night. We got that. Having 15, 10 and 6 meters open up on Sunday also helped. It has been about 3-4 years since we had the openings on 10 & 6 meters. It was a fun time. At one point, I saw that we were making over 300 QSOs per

hour.

The biggest contest of the month is the IARU contest. It starts at 1200 UTC (7:00 AM local) on Saturday July 8, and runs for 24 hours. There are a lot of different single op categories to choose from. You can operate CW only, phone only or mixed mode. Then you chose if you want to operate high power, low power or QRP. Then you decide if you want to go regular single operator, or use packet and be in the unlimited class. That should be enough for everyone. Oh yes, there is also a multi-op category. The exchange is signal report and IARU zone. This is different from the CQ zone, which is 4 for us. Use zone 8 for the IARU contest. There are also IARU headquarter stations. They send signal report and the abbreviation for their organization.

QSO points are 1 point for the same ITU zone, 3 points for different ITU zone but the same continent, and 5 points for QSOs with different continents. HQ stations count 1 point regardless of their location. Multipliers are different ITU zones and HQ stations per band. Unfortunately, this one is the same day as the South Milwaukee hamfest. Complete rules can be found at <http://www.arrl.org/iaru-hf-championship>.

DXpeditions are typically at a low point in July as well. The most interesting one is to Marquesas Island July 29-August 6 by three French and one American ham. They will be on 80-12 meters, CW and SSB. The call sign is TX5EG. A group of young hams will be operating from Market Reef (OJ0) July 15-22. hey will be on 80-6M. No call has been announced.

WW6RG will be making short stops on a couple of Pacific Islands in July. He will be on Wake Island on July 20 as WW6RG/KH9. Then he moves on to the Marshall Islands on July 24 and July 26 as V73/WW6RG. Twenty-meter phone only.

At Field Day, someone in the club (I don't remember who) asked me about working Luxembourg for a new country. They tend to be active in contests but you don't hear them all that often at other times. A couple of hams from the Netherlands will be operating with LX/their home calls from July 6-9. They will be on 160-10 meters, CW, SSB and JT65.

That wraps up July. Enjoy the summer – it is so short in Wisconsin!

THE COMPUTER CORNER

No. 233: Ransomware

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This nasty, relatively new type of malware (starting around 2012) blocks your access to your data on your computer until you pay a ransom. Or it threatens to publish your inaccessible data or delete it, until a ransom is paid. It often encrypts your files in a way that makes them inaccessible to you or anyone without the encryption key. It claims that if you make payment of the ransom (often in Bitcoin, which is difficult to trace) it will send you a key that will unencrypt the files. However, don't believe it. Often, once the bad guys have their money, the key is not even sent. Or if it is sent, the key does not work properly, and the victim is still out of luck. Therefore, if you get hit with ransomware, the best procedure is not to pay the ransom.

How do you get it? Often, via a Trojan, disguised as a harmless file that you are tricked into downloading. Or, the infection may be hidden in an email attachment that you are enticed into opening. Or, it may just automatically travel from one computer to another on a network. The message: 1. Don't download stuff unless you are reasonably sure it is safe (Majorgeeks.com is a safe site for software, as I have told you before). 2. Don't open email from persons you do not know (that means do not even read it!). For sure, don't open any attachments from folks you don't know. 3. Stay off networks as much as you can (more on this later).

So, how can this bad boy be fought? It is a little like a bottle of poison pills. If you don't swallow any, you will be safe. If you swallow even one, you will die. Safety lies in not taking a pill. Safety lies in not getting infected. In other words, safety lies in prevention. Don't take any tablets. Don't get infected. Also, you can take some steps so that if you do get infected, you can reverse the effects of the infection. The latter ploy lies in being able to replace the data from another, non-infected source. Another computer or CDs/DVDs that hold backups of your data. Let me tell you how we do it and you should be able to prepare your own ploy.

We have six, network-capable computers at our QTH. Five of them are networked 24/7. These five include my main machine, my laptop, Nancy's (KC9FZK) machine, my Winlink machine and a general ham computer. The first three are in our second-floor office, the latter two are in the basement. In each case, the stuff that we create (letters, photos, spreadsheets, etc., are kept on the E: drive of each machine (C: is for Windows or Linux, D: is for programs). E: contains the only truly irreplaceable data. E: is identical on all five machines. Whenever Nancy or I create something new (such as this article) it is copied to the other machines within a day, using a backup program. About every three months, we burn a DVD E: backup from one or another machine (it doesn't make any difference which machine is used for burning since the data on each E: drive is essentially identical to all the others).

So, we appear to be covered. If we ever find we are infected, we can simply replace the files from a non-infected DVD, after finding and killing the infection in all the computers. But, I have taken one more step recently. That's where the sixth machine comes in.

About once a week (more often if we are busy creating), we turn on the sixth machine. It, too, has an E: drive with our irreplaceable files on it. We update its E: drive from one of the others. Then we turn it off. Off means it cannot become infected. But it is a source of the last week's work.

Is that sixth machine a big expense? Nah. You've had many opportunities to buy a used laptop at the ORC auction for about \$25 in the last year. Really good ones, too, since I rebuilt them! Perfect for such backups. Or, you can purchase a USB hard drive to make such backups. That will work, too. At the very least, periodically burn those DVD backups. You will love the added security, and you will like the archival nature of those DVDs. We have gone back to them at least twice a year to look up something that no longer existed on our E: drive, such as a copy of an old issue of the ORC Newsletter. We even move a backup DVD, about once every two years, to our safe deposit box! How's that for security? Happy computing!

WSPRing with WSPRlite

De Tim Boppre, KA9EAK



Weak Signal Propagation Reporter, WSPR is a weak signal communications mode that was first introduced in 2008. Joe Taylor (K1JT) developed it. He is an astrophysicist and Nobel Prize in physics laureate (<http://www.physics.princeton.edu/pulsar/k1jt/>). Joe Taylor is very prolific developer of weak signal communications modes and the accompanying software, WSPR being just one of several. I started to experiment with WSPR about 2.5 years ago. At the time, I was using my

ICOM IC-718 and a Signalink USB interface along with the WSPR software. I've WSPR'd on and off with it since then, running 1 W as that's as low as I can set the power on the 718. Recently I was reading a post on Andrew, VK1ADs blog (<https://vk1nam.wordpress.com/>) about a new WSPR transmitter that was developed and sold by the SOTABEAMS folks in the UK. It looked interesting so I ordered one from their US distributor, DX Engineering along with the Low Pass Filter kit.



The device is called the WSPRlite (<http://www.sotabeams.co.uk/wsprlite>). It's a 200 mW WSPR transmitter that supports the 20m and 30m bands, and with the added Low Pass Filter kit it can operate on the 40m, 80m, and 160m bands. The WSPRlite transmitter comes assembled in a 2"x2"x0.75" enclosure. The only interfaces are a micro USB port for power and configuration, an SMA connector for an antenna, and a button to start transmitting.

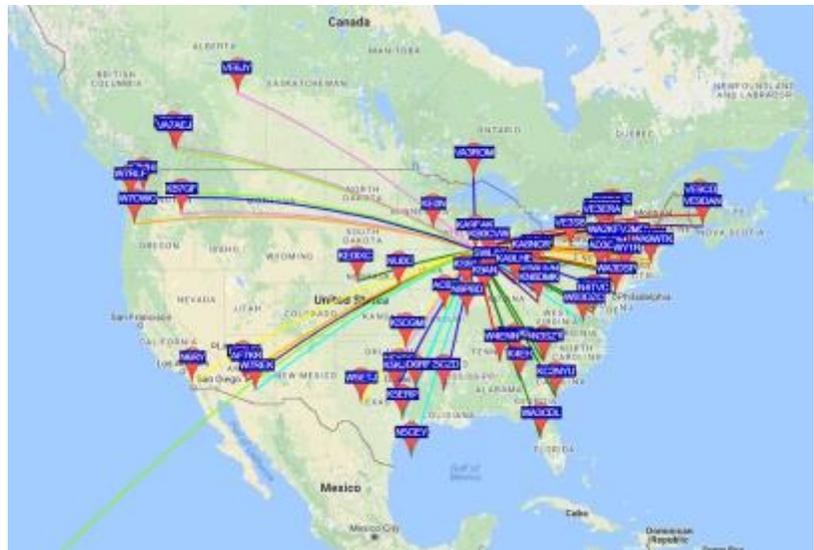
To get started you download and install the WSPRlite configuration software from the SOTABEAM site and plug the WSPRlite device into a USB port. Configuration is as easy as entering your callsign, your grid locator, the band upon which you wish to operate, and the power setting leaving the other entries at their defaults.



Then simply attach an antenna to the SMA connector and access an exact time reference like the USNO site (<http://www.usno.navy.mil/USNO/time/display-clocks/simpletime>) and press the start button on the WSPRlite at 2 seconds past an even minute. The WSPRlite will start to transmit and continue to WSPR until you disconnect the power. If all goes well you should start to see spots of your transmitter on the WSPR reporting site, <http://wsprnet.org/drupal/>. WSPR stations can take three forms: transmit only, receive only, and both transmit and receive. WSPRlite is transmit only. Thankfully there is a good mix of all the forms of stations scattered around the world such that you will have a pretty good chance of being heard if propagation is good.

The nice thing about the WSPRlite transmitter is that you don't have to tie up a radio and a computer. If the WSPRlite transmitter has power (supplied via the micro USB port and a standard wall wart for charging other USB devices) and is connected to an antenna you are WSPR'ing.

The WSPRlite transmitter includes one year's access to the premium portion of the DXplorer site, <http://dxplorer.net/>. This site allows you to do comparisons with other WSPR stations and provides graphical views of band openings among other features. The DXplorer site combined with the WSPRnet site will give you all of the information that you need to start analyzing your and other spots to experiment with antennas in various band conditions. Obviously, there are a bunch of variables involved but it is interesting to experiment with different antennas at different times to see how your antenna farm is functioning. You can also use the WSPRnet site without even WSPR'ing yourself as another indication of band openings.



If you've not experimented with WSPR yet, I'd recommend trying it. It's easy to do and very interesting and may give you some insight into your station.

The ORC \$2000 Scholarship is awarded to KC9VEM



Dear Mr. Rate and members of the Ozaukee ARC: I'm Emily Palm, aka KC9VEM, recipient of an FAR scholarship. I am very honored to have been awarded this scholarship. I really appreciate your generosity.

Let me tell you a bit about myself. I received my Technician license in 2011 when I was 14 and have participated in a variety of ham radio events since then. Over the years I have taken part in ARES/RACES net, weather spotting, radio contests, Field Day, and volunteer work at the county fair. My most recent achievement was studying for and receiving my General class license during Christmas break 2016. In addition to being a member of a ham radio club, I have also been a member of Snowflake Junior Ski Club, GLAD Farms Pony Club, a teen pro-life group called Rise Up for Life, and the Nerison 4-H club. These clubs have given me the opportunity to work with various teams, to develop my leadership skills, and to serve others. I love to sing in the choir every Sunday, which is another opportunity for me to work with others on a team.



Since I live in Wisconsin it may be no surprise to hear that I work on a dairy farm, milking cows and feeding calves. An additional part-time job at the local grocery store gives me an opportunity to get to know others in the community. In my free time, I work with my 7-year old Connemara gelding whom I have owned for 4 years. I also love to read books—P. G. Wodehouse and Dorothy Sayers are a couple of my favorite authors. I have an artsy side which I display by rubber stamping, embossing, and coloring different kinds of greeting cards and paper crafts.

After being home-schooled up through high school, I began attending Christendom College in Front Royal, VA, where I will be a sophomore this fall. Christendom is a liberal arts college, but offers a mathematics major which I am now pursuing. I hope to complete my studies in math and then become a math teacher, perhaps after going on to graduate school. Christendom is an excellent college, and I love it, so thank you so much for aiding me in continuing my education at this great school. Your scholarships enable me to attend my first-choice college. I couldn't be happier anywhere else.

Thanks again and 73, Emily, KC9VEM

NIFOG Booklets

At the last ORC meeting, there seemed to be a great interest in the National Interoperability Field Operation (NIFOG) booklets. I provided just the few extras I had and they went fast. If you missed getting a copy and have an interest in the information they contained, there is a mobile app available on iOS and Android. Just go to the appropriate store and search for eNIFOG. Thanks for your interest!

Don Zank, AA9WP
OZARES Emergency Coordinator

UPCOMING EVENTS

Membership meeting – July 12, 2017
South Milwaukee ARC Swapfest – July 8 in Oak Creek

July 12th meeting program

Measuring the Air. Part II – Tweaking broadcast band antennas – Nels Harvey, WA9JOB

Editor's Note: I have many photos from the field day. They are not in this edition of the newsletter because they are still in my Nikon camera which is somewhere.

Ozaukee Radio Club

June 14, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary

Ben E. (K9UZ), Secretary, called the meeting to order at 7:28 PM (in President Kevin's (K9VIN) temporary absence; also First VP Pat V. (W9JI) couldn't attend the meeting). All the attendees introduced themselves.

Announcements:

Ken B. (W9GA) commented that during the VHF contest the past weekend, 6 meters for contacts in Europe was particularly strong.

Bill B. (KD9FGB) announced that there will be a new drip coffee maker for Field Day.

Ed R. (AA9W) introduced Mike Harrington (KD9GCN), who is the new Repeater Trustee.

Program:

Ken (W9GA) gave a presentation on the state of preparations for the upcoming Field Day activities.

Spring Swapfest:

Loren J. (N9ENR) reported the results of the Spring Swapfest. Total revenue was \$2,225, excluding expenses. 270 entrance tickets were sold (last year's figure was 284). 29 tables were rented, and 31 tables didn't sell. The profit was just over \$1,000.

Kevin (K9VIN), who arrived to the meeting late, took over the meeting after the Fellowship Break.

50/50 Drawing:

Curt S. (N9CBS) was the 50/50 Drawing winner.

Auction:

Stan K. (WB9RQR) conducted the auction. Many items were sold.

Officer Reports:

Kevin S. (K9VIN), President - A letter from the Grafton Parks & Recreation Department was received regarding the rental fee increase. Rather than charge the \$360 rental fee that was previously charged to the ORC for 2017, they compromised by increasing the rental fee from \$120 to just \$240.

1st VP - Pat V. (W9II) was not at the meeting, so there was no First VP report.

2nd VP - Since the 2nd VP office is vacant, there was no report.

Tom T. (KC9ONY), Repeater VP - The equipment rack at the barn is almost finished. Sandy W. (W9BTN) is having the roof replaced, so that will fix the problem of water leaking into the repeater shack. Until that's completed, Tom would like to put a tarp above the shack.

Ben E. (K9UZ), Secretary - The minutes from May's meeting is in the newsletter. Motion to accept the minutes, subject to clarifying that Art (AC9CD) left his EC position at OZARES to become the Southwest Wisconsin District EC, was made by Dave B. (N9UNR); seconded, and passed without debate.

Dave B. (N9UNR), Treasurer - A motion to accept May's Income and Expense Report was made by Dave; seconded and carried without debate.

Old Business:

None.

New Business:

Loren J. and Tom T. will be taking down Bill Howe's radio towers sometime this summer. If anyone is interested in any of the hardware, let either of them know.

Adjournment:

A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 9:15 PM.

Attendance:

There were 46 members and 2 guests present at the meeting.

A copy of the attendance sheet is available upon request in PDF format. Please contact Ben Evans via email at ben@evansengsolutions.com for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ
Secretary

AGENDA

July 12, 2017

1. 7:00 – 7:30 PM – Network & Rag Chew
2. Call to order: Introductions. Kevin Steers (K9VIN)
3. Announcements, Bragging Rights, Show & Tell, Upcoming events, etc.
4. Program: Measuring the Air, Part II - Tweaking Broadcast-Band Commercial Antennas. Nels Harvey, WA9JOB.
5. 50/50 Drawing – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Kevin Steers (K9VIN)
9. 1st VP Report – Pat Volkmann (W9JR)
10. 2nd VP Report –
11. Repeater VP report – Tom Trethewey, (KC9ONY)
12. Acceptance of Minutes: Ben Evans (K9UZ)
13. Treasurer's report – Dave Barrow (N9UNR)
14. Committee reports.
 - A. Scholarship Committee
 - B. Other:
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizzeria

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The ORC Newsletter

465 Beechwood Drive
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First Class

Next ORC Meeting

Grafton Senior Citizens Center

1665 7th Avenue, Grafton

Wednesday, 12 July 2017

7:00 PM – doors open

7:30 – Membership Meeting