



# 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 XXX

January, 2017

Number 1

## From the President

*de Chuck Curran, W9KR*



I hope that everyone has had a great Christmas and New Years, our family sure did. With the Holiday's being over with, we should all be keeping in mind the upcoming Awards Banquet to be held on February 18<sup>th</sup> at The Hub in Cedarburg. Pricing and reservation information will be posted on the club web site in the first few days of January.

During the month of December we sure had enough snow and a few cold days too. I was pleased that I had no antenna work that required a trip out into the snowy yard. My last antenna activity was completed in late October, on one of the nice warm days. Our yard has three Ash Trees and two of them are used for

antenna supports. Both are about 60-65 feet high. For the last 9 years every spring I place an Emerald Ash Borer preventive chemical treatment around the base of all three trees. Unfortunately, one tree that held the ends of my 80 and 40 meter dipoles has been looking pretty sick, with all the signs of Emerald Ash Borer infestation.

So, I called a tree service and had the tree cut down and the stump ground out. That was in August and I got the 80 meter dipole back up and finally in late October the 40 meter dipole was back up and operational. The 40 meter stayed at the same height but the end of the 80 meter dipole went from about 50 feet down to 30 feet. It appears I need to start putting fertilizer on that Maple that is now holding the 80 meter dipole!

It looks like the 2017 West Allis RAC will hold the Hamfest on January 7, 2017. It will be held in the Arena building from 8:00 AM to 1:00 PM according to their web site. I have always found it an interesting place to visit, I typically come home with some treasure I really don't need!

Please don't forget that your club membership dues are due. See our Treasurer at the club meeting or use the PayPal link on the club web site. Using the club treasurer's email, [treasurer@ozaukeeradioclub.org](mailto:treasurer@ozaukeeradioclub.org), you can pay directly.

Band conditions have proven to be faithfully following the normal for this time in the Sunspot cycle. I see relatively bad conditions on all bands, but there are those brief positive moments that do occur. I have had a few days where the noise level is about 20 db over S-9 on 75 meters. Then I wake up, and go upstairs and turn off the variable intensity lighting in our kitchen, and we are back down to the expected S-7 noise level! I better hang a note on the shack door about those lights!

73's to all,  
Chuck W9KR

# Allen L. Albinger – K9VNM - SK

February 25, 1941 - December 9, 2016



Allen Albinger, age 75 years of Saukville, passed away on Friday, December 9, 2016 at Lawlis Family Hospice in Mequon. He was born February 25, 1941 in Sheboygan, son of Paul E. Albinger Sr. and Helen (nee Link) Albinger.

Allen worked with his father, his brother Jerry, and Uncle Clarence at Albinger Automotive in Saukville until retiring. Allen was an avid Ham radio operator, dedicating over 50 years of service to the MARS organization which connects overseas active duty military personnel with their families back home. He was a member of St. John XXIII Parish, a 39-year member of the Saukville Fire

Department, the Ozaukee County Radio Club, and the Silver Springs Radio Club of Ocala, FL, both of which he had served as president.

He is survived by his two brothers Gerald of Ocala, FL and Paul Jr. (Barbara) of Gilbert, AZ, nieces and nephews, and special friends Chuck and Charity Kroeger, Ellen Adams, and John and Sandy Beecher. He was preceded in death by his parents.

## DX'ing & Contesting

De Gary Sutcliffe (W9XT)



Recently Gary, K9DJT, was commenting on how his contest CW skills had improved but he still didn't feel comfortable calling CQ and having stations call him. This is also referred to as "running stations". When the conditions are right you can work stations much faster if you run.

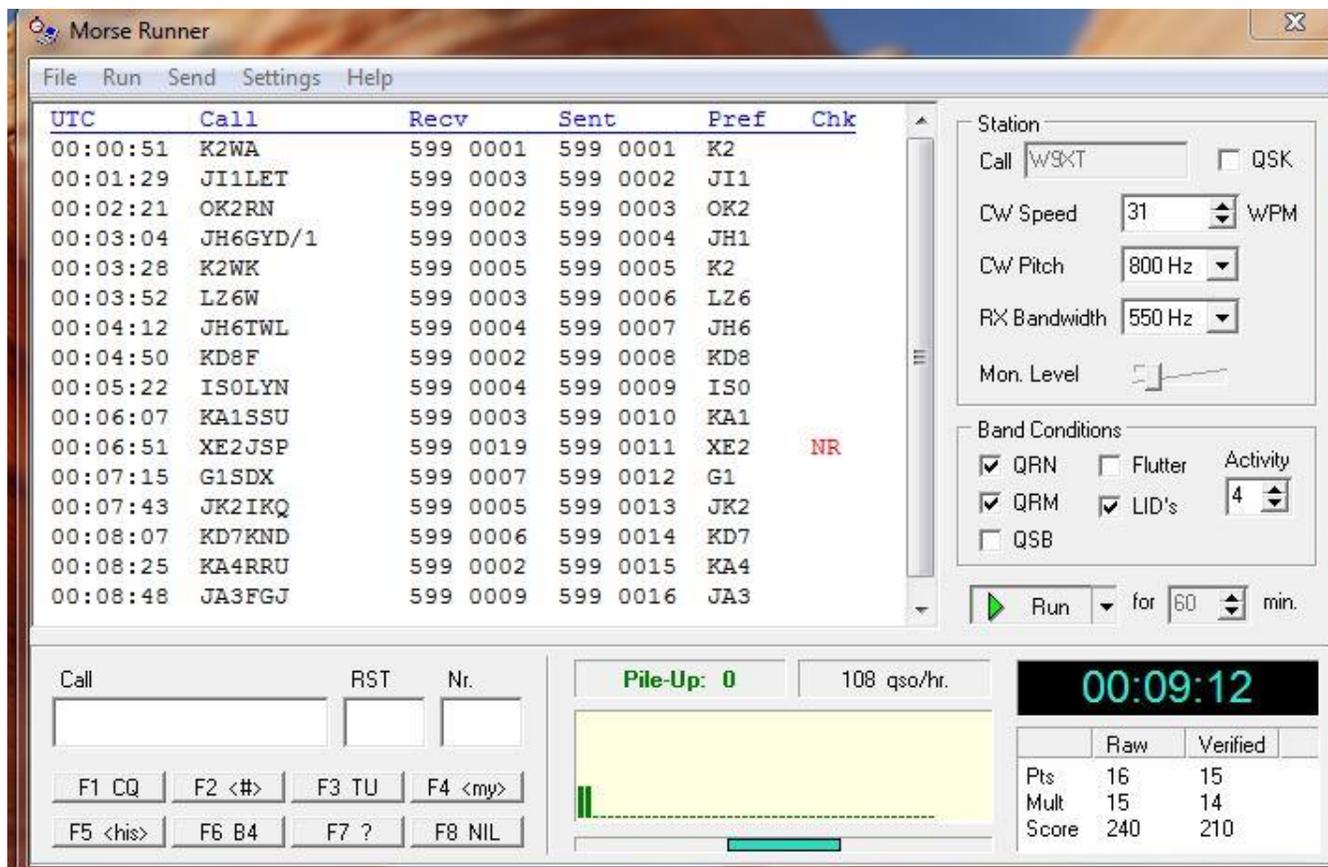
There are several reasons for this. First, as you tune the band, you must wait for the other station to ID, look him up to see if you already worked him, then wait until he is ready for another call. If you get beat out you must wait until he finishes the QSO before trying again. There is a lot of waiting going on.

By running the other guy is doing that to work you. When the stars align, you will have one or more callers after you finish each QSO. Short term QSO rates can sometimes surpass 200 QSOs/hour if it held up for a full hour. It rarely does unless you are a rare DX station, but rates of 60-100 hour are sometimes possible even for a low power station.

I suggested to Gary that he tries one of the pile up simulator programs. Two that I knew about were RUFZ and PED. I had not used them in years, and was not sure if they were still available.

A few days later Gary told me he was playing with RUFZ and his speed was increasing. He was not quite ready to try running on the air yet but it didn't sound like it would be long.

This got me curious so I started looking around and found a program called Morse Runner. I downloaded a copy (it is free) and am very happy with it. It simulates the CQ WPX CW contest. In that contest you send a signal report and serial number. It has a logging interface that matches pretty much all contest logging programs with the function keys in the standard set up.



A screen shot shows the program. You start by entering your call in the call sign box. Set up the CW speed and if you wish, play around with CW pitch and bandwidth. Click the Run button, press F1 to start calling CQ. When a station calls you, enter the call in the window at the bottom, hit F5 (to send his call), then F2 to send the exchange. The other station will send their exchange. Once you enter his serial number press ENTER to log the call. It will send TU (thank you) and other stations will call you. If they don't, press F1 again for another CQ.

The calls are logged and you are graded. You can see the red NR next to the XE2 call. I entered the wrong serial number for that one and I lost credit. If the call was entered wrong it would have a red NIL flag.

Once you get comfortable you can change band conditions. Some things you can add are QRM, QRN, QSB and flutter. You can also check the LIDs box and throw in a few bad operators from time to time. The activity indicates how many callers you get. The higher the number the higher the average number of callers, but it is somewhat random. Even with a fairly high number you might get times when no one comes back to your CQ.

Morse Runner is a great program for improving your skills or as a warm up before a contest. Try it. As a side note, does anyone remember DR DX? It was a Commodore C64 program that simulated the CQWW contest. It was extremely realistic.

Contests in January start out with the ARRL RTTY Roundup. As the name suggests it is a RTTY contest. RTTY contests are getting increasingly popular with the use of the PC with a sound card interface. You can get on RTTY very inexpensively. The RTTY Roundup starts at 1800 UTC Saturday (noon local) January 7 and runs to 2400 Sunday (6:00 PM local). You can only operate 24 hours maximum. Off time can't be in more than two blocks. We send signal report and state. DX stations send signal report and a serial number. Work everyone once per band. More details at <http://www.arrl.org/rtty-roundup>

If you decide to get on for this, be prepared for some stiff competition. K9DJT won Wisconsin for the low power unlimited category last year. I'm sure he will be out full force defending his title.

The North America QSO Party winter events start out this month. The CW event starts on January 14 and the phone is the 21<sup>st</sup>. Both start at 1800 UTC (noon local) and run 12 hours, but you can only operate 10 of them. The exchange is your name and state. The NAQPs are great contests for smaller stations because the maximum power is 100 watts, and small, low antennas work well for domestic contests: <http://www.ncjweb.com/NAQP-Rules.pdf>

January is a good month for the low bands, and the CQ WW 160-Meter Contest is a good time to be on 160 meters. The CW portion starts at 2200UTC January 27 (4:00 PM local) and runs for 48 hours. We send a signal report and state. DX stations send signal report and CQ Zone. <http://www.cq160.com/rules.htm>

The ARRL VHF contest begins at 1900 UTC (1:00PM local) on Saturday Jan 21 and runs until 0359 UTC Monday January 23 (8:59 PM Sunday local). The exchange is the grid square. Use the VHF bands from 6 meters up. There are several different operating classes, so check the rules: <http://www.arrl.org/january-vhf>

DX-wise, January is quiet. A70X from Al-Safliyah Island starts out on January 1-7. While Qatar is a rare country, the purpose of this is to activate a rare IOTA island. This is a good sized operation with 3-4 stations on, 160-10M, and CW, SSB and RTTY.

Micronesia (V63) will see some activity by a group of a half dozen hams January 4-22. Each operator has their own V63 call. 160-6M, CW, SSB, Digital.

A similar Pacific operation will occur from Palau on January 14-18. The five operators have their own T8 calls. 160-10M, CW, SSB, and RTTY.

Continuing the trend is an operation from Vanuatu. The three ops will be operating using separate YJ0 calls January 20-February 23. 160-10M, CW, SSB, RTTY.

There are some other interesting operations but they are only single op efforts. Often, they are vacation style and are only one between other tourist activities. The best way to get them is to be at your radio.

This wraps up January. January is a time for New Year resolutions. How about a resolution to download a copy of Morse Runner and practice to be ready to help at one of the CW stations at Field Day?

# The Computer Corner

## No. 227: *Junkware Removal Tool* and Cybereason RansomFree

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



At the ORC breakfast the other Saturday, Ed Rate again railed against unwanted toolbars and browser helper objects, as well as popup ads. Well, I came across a tiny program, now owned by Malwarebytes, that will do the job in a short time. It is a FREE, portable app (it does not need installing) that takes very little memory and bails out when done. Thus, you run it, it does its job and it is finished. I run it directly on my desktop, which works fine. JRT.exe will remove little unobvious bits of code that breed popup ads. It also removes PUPs (Potentially Unwanted Programs) and any leftover PUP fragments. And it takes very little time – you can watch it do its thing in a minute or two or three (on a reasonably clean machine).

When run, JRT.exe requests a restore point (but don't worry if creation of a restore point fails ... you can continue to run JRT anyway). Then it begins to scan:

1. Processes.
2. Startup -Logon.
3. Startup – scheduled Tasks.
4. Services.
5. File System.
6. Browsers.
7. Shortcuts.

...and then it prepares a short text file containing a report.

There are a couple of “gotcha”s to be aware of. When run, it opens a Command Prompt (DOS) window, and works within that. However, you can follow the progress just fine on your screen. Also, there are no options when it is run – it does its thing as it wishes and then it quits when the job is done. It will sometimes close running applications, so be sure to save all your work before you start it and have available any programs that you might want to start back up after it has finished in case they are closed.

Probably the best thing to do is to go to <http://www.majorgeeks.com> where you can get the program (JRT.exe). It would be best also to run the short video there by Tim which explains what to expect. Now, Tim says that JRT is mainly for techs, but I maintain it will do a great job for anyone at any skill level who wishes to touch-up a system. I ran it on four of my computers with no major problems. One failed to create a restore point but I proceeded anyway. Oddly enough, only wife Nancy's (KC9FZK) computer had nothing for JRT to clean up. Fancy that!

**NOW I HAVE A FLASH.** RANSOMWARE is a particularly nasty type of malware that gets into your machine one way or another and begins to encrypt your personal files, and then delete the non-encrypted versions. It presents you with a message like this:

I want to play a game with you. Let me explain the rules. Your personal files are being deleted. Your photos, videos, documents, etc. ... But don't worry! It will only happen if you don't comply. However, I've already encrypted your personal files, so you cannot access them.

Every hour I select some of them to delete permanently, therefore I won't be able to access them, either.

Are you familiar with the concept of exponential growth? Let me help you out. It starts out slowly then increases rapidly. During the first 24 hours, you will only lose a few files, the second day a few hundred, the third day a few thousand, and so on.

If you turn off your computer or try to close me, when I start next time you will get 1000 files deleted as a punishment.

Yes, you will want me to start next time, since I am the only one that is capable to decrypt your personal data for you.

Now, let's start and enjoy our little game together!

After that, arrangements are typically made for you to send \$150 or more in bitcoin funds for the malware authors to free your files. Nasty. Costly. Impossible for the average user to bypass. Traditional antivirus software cannot stop it, so don't be complacent and think you are protected, because you are not. But there is a no-cost solution for the average home user.

A new company, Cybereason, was founded from a corps of experts who had experience in a military cyber security branch of the IDF (Israel Defense Force). Their new venture is aimed at protecting companies from attacks in real time, for a fee. But, they are making a free program available for non-commercial computer users – to prevent hijacking by ransomware. When installed, the program will alert you immediately of any activity that smacks of ransomware, on your machine or on a network drive, and give you the ability to stop that attack with no consequences.

This is an easy decision, folks. Go to <http://www.majorgeeks.com>, look at the FILES pane on the left, and click Antimalware. In the list that comes up, select Ransomware Removal and look at Cybereason RansomFree. Read about it and optimally run the video supplied. When you are convinced, download the program, install it and forget it. It will not bother you unless you are attacked or a new version is out. Oh yes, it will stash a bit of code on your desktop and elsewhere, clearly labeled: *!Don't delete me! I'm helping Cybereason hunt for ransomware!*

That is your only cost, so install it and forget it. How is that for an answer to a problem you may not have known existed until it was too late? Happy Computing!

## **KA9EAK QRO – Restoration of the Venerable SB-200**

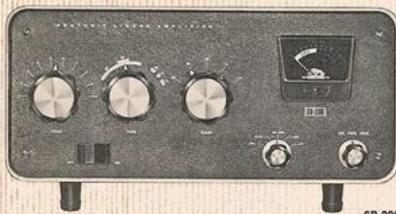
Tim Boppre, KA9EAK



Through the years, I've only ever run a barefoot station. I have typically been able to work a fair number of DX stations, but have always struggled in giant pile-ups with the big iron stations. I know that propagation and timing make up a fair portion of the game but I wanted just a wee bit of an edge for those times when the band is shifty and the competition is relatively intense. Given that old Sol was immune to my pleadings to return us to the peaks of the late '50's, the variables in my control were to improve my antenna situation and/or increase my power output. Given that I recently added a Hustler 4-BTV to my antenna farm, I had improved that variable to some extent over my existing multi-band wire antennas. That left boosting the power so I started my quest for an amplifier. I wasn't interested in spending a lot to get more power so options were limited to used equipment and most likely vintage used equipment. After a fair amount of research, I settled on finding a nice old Heathkit SB-200. These amplifiers were built between 1964 and 1978 and have a very good reputation for reliable performance. Plus there are updates available for them from Harbach Electronics that brings them back to life for many years of continued service.

# Heathkit Deluxe SSB Amateur Gear

And Linear You've Been Waiting For!



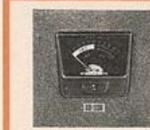
NEW  
HEATHKIT  
RESEARCH



SB-200  
\$200<sup>00</sup>  
Available  
Late August

Heathkit SB-200 Kilowatt Linear Amplifier  
... Latest in this Deluxe SSB Amateur Series!

- 1200 watts P.E.P. SSB—1000 watts CW • 80 through 10 meter band coverage • Built-in SWR meter—Antenna relay—Solid-state power supply • Automatic Load Control (ALC) • Shielded, fan-cooled amplifier compartment • Pre-tuned cathode input circuit for maximum efficiency & low distortion • Circuit-breaker power supply protection—no fuses • Designed for 120/240 volt operation



BUILT-IN PANEL METER

Measures grid current, plate current, relative power output, SWR (standing wave ratio) and high voltage (switch selected) for simple tune-up and maximum operating efficiency.



SOLID-STATE POWER SUPPLY

Long-life silicon rectifiers and high capacity filter assure smooth DC output and excellent dynamic regulation. All parts mount on a heavy-duty circuit board for easy assembly.

my TS-590SG I get 500 W peak output, which is about where I wanted to be. In initial testing the amplifier is performing well and I'm getting improved signal reports.

An SB-200 sold for \$200 in 1964. If you inflate the dollars to today this is about what I have in this amplifier. I essentially purchased approximately one S-unit which is all that I set out to do and I learned a lot along the way which is much more valuable than the S-unit.



# Upcoming Events

**Elections at the January Meeting – Pay your dues (\$15) to vote**

## Wanted and Not Wanted

TenTec Titan 425 Amplifier and power supply – a full 1500 watts - 10 thru 160 meters  
\$1600.00 – contact Ed Rate or Tom Ruhlmann if interested.

## Election of Officers and Nominations for Awards

De Ken Boston ,W9GA



We will have election of officers at the January 11 membership meeting. You must have paid your \$15 dues for 2017 to be eligible to vote. There are other awards available for which you can also cast a private vote.

Following is a list of officer nominees for 2017.

Nominees who are willing to serve as officers in 2017;

President	K9VIN	Kevin Steers
1 <sup>st</sup> V Pres	W9JI	Pat Volkmann
2 <sup>nd</sup> V Pres	KC9REP	Dave Carpenter, Sr.
Repeater V Pres	KC9ONY	Tom Trethewey
Secretary	K9UZ	Ben Evans
Treasurer	N9UNR	Dave Barrow
Treasurer	WA9JOB	Nels Harvey

You will note that there are 2 candidates to pick from for Treasurer this year!! Plus, we will accept nominations from the floor at the January elections meeting. Non-elected officers to be appointed by the new Board include Trustee: AA9W Ed Rate and Past Pres: W9KR Chuck Curran

One of the awards for 2016 is for the outstanding meeting program. Following is a list of the programs given this last year (2016):

Jan	[elections]	
Feb	Basic APRS	KC9ONY Tom
Mar	Slow Scan TV	KA9WRL Bill
Apr	QRP fun	W9JI Pat
May	Field Day History	W9GA Ken & W9XT Gary
Jun	[Field Day Organization]	
Jul	Shack Rebuild	W9KR Chuck
Aug	. Straight Key Night	W9JI Pat
Sep	QSL'ing	W9IPR Tom
Oct	Tribander Installation	WT9Q Vic
Nov	ARES/RACES	KC9YES Naomi
Dec	MARS video	W9JI Pat

Keep in mind, program of the year and the presenter can be nominated for this year's awards. There are other categories like Public Service, Committee, Project, Operator, Contester, Trainer,

Club service, among others that can be nominated. Don't forget, our main awards are for Ham of the Year and Turkey of the Year. These awards are for that individual who, in your opinion, helped ORC with its mission and initiatives during the past year (Ham of the Year) and who made our club gatherings fun and enjoyable. (Turkey of the Year). The Ham of the Year could be someone who has received the award before, while the Turkey of the year is given to any individual only once in his or her lifetime.



## **Ozaukee Radio Club Meeting Minutes**

**December 14, 2016**

Zach Yatso (KC9ZNR), Secretary

Chuck Curran (W9KR), President, called the meeting to order at 1930. Introductions followed.

### **Announcements:**

Gary D. (K9DJT) received his ARRL DXCC Digital award!

Tom R. (W9IPR) informed the club that new ARRL QSL Service Fees became effective in Nov. Outgoing QSL cards now cost \$1.15 per ounce plus a \$7.00 QSL Bureau service fee.

### **Program:**

Pat V. (W9JI) introduced the National Geographic digital short film *Before MARS*, which provides background on two of the lead characters in the upcoming global event series *MARS* and has a heavy Amateur Radio theme. Although the film takes a few liberties, National Geographic also published a companion article "A Guide to HAM Radio". Both the article and short film are available online.

### **50/50 Drawing:**

The 50/50 drawing was held by Kristian (KC9TFP) and the winning ticket was #392.

### **Auction:**

Stan Kaplan (WB9RQR) conducted the auction and numerous items were sold.

### **Officer Reports:**

Chuck Curran (W9KR), President – The annual Awards Banquet will be held Saturday, February 18<sup>th</sup>, at The Hub at Cedar Creek in Cedarburg.

Kevin Steers (K9VIN), 1st VP – No report.

David Carpenter Sr. (KC9REP), 2nd VP – No report.

Tom Trethewey (KC9ONY), Repeater VP – Rebuild of the 2m rack is progressing slowly. No complaints with the 440 or 220 repeaters.

Zach Yatso (KC9ZNR), Secretary – Motion to accept the November minutes was made by Zach Y., seconded by Tom R., and carried without debate.

Dave Barrow (N9UNR), Treasurer – Motion to accept November Treasurer's report was made by Dave B., seconded by Bill H. (KA9WRL), and carried without debate.

### **Committee Reports:**

Dave B. welcomes new member John Jilek, KD9GZY (Extra).

Ken B. (W9GA) is the Nomination Chairman for 2017 ORC elected officers. Officer nominations from the floor will be accepted at the January meeting, followed by election by ballot.

**Old Business:**

None.

**New Business:**

Tom T. (KC9ONY) brought up the service fee charged by PayPal, which is typically covered by the club and cuts into membership dues paid through the service. A discussion of how to mitigate this fee followed. Dave B. (N9UNR) moved to increase the membership dues paid via PayPal by including the extra PayPal fee for online membership/renewal. The motion was seconded by Art D. (AC9CD) and carried with 18 for and 8 opposed.

Tom R. (W9IPR) reminds club members that they have first choice of Scholarship Fund inventory and equipment. A list of available items (and cost) is available on the ORC website.

**Adjournment:**

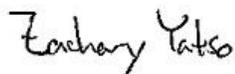
Kristian (KC9TFP) made the motion to adjourn at 2103. The motion was seconded by Stan K. (WB9RQR) and the motion carried.

**Attendance:**

There were 36 members present and 1 guest.

A copy of the attendance sheet is available upon request in PDF format. Please contact Zach Yatso via email at: [kc9znr@arrl.net](mailto:kc9znr@arrl.net) for a copy.

Respectfully submitted,



Zachary Yatso, KC9ZNR  
Secretary

## **AGENDA**

*January 11 th, 2017*

1. 7:00 – 7:30 PM – Network and Rag Chew
2. Call to order: Introductions. Chuck Curran, W9KR
3. Announcements, Bragging Rights, Show & Tell, Upcoming events, etc.
4. Program: Election of Officers
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Chuck Curran, W9KR
9. 1<sup>st</sup> VP Report – Kevin Steers, K9VIN

10. 2<sup>nd</sup> VP Report – David Carpenter, Sr. KC9REP
11. Repeater VP report – Tom Trethewey, KC9ONY
12. Acceptance of Minutes : Zach Yatso, KC9ZNR
13. Treasurer's report – Dave Barrow, N9UNR
14. Committee reports.  
Elections:  
Other:
15. OLD BUSINESS
16. NEW BUSINESS  
Elections:
17. Adjournment.

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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, January 11<sup>th</sup>

7:00 PM – doors open

7:30 – Membership Meeting



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Volume XXIX

February, 2017

Number 2

## From the President

*de Kevin Steers (K9VIN)*

I am excited to take over as president of the Ozaukee Radio Club. I am very grateful to those in the club who have offered their assistance and recommendations as I take on this new responsibility. Feedback is always welcome, and my door is always open! As Chuck W9KR transitioned the responsibilities, I was reminded



of all the unsung volunteers that quietly shoulder many responsibilities for the club. Currently there are 30 appointed positions to chair over 20 committees for the club; from the Audit Committee, to the Sunshine Committee and many in between. While I jumped in with both feet in the journey to the presidency, I propose that some of our younger members review the list of Committee's on our ORC Website. Clicking on the ORC Appointments link at the bottom of the home page, to get a better feeling of where you may be able to pitch in. Hopefully you will find it as insightful as I have.

In The Shack: 160Meters, i.e. the Top Band, has been a goal of mine, and with the help of a neighbor and his very tall tree, I was able to get over 260 feet of wire in the air. My home-brewed Off-Center-Fed Carolina Windom dipole antenna appeared to be the perfect antenna, with an SWR under 2.5, from DC to Daylight. Was it a Christmas miracle? NOPE. It turns out my MFJ259 old-school RF analyzer must have gone through the wringer, and would 'peg' at 2.5 SWR. I found it a easy little project to open it up, make a few minor adjustments to re-calibrate it. Amusingly, my internet search also found out several other things that analyzer can do, which will likely lead me down another rabbit hole. More recently, I logged into a Century Club Net on 160M. This is a net where QSL card exchanges are required. I have been on their 40 and 80 meter nets in the past, so I knew the protocol, and even recognized some of the call signs, as they logged in. Being a newbie to 160M, I did not realize what was about to happen; I was fresh meat on the Net that night. Nearly 20 stations in a row initiated contact with me, which made me a bit panicked. I had technology on my side for once. Earlier that week I stumbled upon HamLog for the iPhone, an App that makes it stupid easy to log contacts, then export/import later. I did not need to click on several fields on my laptop, no fumbling with my

mouse, and this App pre-fills a few fields for each consecutive contact, until you change it. Amusingly, about halfway through the barrage of contacts, one gentleman purposely skipped me to give me a breather, but when my turn came, I was organized enough to initiate the contact with him myself. Slick! Give it a try, it has a call sign lookup feature, and oodles of other features, including contest modes and a field day mode that could (but won't :-)) replace our field day logging approach.

One Last Note: ***Ham Radio Outlet has reached out to let us know that HRO will be having a SuperFest on September 29&30th. Mark your Calendars!***

## **Bill Howe (KA9WRL) SK**



William George Howe (KA9WRL) passed away peacefully, with his loving wife and son by his side, at 12:45 p.m. on Sunday, January 15, 2017, at the Aurora Medical Center in Grafton, Wisconsin.

Born in Macon, Georgia, on September 26, 1943, Bill was raised in Antigo, Wisconsin. As a boy, Bill was active in scouting from Cub Scouts to Boy Scouts to Order of the Arrow and was a member of the local Civil Air Patrol.

After graduation from Antigo High School in 1961, he studied electronics at both Stout State College in Menomonie, Wisconsin, and Wausau Technical Institute in Wausau, Wisconsin.

In 1965, he enlisted in the U.S. Army and served two years in Vietnam, earning the Parachutist Badge, National Defense Service Medal, Vietnam Service Medal, and Vietnam Campaign Medal. He achieved the rank of Sergeant, and, most notably, became a Green Beret and member of the 5th Special Forces Group (Airborne). After honorable discharge from the Army, Bill worked at WSAU-TV in Wausau.

In 1971 Bill started working at WCEE-TV in Rockford, Illinois. Then in 1973, Bill began working at WISN-TV in Milwaukee and in 1979, Bill took a new job at WITI-TV in Milwaukee, where he had a long, successful career as a television director/producer.

Bill enjoyed many hobbies and activities including, collecting toy trains, toy cars, John Deere tractors, and microphones; model railroading; ham radio; electronics; his "records to CDs" business; going to antique shops and garage sales; remote control airplanes and boats; riding motorcycles and scooters; photography and videography; family vacations out west; singing in the church choir; playing with the BLT's band; playing the banjo and ukulele; public speaking; doing crossword puzzles; rooting for the Green Bay Packers; and volunteering his time with the Boy Scouts.

Bill is survived by his wife, Clarice Marie (Bruno); son William Dominic Howe (Monica); granddaughter Lila Ann Howe; two brothers, Rufus (Ruth) and Thomas (Melissa); and two sisters, Mary Scott and Cathy Jane.

He was preceded in death by his parents, S. Scott and Mercedes (Hanneman) Howe; and his brother Robert Weld Howe.

Bill served as President of the Le Frog amateur radio club for several years and is a Past President of the Ozaukee Radio Club. He will be greatly missed as a friend and member of the amateur radio community.

## **Elections and our 2017 Officers**

Kevin Steers (K9VIN), President  
Pat Volkmann (W9JI), First Vice-President  
Dave Carpenter Sr (KC9REP), Second Vice-President  
Tom Trethewey (KC9ONY), Repeater V.P.  
Dave Barrow (N9UNR), Treasurer  
Ben Evans (K9UZ), Secretary  
Ed Rate (AA9W), Club and Repeater Trustee  
Chuck Curran (W9KR), Past President

## **DX'ing & Contesting**

De Gary Sutcliffe (W9XT)



As we progress towards spring you might have noticed that sunrise is getting earlier and sunset later. At the start of February, we are gaining about 3½ extra minutes of daylight each day. That might not seem like much but a week later that will be over 20 minutes of extra daylight.

So, what does that have to do with DXing? Well, if you have a job, there is a good chance that that you have been leaving for work in the morning in the dark and returning home in the dark. You have been missing some good times to be on the low bands.

Often, we have enhanced propagation around sunset or sunrise. The reason for this is due to the D layer in the ionosphere. Most of our HF radio propagation is due to the F layer. Like the F layer, the D layer forms during sunlight periods and dissipates at night. The D layer does not have a lot of effect above about 10 MHz, but has a big effect on lower frequencies.

You probably have the most experience with the effects of the D layer on the AM broadcast band. During the day, the D layer absorbs lower frequency signals and prevents them from reaching the F layer where they can be refracted back to earth at some distance from the transmitter. You only hear local AM stations.

The D layer disappears at night and the signals do get through to the F layer and get propagated long distances. Living around 35 miles from Milwaukee stations, there are times that station in places like St. Louis swamp out the local station I am listening to.

At sunrise and sunset, the D layer is partially ionized. Instead of absorbing signals it refracts the signals, not all the way back to earth but at a lower angle tangent until they hit the F layer and get refracted back to earth. Lowering the angle of radiation reduces the number of hops to a distant location. Each hop attenuates the signal so reducing hops helps.

In recent weeks, there have been some good long path openings to Southeast Asia on 40 meters around sunset. Some of the signals have been incredibly loud. The CQ 160 CW contest was the last weekend of January. We had an excellent opening to Europe in the early evening.

My experience is that this works best at sunrise at the eastern end of the path. Sunrise for us is best when we are working into Japan or the Pacific. Europe is usually best at their sunrise. In the 160 contest, there was very little propagation to our area either for the Saturday or Sunday sunrise.

Speaking of the 160 Meter contest, it was good to put Ray, W9KHH and Vic, WT9Q in the log. Gary, K9DJT, was also on, but I didn't work him.

If you are interested in trying a 160 Meter contest, but don't like CW, you have a chance in February. The phone version of the CQ 160 Meter contest starts at 22:00 UTC (4:00 PM local) on Friday February 24 and runs 48 hours. Most contests start at 00:00 UTC, but 160 meter contests tend to start earlier so that we can take advantage of sunset propagation the first night. We send a signal report and our state for this contest.

The biggest contest this month is the ARRL DX CW contest. It starts at 00:00 February 18 (6:00 PM Friday February 17 local). We work other countries except Canada. We send a signal report and our state. DX send a signal report and power. It is interesting to see how many low power QRP stations you can work. A majority of the stations you work will be running 100 watts, proving you don't need an amplifier to work DX.

This is one of my favorite contests. Last year I did a serious effort and did a low power assisted, all band effort. I managed over 1300 QSOs, which was good enough for #8 in the US. At this point I am leaning towards trying to repeat that, but 10 and 15 meters are much worse than last year as we head towards sunspot minimum.

If you like to chase DX, but CW is not your thing, the ARRL DX Phone weekend is March 4-5 which will probably be before the March newsletter comes out.

There are a few interesting DXpeditions in February. One of the most interesting is to the Central African Republic. The call sign will be TL8TT. It is one of the "Terrible T's", so named because a lot of difficult-to-work African countries have T prefixes. This operation is by a group of Italians. They will have 3 stations and operate 160-6, CW, SSB & RTTY.

Although not a classical Terrible T, TX5T will be activated from Austral Island in the Pacific February 13-March 3. 160-10M, CW, SSB, RTTY.

A really good catch would be Macao which will be on February 13-26 by a large group of German hams. They will be on 80-10M, CW, SSB and RTTY with 3 stations. Macao is tough not just because there is not a lot activity but also because of it being a tough path. The group, who will be using the call XX9D, will have a focus on working North American stations.

A group of American hams will be operating from KG4, Guantanamo Bay February 10-24. Each operator obtained separate KG4 calls. Based on the dates there is a good bet they will be active the ARRL DX contest.

Going to the Caribbean during the ARRL contests is a popular activity. Not only do they get a break from winter, but they get to operate at the DX end in a popular contest. Listen the week before the contest, especially on the WARC bands for them as they get their stations set up. That wraps up things for this month. I hope to see you on the air.

## The Computer Corner

### No. 228: Advanced System Care and others

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



Nels (WA9JOB) sent along his favorite “general health - checkup and fix” program, Advanced System Care 10 (version 10.1.0.692 is the latest and greatest as of late December 2016). Offered by respected software provider IObit, it has a one-click path to clean, speed up, optimize, and protect your computer. On the other hand, it still permits manual tweak of these settings should you prefer. It has tools to tweak the Startup Manager, Resource Manager, settings to Hardware Accelerate, Large Files finder, Surfing Protection, and more. Interestingly, it also has a new section to catch intruders who might be accessing your machine and prying into your privacy with new facial recognition technology.

It removes various online ads and blocks malicious websites for Google Chrome, Mozilla Firefox, and Internet Explorer browsers. It aims to give you a shorter bootup time with optimization of startup, and it claims to secure your privacy by cleaning programs thoroughly. You can read more and download it by accessing this link: <https://tr.im/1z1uy> on the Majorgeeks.com website.

Advanced System Care is one of several excellent (Majorgeeks.com ranks it number two in their list) “suites”. So-called “suites” are several separate programs bundled into an “all-in-one” group that will generally clean and optimize your drive. Some of us prefer the individual programs rather than an all-in-one. For example, I personally prefer to clean my machines with CCleaner rather than invoking a whole suite and selecting the clean function (program) contained within. Others prefers the other way of doing it, and that is just fine, too. Vive la différence! Anyway, Majorgeeks.com ranks these major cleaners this way:

1. Simple System Tweaker.
2. Advanced System Care.
3. Wise Care 365.
4. Glary Utilities.

There are others, too, that you can peruse by going to the Majorgeeks.com website (<http://www.majorgeeks.com/>). As an aside, if you have never been there, you really should peruse the site. It is the ONLY safe site for software (mostly free but some shareware and pay-for, as well). They check all their software for malware. Moreover, they also check the software to see if it really does what it claims to do, at least to some degree. I think these guys are an international treasure and deserve to be encouraged and sustained. There is nothing else like them on the planet! Amazingly, the site is free to use by anyone who wants to. They ask no fee, no email address, no information of any kind for using their data. Happy computing!



# Ozaukee Radio Club Meeting Minutes

**January 11, 2017 by Zach Yatso (KC9ZNR), Secretary**

Chuck Curran (W9KR), President, called the meeting to order at 1928. Introductions followed.

**Announcements:** Gary D. (K9DJT) won the WI RTTY Roundup. Matthew (Bob's son) passed his Technicians exam.

**Program:** No program was held this month.

**50/50 Drawing:** No 50/50 drawing was held this month.

**Auction:** No auction was held this month.

**Officer Reports:** Chuck Curran (W9KR), President – Thanks to all members for their support this past year. Also a reminder that the Annual Awards Banquet is coming up on Saturday, February 18th, at The Hub at Cedar Creek in Cedarburg.

Kevin Steers (K9VIN), 1st VP – No report.

David Carpenter Sr. (KC9REP), 2nd VP – No report.

Tom Trethewey (KC9ONY), Repeater VP – Lauren and amp; Tom still rebuilding, and there are some voter noise issues.

Zach Yatso (KC9ZNR), Secretary – A correction to last month's minutes: David Carpenter Sr.'s officer report was listed as No report more accurately he should have been listed as Not Present.

Motion to accept the December minutes as corrected was made by Jim A. (K9QLP), seconded by Ken B. (W9GA), and carried without debate.

Dave Barrow (N9UNR), Treasurer – Motion to accept December Treasurer's report was made by Dave B., seconded by Stan K. (WB9RQR), and carried without debate.

**Committee Reports:** Ken B. (W9GA) has started selections of awards and prizes for attendees of the Awards Banquet.

**Old Business:** None.

## **New Business:**

Election for 2017 Officers: 2017 ballots included Kevin Steers (K9VIN) for President, Pat Volkmann (W9JI) for 1st Vice President, Dave Carpenter, Sr. (KC9REP) for 2nd Vice President, Tom Trethewey (KC9ONY) for Repeater Vice President, Dave Barrow (N9UNR) and Nels Harvey (WA9JOB) for Treasurer, and Ben Evans (K9UZ) for Secretary. There were no nominations from the floor. After voting, ballots were immediately counted and Dave Barrow was elected Treasurer. All other positions were uncontested.

ARRL provides club liability insurance, which is required for club use of numerous facilities. A committee will be comparing the club's current policy with

that offered through ARRL and will report their findings.

The Yahoo remailer was discussed and numerous alternative options proposed to facilitate general club communications (ORC announcements, Treasurer's report, meeting minutes, etc.). A committee will be formed for further investigation.

**Adjournment:** Nels H. (WA9JOB) made the motion to adjourn at 2031. The motion was seconded by Todd F. (N9DRY) and the motion carried.

**Attendance:** There were 20 members present and no guests. A copy of the attendance sheet is available upon request in PDF format. Please contact Zach Yatso via email at: [kc9znr@arrl.net](mailto:kc9znr@arrl.net) for a copy.

**Respectfully submitted, Zachary Yatso**

## **AGENDA**

*February 8, 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:
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Kevin Steers (K9VIN)
9. 1<sup>st</sup> VP Report – Pat Volkman (W9JR)
10. 2<sup>nd</sup> VP Report – David Carpenter, Sr. (KC9REP)
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. Spring Swapfest
  - B. Other:
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizza

▪

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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, February 8<sup>th</sup> 2017

7:00 p.m. – doors open

7:30 p.m. – Membership Meeting



# 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: [www.ozaukeeradioclub.org](http://www.ozaukeeradioclub.org) Facebook: [facebook.com/orcwi](https://facebook.com/orcwi)

Volume XXIX

March, 2017

Number 3

## From the President

*de Kevin Steers (K9VIN)*



Thank you to everyone who went easy on me at my first meeting in February. It was refreshing to see such a great turnout, and I hope that the email reminders help to keep attendance up! As a reminder, it takes many volunteers to keep our club running, and we are currently in need of a 2018 Spring Swapfest chairman, who would shadow Loren Jentz during this May's event, in prep for the following spring. Additionally we are looking for a volunteer to take over the Club Trustee position, maintaining our club's 501c3 status. There are a number of

individuals who support these two roles, so please consider getting involved to continue our club's track record!

Thanks to Gary Sutcliff's W9XT contesting article last month, I remembered to participate in the recent 160M SSB contest. With just light operating over Friday and Saturday evening, I could add over 25 new states to my contact list for 160M. The band seemed very quiet to me, and it was exciting making oodles of contacts without any uncomfortable small-talk. With my HamLog app, call sign look-ups and logging contacts was simple with only my iPhone and no true internet connection. YaY.

On the Bench: Some time ago I came across an old-school KLM 2-meter Yagi antenna. It is a log-periodic type, over 12 feet long, with four driven elements to keep it resonant across the entire band. It came with the original build instructions

and hardware list, but was missing the hardware itself. After spending ~\$20 at the hardware store, I was in business. I intend to try 2-meter simplex, plus work repeaters in remote northern Wisconsin with it, or possibly working maritime mobile with it from my pontoon, for a hoot. When discussing the antenna with Tom Ruhlmann W9IPR, a while back, he marveled at why a person would design the antenna to be resonant across the entire band, since one end of the band is vertically polarized, and the other end of the band is horizontally polarized. Which now gives me something to go research and understand?

## **DX'ing & Contesting**

De Gary Sutcliffe (W9XT)



One thrill a lot of hams never get is to be on the busy end of a pile up. Rare DX stations have it all the time as DXers try to add one new country to their DXCC totals, or maybe fill in a new band country.

Some hams spend tens of thousands of dollars to travel to some remote island to experience this for a week or so as part of a DXpedition. Contesters love a pile up on themselves because it means

they are making a lot of contacts and thus are racking up a big score.

Other than a summer in Senegal (West Africa) while part of a scientific project in college, my pileups tend to be short lived. During contests, I can occasionally get an hour with 100-120 contacts during big contests. Once I did about 250 contacts during an ARRL 10 Meter Contest during a Sporadic E opening.

So how does a ham with an average station from Wisconsin get a good stream of callers? The key is to be wanted for a QSO. The best chance for that happens in March. We are of course talking about the Wisconsin QSO Party. It is the world working Wisconsin, so they will be looking for us.

Sponsored by the West Allis Radio Amateur Club, this year's running starts Sunday March 12 at 1:00 pm local and runs for 7 hours. Note that we change to Daylight Savings Time that weekend so be sure to update your clocks.

For Wisconsin stations, the goal is to work many stations everywhere. The rest of the world just works Wisconsin. That means they are looking specifically

for us. There are a surprising number of out of state hams that operate this one seriously. Some are working on the Worked All Counties award. Some are former Wisconsin residents looking to connect with old friends. In the 1990's I would almost always work some guy out on a Pacific Island. His wife was from the Badger State. Some just get on because it is one of the best state QSO parties out there.

Multipliers are Wisconsin counties, US states and Canadian provinces. One thing that makes this fun is to track the mobile stations. They will go from county to county and you can work them again each time they arrive at a new one. A lot of the rarer counties are only activated by mobile stations so it pays to keep an eye out for them.

The exchange is your county. Stations out of the state will send their state, province, or country. Signal report is optional. CW contacts are worth 2 points, and phone contacts are worth 1 point. You can work a station once on CW and once on phone on each band. As mentioned earlier, mobiles get reset at each new county

Your score is based on power levels, QSO points, multipliers, and bonus points. It is best to check the rules to make sure you get everything right: <https://www.warac.org/wqp/wqp.htm> You should also get the list of state counties and their abbreviations at the site. Some like Washington and Washburn can be tricky. While you won't work 300 stations per hour in the WiQP, you can get some nice runs going if you pick your spots right.

Other contests this month include the ARRL DX Phone contest on March 4-5. That was discussed in last month's column. Conditions for the CW running a couple of weeks ago, were not great but there was a lot of activity. I managed to work over 1100 contacts running 100 watts.

The other big contest is the CQ WW WPX SSB contest. That runs from 0000 UTC March 25 and runs for 48 hours. Single ops can only operate 36 hours. Basically, you work anyone you can. The multipliers are the call sign prefix. Having a W9 call, I'm nothing special, but guys like ORC member Vic, WT9Q, are popular.

The exchange is the signal report and a serial number. QSO points vary depending if they are the same country, a different country in the continent or

on a different continent. There is also a difference depending on the band. Contacts on the low bands are worth more.

Because you can work anyone, you can get a lot of contacts in this one. Rules are available at <http://www.cqwp.com/rules.htm>.

There is a surprising number of interesting DXpeditions scheduled for March. The Maldives in the Indian Ocean will be activated by a group of German hams on March 2-9. They will be operating CW, SSB and digital on 80-10 meters with the call sign 8Q7LH.

A group of primarily British ops will be on from Ghana using 9G5X, March 7-21. They will have 3 high power stations on 160-10M, CW, SSB and RTTY. Overlapping much of the Ghana DXpedition, an international group including ops from Spain, Italy, France, Columbia, and the US will fire up another African country, Niger. That is March 9-21. 5U5R will be on 160-10, SSB, CW & RTTY. They are also planning on doing some operating on the 60M band.

If that is not enough RF coming from Africa, a 12-op team will be active from Ivory Coast using TU7C with 5 stations, 160-6m, CS, SSB, RTTY and PSK. The dates are March 9-21.

A good catch from this part of the world will also be active in March. A group of about a dozen Irish hams will be on March 8-20 from Nepal using 9N7EI. They will run 5 stations on 80-10, SSB, CW and Digital.

Another deep Asian country on the air will be S21GM from Bangladesh on March 15-21, 160-10M, CW, SSB, RTTY.

Albania used to be extremely rare for a long time because ham radio was banned in the country for years. Back in 1991 a group of hams mostly from Europe opened up the country. They were there for weeks and trained a lot of local hams. For a while ZA contacts became fairly common. In recent years, they have not been so plentiful. A group of Dutch hams will be operating there from March 22-19. Part of the effort will be focused on the WPX contest.

That wraps up March. See you on the air.

## **The Computer Corner**

## No. 229: Symbols in Text Files

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



Well now, here is something different! Sometimes one needs to create or edit a simple text file, like those created by Notepad or other text editors, but not a word processing file like those created by Microsoft Word. Yet, one would like to include a special symbol of some sort in the plain text file. Well you can easily do it.

Start a test of this ability by clicking your desktop somewhere (not near an existing icon), and selecting NEW, then TEXT FILE. Then open the new text file, which will be blank at this point. Put your cursor at the beginning of the file and click it. Then press and hold the ALT key and type

a number shown in one of the boxes in the table below, then let go of the keys. The symbol will appear. As an example, if you press and hold the alt key and then type the number 12, the scientific symbol for female (Venus symbol, ♀) will appear. Similarly, press and hold the alt key and the number 11, when you let go, the scientific symbol for male (Mars symbol, ♂) will appear.

Be sure to use the keypad on your desktop keyboard, or it will not work. For laptops, you may have to invoke a keypad first. Experiment.

This is not an exclusive list, so experiment yourself with other numbers to reveal other symbols.

1 ☺	2 ☹	3 ♥	4 ♦	5 ♣	6 ♠	7 •
8 ◼	9 ○	10 ◻	11 ♂	12 ♀	13 ♪	14 🎵
15 ☀	16 ▶	17 ◀	18 ↕	19 !!	20 ¶	21 §
22 —	23 ↓	24 ↑	25 ↓	26 →	27 ←	28 ⊥
29 ↔	30 ▲	31 ▼	33 !	127 △	128 Ç	129 ü
130 é	251 √					

**Happy computing!**

## Upcoming Events

This is to inform you that the next ORC meeting on Wednesday, March 8<sup>th</sup> will NOT be held at the Grafton Senior Center. It will instead be at the Robert P. Zaun Pavilion in Lime Kiln Park at 2020 S. Green Bay Road in Grafton. The meeting will start at 7:30 PM as usual. The doors will be opened by 7:00 PM. Click the following link for a map:  
<https://www.google.com/maps/place/2020+Green+Bay+Rd,+Grafton,+WI+53024/>

The change in location is because the floor of the room we meet in at the Senior Center is going to be waxed on or around that day. The room in the center's basement is unavailable due to a conflicting activity taking place there. Grafton Parks & Recreation has put us up in the banquet room of the Zaun Pavilion which should accommodate us quite nicely. There are tables and chairs for up to 72 people and plenty of parking. You can check out the facility for yourself online by going to this site -<http://www.village.grafton.wi.us/264/Robert-P-Zaun-Pavilion>

See you on March 8<sup>th</sup> at 7:30 PM at the Pavilion at Lime Kiln Park.

73s, Ben Evans, K9UZ  
ORC Secretary

The Ozaukee County Division of Emergency Management is holding its annual Weather Safety and Weather Spotter Training Class on Wednesday, March 22<sup>nd</sup> at 6:30 PM (check-in at 6). The presentation is 2 ½ to 3 hours long, depending on the number of questions.

The class will be held in the Ozaukee County Pavilion (north side of the building) at the Ozaukee County Fairgrounds, W67 N890 Washington Avenue, Cedarburg, WI. Click this link for a map: <https://goo.gl/maps/gfzABPcVJut>

There is no need to pre-register and the class is free.

The presentation is given by the staff from the National Weather Service Milwaukee/Sullivan office and a few experts from other agencies.

In the first hour, there will be a Severe Weather Safety training presentation. In the second hour will be the Spotter training class which covers what spotters need to know to identify storm features and how to report to the NWS. There will be a 10 to 15 minute break midway through.

If you go, have a good class!

73s,

Ben Evans, K9UZ

# This Month in ORC History: 35 Years Ago

Edited by Ben Evans, K9UZ

(The following is an edited version of the minutes from the ORC meeting on March 10, 1982.)

REPEATER MEETING convened by KA9DDN at 7:07 PM. Opening balance, \$613.68. Purchase of IC-30 receiver, \$206.96. Wisconsin Association of Repeater dues, \$20.00; savings account, \$86.10. Final balance, \$472.82.

The 911 access trouble has been cleared. Some thought should be given to adding additional code character information to the repeater ID to alert users to various non-normal conditions. Comments and suggestions are welcome. Query by WA9AWO concerning repeater carrier dropouts. Skip (KA9DDN) thinks this may be due to a false response to some tones. The new audio board is expected to eliminate this problem, plus the problem of single digit dump that someone has been using to annoy repeater users. [Repeater] meeting terminated at 7:11 PM.

REGULAR MEETING opened at 9:13 PM by WD9FQW. Minutes of previous meeting accepted as presented in the Newsletter. Treasurer's report presented by KA9HJR: RECEIPTS - 1982 dues, \$75.00; refreshment kitty, \$18.64; Swapfest, \$5.00; total, \$98.64. DISBURSEMENTS - February refreshments, \$23.53; Newsletter, \$4.68; Post-Everything Party, \$372.90; Swapfest reservation deposit (Circle B) for 1983, \$125; total, \$526.11. ASSETS - Checking account, \$168.57; savings account, \$1079.68; 81 patches @ \$0.75 = \$60.75. Starting balance: \$1736.47. [FINAL] BALANCE - \$1309.00. Treasurer' report accepted as read.

Query by treasurer as to whether spouses were included in motion to pay for DINNERS OF TOWER CLIMBERS. Motion in minutes of the December 1981 meeting made no mention of spouses (W9WQ). Report by WB9SFK on SWAPFEST PROGRESS: he will call a meeting, at his home, of committee chairmen and other interested parties in the near future. Information will be disseminated on the club net frequencies. POST EVERYTHING PARTY REPORT: WB9PAS not present, so no report was given.

Brief discussion on setting up a CLUB STATION. Site? Ralph Evans, WA9UDZ, will assume position of TRUSTEE, replacing Bob Truscott, W9LO, who is moving away from the area. W9CQO will be used as the CLUB STATION CALL and REPEATER ID when licenses are renewed in the near future. WA9USA has submitted names of 11 club members to Madison for certification as RACES OPERATORS. Decision on RACES RENEWALS will be a county responsibility. WA9AWO is leaving the area and has asked WB9RQR to assume the duties of NEWSLETTER EDITOR, so future submissions should be sent to Stan. WD9FQW made a statement expressing GRATITUDE to TERRY and ANN BERG for their manifold contributions to the club. Motion to adjourn was seconded and carried at 9:45 PM

E.J. Bauer, W9WQ, Secretary



# Ozaukee Radio Club Meeting Minutes

Ben Evans (K9UZ), Secretary

Kevin S. (K9VIN), President, called the meeting to order at 7:28 PM. Introductions of the attendees followed.

## **Announcements:**

Art D. (AC9CD) - Ozaukee County Emergency Management is offering a free class on weather safety and weather spotting on Wednesday, March 22<sup>nd</sup> at 6:30 PM (check-in at 6). The location is the Ozaukee County Pavilion (North end) at the Ozaukee County Fairgrounds, W67 N890 Washington Avenue, Cedarburg. There is no need to pre-register for the class.

Nels H. (WA9JOB) announced that he bought a QYT quad band transceiver and successfully got it programmed.

Gary D. (K9DJT) announced he made contact with operators in 15 countries during the recent 160-meter worldwide CW contest, bringing his total international contacts to 123 countries.

Zach Y. (KC9ZNR) – Loaner laptops are still available to members.

Ted H. (N9LLT) discussed Railroad Net, a forum for train enthusiasts, which Ted runs on the K9QLP repeater, and is also available via his node on Echolink. The net is on every Monday at 8:00 PM, except it goes on hiatus between Memorial Day and Labor Day.

## **Program:**

Chuck C. (W9KR) gave a presentation on changing the high voltage wiring on a 1950s Collins KWS-1 transmitter.

## **50/50 Drawing:**

There was no 50/50 drawing.

## **Auction:**

Stan Kaplan (WB9RQR) conducted the auction and numerous items were sold.

## **Officer Reports:**

Kevin S. (K9VIN), President – A volunteer is needed to plan Swapfests because this year's Spring Swapfest will be Loren J.'s (N9ENR) last one as organizer.

Awards Banquet – Chuck Curran (W9KR) reports that only 21 members and spouses have signed up. At least 30 sign-ups were needed in order to make the event viable. Therefore, there is no other choice but to cancel the event. Refunds will be issued to the 21 that signed up. Discussion followed as to what to do about the awards ceremony going forward, either rolling it into a regularly scheduled meeting with snacks and beverages, or having it at a place such as Galioto's Italian Restaurant in Cedarburg.

Pat Volkmann (W9JI), 1st VP – Would like to put together an inventory of club property, which exists at various locations. If any members are in possession of club property, they should inform Pat. Jim A. (K9QLP) commented that once the inventory is completed, both the Treasurer and the Secretary should have a copy of the list.

David Carpenter Sr. (KC9REP), 2nd VP – Dave C. was not in attendance, so there was no 2nd VP report.

Tom Trethewey (KC9ONY), Repeater VP – Rebuild of the 2-meter rack is progressing slowly.

Ben Evans (K9UZ), Secretary – The minutes from January’s meeting is in the newsletter. Motion to accept the January minutes as written was made by Dave B. (N9UNR), which was seconded and passed without debate.

Dave Barrow (N9UNR), Treasurer – Motion to accept January’s Income and Expense Report subject to audit was made by Dave B., seconded and carried without debate.

**Committee Reports:**

Audit Committee, Jim Albrinck (K9QLP) – An audit was conducted on the club’s funds and everything is in good order.

**Old Business:**

None.

**New Business:**

Nels (WA9JOB) reports that the 146.97 repeater antenna needs to be replaced. People are having trouble getting in. Nels made a motion for the club to buy a new antenna with a cost up to \$1,200. There is money in the improvement fund for the new antenna and for the tower climbing. The motion was seconded by Jim A. (K9QLP) and passed without debate.

**Adjournment:**

A motion to adjourn was made, seconded and passed. The meeting was adjourned at 9:06 PM

**Attendance:**

There were 39 members and two 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

## **AGENDA**

*March 8, 2017*

1. 7:00 – 7:30 PM – Networking and Rag Chew
2. Call to order: Introductions. Kevin Steers (K9VIN)
3. Announcements, Bragging Rights, Show & Tell, Upcoming events, etc.
4. Program: W9JI on SDAs
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Kevin Steers (K9VIN)
9. 1<sup>st</sup> VP Report – Pat Volkman (W9JI)
10. 2<sup>nd</sup> VP Report – David Carpenter, Sr. (KC9REP)
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. Spring Swapfest
  - B. Other:
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizza in Grafton

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**The ORC Newsletter**  
465 Beechwood Drive  
Cedarburg WI\* 53012

**First Class**

Next ORC Meeting

**Zaun Pavillion in Lime Kiln Park**

**See upcoming events, this issue**

Wednesday, March 8<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



# 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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Volume XXIX

April, 2017

Number 4

## From the President

*de Kevin Steers (K9VIN)*



Welcome to Spring 2017! Well that is what my calendar told me. It still feels like Antenna weather to me, though.

With Dayton right around the corner, now is a fine time to do extra chores around the house, and the such, before gently reminding your spouse that you had hoped to continue this Amateur Radio Tradition. I started going to Dayton in 2015, to rendezvous with a high-school friend who now lives in Traverse City Mi. It is a good group of guys and I try to keep expenses to a minimum, so my wife is not put off by my request to return. The new venue this year is exciting for some, but an unwelcome change for others. I am hopeful that this new location will be a much-needed improvement. Dayton Hamvention is May 19-21. I am hopeful to see Ed Frac there this year, but with our Ozaukee club taking a pass this year, I am not so sure.

### On the Bench:

Speaking of antenna weather, I am really hoping to get many tasks accomplished in the coming weeks. I need to mount the 2meter Yagi, that I mentioned in last month's newsletter, pointed towards Traverse City MI to satisfy my curiosity if I can reach their repeater from Crandon WI. I also have a 2meter vertical that I bought used and have nearly completed rebuilding. I am just waiting on a few replacement parts to finish, and then up the tower we go. Lastly, I am battling with a rotor that worked on the bench, but once installed, just won't budge. I am sure I have the wiring askew, and I would rather not have to bring it down to trouble shoot; but so it goes. (No Chuck, I am not using the rotator for the Vertical!)

I noted in a recent QST magazine that the ARRL's National Parks on the Air (NPOTA) was a blazing success. I think it was a brilliant idea, and really raised awareness to the myriad of National Parks both near and far, and to Amateur Radio, to boot. If you participated, even a little, in NPOTA, please consider giving a short presentation at a meeting. You could use the QST article as a very good source. I had considered getting into the year-long event, but was not

currently on Logbook of the World. So now I head off to try to demystify the process of getting Logbook of the World activated. And now that I told you that, it may just get done! 73 Kevin

## DX'ing & Contesting

De Gary Sutcliffe (W9XT)



If you operate HF, keeping track of the number of states and countries is just a natural thing. Hams started doing this as soon as they could make contacts outside their back yards. Before WWII hams kept count of the number of DX countries they worked unofficially. After WWII, the ARRL started the DXCC program. To get the basic award you had to work and confirm 100 different countries. To this date, it remains the most popular DX award.

So, what is a country? At first glance it seems simple, but after some digging there are some gray areas. The ARRL came up with some requirements to what conditions must be met

for a “country” to count for DXCC. You end up with Hawaii, Alaska and Puerto Rico being DXCC countries. Actually, the ARRL does not call them countries, but “entities”.

On March 31, the ARRL dropped a bombshell on the DX committee by announcing that DXCC entities Kure and Wake Islands were being deleted from the DXCC list. The magnitude and timing of this caused many to think it was an April fool’s joke, but it wasn’t.

Countries are added and deleted over time for various reasons, mostly political ones. Before East and West Germany were united, they counted as separate countries. When they were united the old Germanys were deleted and a new one formed. When Czechoslovakia split into the Czech and Slovak Republics the old country was deleted and two new ones formed. The US controlled Canal Zone in Panama was a country until it was turned over to Panama in 1979. At other times rule changes cause some countries to be deleted and other times an island suddenly meets the criteria.

DXers have two DXCC totals they keep track of, the current country totals and total countries. Before the Kure/Wake deletions there were 339 current countries on the DXCC list. That will go down to 337. DXers also track total countries including deleted ones. So, my DXCC totals will be 337/351. The old timers at the top have around 390 including deleted countries. Longevity is a key to making it to the top.

There are several criteria the ARRL uses to determine if a body of land counts as a new entity. One is the distance from the mainland. Alaska and Hawaii fall under this rule. Others can be created because of different administrations. Some islands claimed by the US in the Caribbean and Pacific are managed by the US Fish and Wildlife Service which gives them country status.

The recent deletions are due to Wake Island being changed to being administrated by The Papahānaumokuākea Marine National Monument by President Obama in 2016. This region includes part of the Hawaiian Islands so Wake loses its different administration condition. Kure

could be listed because of an intervening DXCC entity. For Kure, that was Wake Island which no longer can provide that.

Another end of March development was the FCC announcement of two new ham bands. Hams will be able to use the 630 Meter band (472-479 KHz) and the 2,200 Meter band (135.7-137.8 KHz). The power limits are 1 watt EIRP for 2,200 M, and 5 W for 630 M. This has been expected for some time since they were ratified for ham allocation at the 2012 WARC conference. Several countries already have access.

Some hams have been operating on the 630 Meter band for several years with special experimental licenses. The results have been interesting, especially with digital modes that can pull weak signals out of the noise.

Getting on these bands will be a challenge. First, the antennas are not practical. If you think putting up a 160 Meter antenna is a problem on your city lot, consider one for 2,200 Meters! I was kind of surprised in the antenna restrictions for these bands. There is a license free band around 160KHz that some experimenters, mostly hams, are using. There requirements are a maximum of 1 watt and an antenna less than 15 meters long, including feed lines and radials. The new ham bands have no length restrictions but the maximum height is 60 meters (just under 200'). I had expected more restrictions.

Well, antennas are a problem, but generating power at under 0.5 MHz should not be a problem, right? Well, sort of. Generating the power is not so much of a problem, but coupling it efficiently into an extremely short (electrically anyway) is a problem. Some of the experimental stations use amplifiers running several hundred watts to get to a few EIRP watts. The effective dates have not yet been announced, but expect it to happen in the next few months. Who will be the first ORC member to make a QSO on one of these bands?

April is a quiet month for contests. There are a number of state QSO parties, some QRP events, etc. as usual. The only ARRL contest is the Rookie Roundup (SSB). This runs from 1800 UTC (1:00 PM local) April 19 and runs for only 6 hours. Everyone works rookies, defined as making your first QSO in 2015 or later. Rules can be found at <http://www.arrl.org/rookie-roundup>

There is a little more DXpedition activity in April. The Seychelles in the Indian Ocean should be on the air by the time you read this. S79Z will be activated by a group of Czech hams. The planned dates are April 6-18. Look for them on 160-0M, CW & SSB.

The southwestern African country of Botswana will be on April 25-May 6 by a group of English hams. They plan to have up to 5 stations on the air from 160-6M, CW, SSB, and RTTY using the call A25UK.

South Cook will be activated by a trio of US hams April 28-May 13. Each will have a separate E51 call sign. They plan on being on 160-10m, SSB.

So, April will be a quiet month on the radio. With the warmer weather and no major contests, maybe it is a good time to start planning your 630 or 2,200 Meter station!

# THE COMPUTER CORNER

## No. 230: Patches and Updates

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



This month we have a guest editor. He is none other than Todd Fast, N9DRY, one of our ORC members. Todd came across the following information that applies to Windows 7 and 8, and passed it on to me at our last post-meeting pizza klatch. Thanks, Todd! We have added occasional words in brackets to increase clarity.

Microsoft pushed patches to devices running Windows 7 and 8.1 in recent time that collect information and transfer data to Microsoft regularly.

One of the main issues that Windows users may have with [this] telemetry is

that Microsoft does not reveal what it is collecting, and what is included when telemetry data is transferred to the company.

The following tutorial provides suggestions on limiting Windows data collecting and transferring. There is no guarantee that nothing is collected and/or submitted after making privacy related changes to the operating system, but a guarantee [is made] that data collecting [by Microsoft] is severely limited at the very least.

-----  
The following Windows updates are related to telemetry and diagnostic data.

KB971033 Description of the update for Windows Activation Technologies.  
KB2952664 Compatibility update for keeping Windows up-to-date in Windows 7.  
KB2976978 Compatibility update for keeping Windows up-to-date in Windows 8.1 and 8.  
KB2990214 Update that enables you to upgrade from Windows 7 to a later version of Windows.  
KB3021917 Update to Windows 7 SP1 for performance improvements.  
KB3022345 Update for customer experience and diagnostic telemetry.

KB3044374 Update that enables you to upgrade from Windows 8.1 to Windows 10.  
KB3068708 Update for customer experience and diagnostic telemetry.  
KB3075249 Update that adds telemetry points to consent.exe in Windows 8.1 and Windows 7.  
KB3080149 Update for customer experience and diagnostic telemetry.  
KB3123862 Updated capabilities to upgrade Windows 8.1 and Windows 7.

You can remove any of the patches [by using the following two steps]:

1. Tap on the Windows key, type Windows Update, and hit the Enter key.
2. Select Installed Updates on the window that opens. Right-click on the updates [that you wish to remove] and select uninstall to remove them from the system.

My source for the Windows telemetry information was several threads in the Microsoft forum on dslreports.com (or broadbandreports.com, same site). I also subscribe to a number of IT and communications trade journals; their weekly emails provide more info yet.

<https://www.dslreports.com>

<https://www.dslreports.com/forum/microsoft~days=180~start=20>

I have been registered on this site since 2001 and have never received spam or other unwanted crap traceable to the site. I monitor about 20 forums on a variety of subjects and rarely do I not at least see what new items are in each of those forums daily. They even have forums on electronics and on ham radio. **Happy computing!**

## The Wisconsin QSO Party: Total Bust!!!

De Gary Drasch (K9DJT)



The Wisconsin QSO Party was coming up on Sunday, March 12<sup>th</sup>, and I thought I'd activate Forest County by operating from my cabin just south of Armstrong Creek. There are only a few Technician class licensees and I think one Extra class in the county. That makes for a much-desired Q during the contest.

I arrived at my cabin at half-past noon on Friday and immediately started a fire in the wood burner; my only source of heat other than the dog. It was 10 degrees outside and 24 inside; much colder than I expected for March. That night it dropped to -2 which didn't help matters. It first got up to 60 degrees inside the next morning and to 65 on Sunday. Things were looking up. I set my rig up on Saturday and checked into Mid-cars and worked N4WIS, the USS Wisconsin. Later that afternoon, I tried working some DX and after a short time my SWR shot through the roof. I'm thinking "what the hell"? I knew I had a splice in my coax outside, a pair of PL-259s and a barrel connector, which was installed and taped up about five years ago. I found it and started removing the tape in the 10-degree temperature. Normally the dog loves running around in the woods, but I noticed she was sitting at the door wanting to go back inside. After getting past the tape and to the connector, I discovered water had gotten into it, froze, and actually broke the PL-259 screw-on the cap. I have no idea how I had made any Q's at all.

Of course, I didn't have any spare connectors with me but then remembered I had an unused coax in my vehicle which I periodically use for HF when traveling. I went out, cut it off and brought inside the cabin. I then de-soldered the stub of coax and cleaned the connector up. (I did have tools, including a soldering gun and solder with me.) I was now ready. I ran an extension cord outside to a point where I could reach the coax, and replaced the connector. It was getting dark and the temperature was dropping. I promptly wrapped it up with Scotch 33+, and while doing it, I remembered the original tape job I had done was not with a quality tape. It was some cheap crap which I happened to have in the tool box at the time. Lesson learned! I was back in business, problem fixed! Made a few contacts, warmed my hands, and made some dinner.

The next morning, I split enough wood to last me through the contest. (Manually splitting wood is another story!) I came back inside; made something to eat for lunch and sat down by the

radio. There was some DX around and I thought I'd give it try. My 100 watts and OCF dipole just wasn't cutting it in the pile up though. I did a lot of calling with no results. And then it happened; 30 minutes before the contest was to start, the SWR shot through the roof again! And I said, "Oh darn!" Then again, I may have said something else. At that point I was done. I didn't even bother to figure out what was wrong. For a moment. I even thought of kicking the dog, but instead, I disassembled everything, packed up all my equipment, drained the plumbing and headed for home. So much for activating Forest County! The moral of the story is one, don't splice coax outside, and two, if you do, use quality tape and connectors. Needless to say, the cabin antenna will have a major overhaul this spring...hopefully while being a little bit warmer. If nothing else, I feel better now by sharing my frustration with all of you. It's now off my chest. For whatever reason, the XYL and dog just didn't understand.

## April Meeting Program

Randy Timms, KB9JMH: VIPER RIDE – Visually Impaired Patriots Experiencing the Road

## Ozaukee Radio Club Meeting Minutes

By Ben Evens (K9UZ), Secretary

Kevin S. (K9VIN), President, called the meeting to order at 7:30 PM. Introductions of the attendees followed.

### Announcements:

Vic S. (WT9Q) showed his ORC jacket to the group, with his old call sign crossed off and his new call sign, both by embroidering.

### Program:

Pat V. (W9JI) gave a presentation on Software Defined Radio using a USB TV receiver.

### Auction:

There was no auction.

### Awards:

The ORC Annual Awards were presented as follows:

Meeting Program of the Year – Vic Shier, WT9Q  
Contester of the Year – Vic Shier, WT9Q  
Operator of the Year – Gary Drasch, K9DJT  
Presidential Award – Bill Howe, KA9WRL (posthumous)  
Turkey of the Year – Zach Yatso, KC9ZNR (not present)  
Ham of the Year – Loren Jentz, N9ENR (not present)

### Officer Reports:

Kevin S. (K9VIN), President – A volunteer is still needed to take the place of Loren (N9ENR) as next year's Spring Swapfest organizer. We are also looking for someone to take the Club Trustee position vacated by Ed R. (AA9W).

1st VP – No report.

2nd VP – No report.

Tom T. (KC9ONY), Repeater VP – There is a promising lead on a new antenna for the .97 repeater that would cost nothing. Tom and Nels H. (WA9JOB) have looked at it.

**Committee Reports:** None.

**Secretaries Report:**

Ben E. (K9UZ), Secretary – The minutes from February’s meeting is in the newsletter. Motion to accept the minutes as written was made by Dave B. (N9UNR), which was seconded by Chuck C. (W9KR) and passed without debate.

**Treasurer’s Report:**

Dave B. (N9UNR), Treasurer – Motion to accept February’s Income and Expense Report was made by Nancy S. (KC9FZK), seconded, and carried without debate.

**Old Business:** None.

**New Business:**

Tom T. (KC9ONY) – A balloon launch will be taking place this Saturday, March 11<sup>th</sup> in Richland Center, although the weather is uncertain. Members are invited to participate in the balloon chase.

**50/50 Drawing:**

Todd F. (N9DRY) was the winner of the 50/50 drawing.

**Adjournment:**

A motion to adjourn was made by Stan (WB9RQR), seconded by Dave B. (N9UNR) and passed. The meeting was adjourned at about 8:40 PM.

**Attendance:**

There were 33 members and one guest 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

# So, what have I been doing in Florida?

De Tom Ruhlmann (W9IPR)

Pat and I have been coming to Florida for the past 9 years and I know some of you think it is because it is warm during January, February and March. However, we come to volunteer at "sun-n-fun" which does have a fly-in but also has a museum, restoration center, high school and other youth activities and facilities as well.

This year my project was to refurbish a section of an MD-80 fuselage to form a back drop for a speaker's podium and to revamp the interior to resemble a B-29 radio compartment, B-17 navigators compartment and display survival equipment along one side while providing typical airline seating along the other side. While we still lack some equipment it is pretty impressive.



Yes , we did have to watch the "Blue Angles" and other performers during the actual air show while we operated our special event station, W4S on 14.250 MHz, but someone had to watch.

OK, to be honest, it has been warmer during January, February, and March.

See you soon.

## AGENDA

April 12, 2017

3. 7:00 – 7:30 PM – Network & Rag Chew
4. Call to order: Introductions. Kevin Steers (K9VIN)
5. Announcements, Bragging Rights, Show & Tell, Upcoming Events, etc.
6. Program: Randy Timms, KB9JMH: VI-PER RIDE – Visually Impaired Patriots Experiencing the Road
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  - B. Other:
17. OLD BUSINESS
18. NEW BUSINESS
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### **First Class**

Next ORC Meeting

#### **Grafton Senior Citizens Center**

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

Wednesday, April 12<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



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Volume XXIX

May, 2017

Number 5

## From the President

*de Kevin Steers (K9VIN)*



Spring has not quite sprung here in Wisconsin. What had appeared to me to be an early start to motorcycle season has stalled out, leaving us Cold, Windy, and Wet; three great reasons to delay climbing the tower, for sure.

I write this article, with nervous anticipation, as our Spring Swapfest is just a few days away. Thanks to Loren Jentz N9ENR, and the many volunteers who help in make this a memorable event. We expect to have over 100 tables in play, so I look forward to spending some quality time surveying the 600 feet of electronic goodies and parts. Unfortunately, my budget is being restricted, with the impending trip to Dayton. Thanks to all of those that volunteered to help early on Saturday, and to those whose arms I twist to help out in various ways throughout the event.

Speaking of Dayton, it is only 10 or so days away. I may have room in my car for anyone who is interested in tagging along. You would need to find a room, though, at The Baymount Inn & Suites, located at 319 E. Leffel Lane, Springfield, Ohio.

Not a lot going on in the shack other than working a few of the recent ARRL state weekend QSO parties. On the bench, I am just clearing room to look at my rotor once I get the nerve up, and the weather cooperates, to climb. I am hoping to put together a trap dipole with some vintage blue Unadilla traps that I have squirreled away, which reminds me to bring one to the Swapfest to seek advice.

Lastly, Field Day is just around the corner, so be sure to block off June 24-25 and join us at this fun club event.

# DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



The month of May is usually when the weather starts to improve and hams start thinking of outdoor activities. It is also the month of Dayton, now Xenia. The change in venue should prove interesting.

There are two interesting things regarding propagation that tend to happen this month. The first is that sporadic E (Es) usually starts up. This provides some interesting propagation on 10 M, 6M and very occasionally 2M.

This happens when the E layer of the ionosphere becomes ionized. The E layer is between the D layer that absorbs low frequency signals during the day (the reason you only have short range on the lower bands and the AM broadcast band until after sunset), and the F layer which is responsible for most of our HF long distance propagation. Unlike the other layers, the E layer is not affected much by ultraviolet radiation from the sun like the other layers are. The exact cause is not completely understood but the most popular theory is wind shear. That is good news because with the current sunspot cycle we will not get a lot of F layer propagation on 10 meters, and almost certainly none on 6.

Because the E layer is not very high, the maximum distance is only around 1400 miles. From time to time you get multi-hop and you can get longer distances including down to South American, and across the pond to Europe and Africa.

The openings happen more often on 10 meters, less frequently on 6 and only very occasionally on 2 meters. It is important on 6M because it is one of the best propagation modes on this band except for the peak of very good sunspot cycles. The last time we had that had good F 6-meter propagation was back about 2000-2001. The next one may be a long way off. If your radio has a 6-meter position, the next few months are the time to check it out.

The longer days also mean there is more light at higher latitudes. This provides interesting propagation to the Asiatic Russian regions late at night on 20 meters. I remember spending several hours on 20 CW and working one station after another. Every time I signed with one station, 3 more would be calling me. It is something to check out.

The contest season is winding down. The big one this month is the CQ WPX CW contest. It starts at 0000 UTC on May 27 and ends 48 hours later. As usual, this is the Memorial Day weekend.

I have a hard time sitting in front of the rig if we have a nice weekend that time of the year, but I have operated it. It was the first contest I managed to make over 1000 contacts from my own station. Basically, you work anyone you hear. Multipliers are the different call sign prefixes. Being a W9, I don't attract a lot of attention, but if you have a more unique prefix you might get a good stream of callers. Points depend on where the other station is located, with contact with other countries and other continents worth more points than working your own country.

The rules are a bit complex, and if you are interested in operating you should check them out at [http://www.CQ-amateur-radio.com/cq\\_contests/cq\\_ww\\_wpx\\_contest/cq\\_ww\\_wpx\\_contest\\_rules/2017\\_cq\\_ww\\_wpx\\_rules.pdf](http://www.CQ-amateur-radio.com/cq_contests/cq_ww_wpx_contest/cq_ww_wpx_contest_rules/2017_cq_ww_wpx_rules.pdf). Note that you don't have a lot of time to submit your logs. The deadline is June 2, only 5 days later.

DXpeditions are a bit light this month. There are a lot of smaller operations with single ops going to some interesting places, like North Cook Islands, Minami Torishima, Qatar, Market Reef, Fernando de Noronha to name a few. For the most part these are single op efforts and often vacation style. The best bet is to just be on and hopefully from time to time one of them will appear.

There are a couple of bigger efforts planned. Of special note is Lakshadweep Island. This is an island owned by India but counts as a separate DXCC entity. Propagation to that part of the world is tough, and most of the operations from there have not been all that well done, thus it is high on the list of most wanted from this part of the world.

This effort will use the call VU7KP from May 15-19. The ops are W4VKU and VU2PAI. They will be on 40-10 meters, CW, SSB, and RTTY. The station will include beach verticals, which can be very effective, and amplifiers. Unfortunately, this is a vacation style effort which means they will operate as time allows. If you are lucky enough to tune across them, make every effort to work them.

A larger operation will be from Eritrea from May 19-29. The plan is to operate CW, SSB and RTTY 160-10M. The callsign will be E31A.

I was looking through the folder I store these columns in. After sorting by dates it jumped out at me that this was the 5<sup>th</sup> anniversary of writing this column. I guess it proves the adage "Time flies when you are working DX!"

## THE COMPUTER CORNER

### *No. 231: The Death of XP*

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The time has come, folks. XP POS (Point of Sale) will still work and update, but it is no longer safe to use. Particularly with the advent of ransomware (a hot new type of malware that locks your machine until you pay a ransom – a topic for a different Computer Corner article), I really can no longer consider XP safe to use. There is too much at risk, particularly if you have it networked with other XP or non-XP machines.

If your XP is, indeed, networked with others, you can consider it the weakest link in the chain, making all the other computers in the network vulnerable to attack. In other words, if the weak-link XP machine becomes infected, the infection can more easily spread to the others in the network. Time for the law of diminishing returns to kick in. It is simply no longer worth using XP.

The only exception was clearly outlined by John Strachota (W9FAD) one morning at our Southern ORC Breakfast (there is a Northern ORC Breakfast, too). John wants to continue to use an older CAD/CAM program that will not run on anything higher than XP or even Linux. But, he is willing to pay the price. He has taken the networking card out of his XP machine, which means

he cannot access the Internet or any of his other computers with it. Anything he wants to transfer can be easily done with a floppy, CD or thumbdrive (we called this “sneakernet” back in the day when it was more common). Used in isolation this way, the XP machine cannot be directly infected, nor can it directly infect others. The only possible danger is when transferring his work to or from the XP machine by floppy, CD or thumbdrive. One can scan any of those media to make sure they are clean before the transfer. But, he must scan using an Internet-connected machine since virus definitions cannot be updated on the XP.

So, face the situation, fellow computer users, and switch your operating system, NOW. Seriously consider Linux. It looks a lot like Windows, can do all the same things (and more), and gets you away from Microsoft, which will all be rentware soon, anyway. (Remember you saw the term “**rentware**” first in this column ... I just coined it). Let me leave you with a clever item I copied for you in the box below. Happy computing!

Hyphenated.
Non-hyphenated.
<b><i>The irony!</i></b>

## UPCOMMING EVENTS

**Ozaukee Radio Club Spring Swapfest – May 6, 2017 – be there!**  
**Membership meeting – May 10, 2017**

### May 10<sup>th</sup> meeting program

Pat Volkmann, W9JI will present a program/demonstration of the HRO Receiver – a WWII vintage receiver used to intercept German transmissions among other information.

### How's DX?

Submitted by Ray Totzke (W9KHH)



Ahead is one of the annual May QST reports by the column conductor Rod Newark W9BRD (SK) concerning the DXHPDS gathering in Long Hall. It is May. The DXHPDS is meeting somewhere. Who will go down and report?

Working DX? Dreaming of DX? Fill your fruit jar with Old Haywire, toast those who have gone on before, and read the report of the May 1962 gathering of the DX Hoggery and Poetry Depreciation Society. Is that melody in your mind that of the Wouff Hong Song? QRM? QRN? Pile-ups? Just part of the game! Keep calling!! Ray Totzke W9KHH

# How's DX?

Conducted by Rod Newkirk W9BRD (SK)

## Phew!

Long Hall rumbled and creaked with the usual noisy May get-together of the DX Hoggery & Poetry Depreciation Society. Fool-hardy chairman Yul B. Sari ducked a well-aimed Rettysnitch while introducing Max R. Earsring, guest of honor for this, the tenth-anniversary DXHDPS workshop. We raised a rather threatening toast of Old Haywire in Max's direction and noted that his right arm was much more muscular than his left. He had, you see, achieved the first W/K DXCC ever scored solely by calling CQ DX.

Mr. Earsring acknowledged the crowd's acclaim by bowing graciously, just low enough to avoid the pair of whirring prop-pitch motors that went crashing through the wall behind him. Another round of O.H., a ringing chorus of the Wouff Hong Song, our DXHPDS anthem, and we lay back on our psychiatric couches ready for the business meeting. O. Howie Splatters fearfully crept forward to start proceedings:

The noodle of Numbskull O'Shell  
Is cracked like the Liberty Bell  
He always piles in-  
To a pile-up's mad din  
Just to say TNX QSL.

After they carried Howie away, Don E. Eversign recklessly faced the forum:

The pasteboards of G. Whizzo Gee  
Are answered occasionally,  
His average is down,  
The lowest in town—  
He simply abhors GMT.

The congregation's mood grew uglier. Several plumed attendants appeared on stage and began to place tree branches on the floor around Max R. Earsring as Houghton N. Halloran delivered:

The antics of Quibbler McTwist  
Are funny, yet wouldn't be missed.  
He cunningly fools  
With certificate rules  
And utopian countries lists.

The stage crew busily added old pieces of twine and newspaper to the foliage surrounding our star visitor... Max was highly pleased by all the attention, and shouts of "the high edge" came from the audience. The rising tumult forced Will U. Nockitoff to howl his recitation S9-plus, a gem mailed by W1TS whose insurance company forbade his attendance:

A **pfui!** on Itchy DuSchwein  
Who gives me a pain in my spine.  
He twiddles and twaddles  
His gold-plated paddle  
While waiting for DX to sign.

By now it was apparent the peculiar construction on stage was actually a huge bird's nest. Max Earsring leered out from the crater like some transmuted vulture while the mob kept chanting, The high edge! Tune in the high edge! Sure enough, rising in volume over the p.a. system we heard sounds of 14.348 kc. with several foreign accents calling CQ USA. This activated Max's conditioned reflexes causing him to leap up the side of his giant nest screaming, "CQ DX. CQ DX! CQCQCQCQ DX!!

The remainder of the caucus is mercifully vague in our memory, but we recall that Max R. Earsring began to raise DX. First came a soft sprinkle of hummingbird X on stage, followed by splattering of sparrow X and pigeon X. Then from the gallery came a barrage of chicken X and heavy duck X. Max, now sensing his danger, looked around for an avenue of escape but was blinded by a broadside of overripe goose X. He almost made it to safety over the rear rampart as a whizzing fusillade of huge ostrich X pinned him down. Two colossal fossilized dinosaur X administered the *coup de gras*, crashing into the mess on stage and collapsing the entire structure into abysmal depths below. The yolk was on Max — he was no longer getting out.

QST May 1962, ARRL

## **This Month in ORC History: 40 Years Ago**

Edited by Ben Evans, K9UZ

*(The following is an edited version of the minutes from the ORC meeting on May 11, 1977.)*

President called the meeting to order at 19:43 local time. It was noted that a quorum was present.

The secretary read the minutes of the April 13th meeting which were approved as read.

The treasurer reported a total accountability of \$1,106.89 plus \$98.55 in patches. On motion of WA9UJK seconded by WA9UDZ and unanimously carried the treasurer's report was approved.

WA9USA reported on Dayton and Menomonie. He was favorably impressed on both gatherings.

The president asked those planning to go to the Stolte wedding to report to him so that the hostess could make proper arrangements.

WA9UDZ gave a repeater report. The repeater went down the afternoon of 11th due to trouble in the power supply. WB9PAS was at that moment working on repairs. The split sites seem to be working well, although some receiver's sensitivity has been lost. This should be restored with a pre-amp. The Sinclair antenna is due for installation soon.

Several members made their equipment needs and antenna raising party needs known to the club.

The president announced that on April 21, 1977, he sent an operational order to the activities manager concerning communications for the Vince Lombardi Memorial Open. This activity is to be coordinated by W9NHE who gave some details. W9FY stated that knows of several operators that were available. W9ATK stated that could furnish handi-talkies complete with a battery charging device. This project is to be followed up.

WA9USA announced a communications service to be done for the Blue Knight Motorcycle Rally on May 21. This will require eight operators. WA9USA will coordinate.

W9LO gave a report on field day preparations. It was determined that UHF and Novice positions would be included in the year's efforts. Field day is to be at Lazy Days camp grounds. W9LO will coordinate.

It was announced that assembly bill 702 was in committee. The thrust of this bill is to rescind the requirement that amateur equipment be permanently installed in a vehicle before and while it qualified for HAM call license plate. The committee hearing is to be May 19th. All were urged to write or call their assemblyman.

WB9PAS reported that there was no firm date for the projected fox hunt.

The program for the evening featured Dick Oberholtzer on police radar.

There being no further business the meeting was adjourned.

Respectfully submitted,  
SUS MUSASHI WB9BGJ

# April 12, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary

Kevin S. (K9VIN), President, called the meeting to order at 7:29 PM. All the attendees introduced themselves.

## **Announcements:**

Dick H. (AB0VF) announced that he placed first in Wisconsin in the ARRL DX contest with 27 contacts.

## **Program:**

Randy (KB9JMH) and T.J. gave a presentation about VIPER (Visually-Impaired Patriots Experiencing the Road). This is an annual event that involves taking blind or visually-impaired veterans on a 100+ mile group motorcycle ride. The tour starts from the VA center in Milwaukee and stops at East Troy where they have a picnic. After the picnic the group returns to the VA. An APRS station is set up in East Troy for the event. This year's VIPER ride is on August 20, 2017.

ORC members are invited to volunteer for the event in any way possible.

## **Auction:**

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

## **Officer Reports:**

Kevin S. (K9VIN), President – Kristian M. (KC9TFP) will head next year's Spring Swapfest, replacing Loren J. (N9ENR) who is stepping aside after this year.

1st VP – Pat V. (W9JI) wasn't at the meeting, so there was no report.

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

Tom T. (KC9ONY), Repeater VP – Regarding the 97 Repeater, the WAR frequency coordinator advised not to use the "free" antenna that was considered for installation because it wouldn't be efficient at that frequency. Tom has located and examined an antenna owned by someone in Richfield who bought it new but doesn't plan to use it. It was never used or installed and looked pristine so Tom bought it with his own money for \$750 in hopes that the club would reimburse him. The antenna retails for at least \$1,200.

Dave S. (KA9WXN) has a mast that might be suitable for the antenna. Jim A (K9QLP) can arrange to have a bucket truck from the Cedarburg Fire Department assist with the installation.

There is concern about the condition of the barn and the repeater shack inside it. There is a hole in the barn roof that got worse after the last big wind storm. Water leaking through the hole is dripping onto the ceiling of the repeater shack and it appears that one wall of the shack is water-damaged. Tom placed a plastic sheet above the shack as a temporary measure.

Ben E. (K9UZ), Secretary – The minutes from March's meeting is in the newsletter. Motion to accept the minutes as written was made, seconded, and passed without debate.

Dave B. (N9UNR), Treasurer – Motion to accept March's Income and Expense

Report was made, seconded, and carried without debate.

**Committee Reports:**

Spring Swapfest (by Tom, KC9ONY) – Tom has Swapfest tickets for those wanting to buy them. He is looking for a group to sell food at the Swapfest. The Grafton Destination Imagination isn't available.

**Old Business:**

None.

**New Business:**

Dave B. (N9UNR) – The nametag vendor the club uses has moved to Saukville, so the cost of the nametags would have to be raised to \$10 to cover delivery. Rather than have them shipped, Gary D. (K9DJT) volunteered to pick them up on the way to the meetings, since he lives in Port Washington.

Tom T. (KC9ONY) – The International Lighthouse/Lightship Weekend (ILLW) is August 18-20, 2017, at the Kevich Lighthouse on Lake Shore Road, west of the Village of Grafton. This is an international annual ham radio event where operators set up stations in or next to lighthouses or lightships and try to contact as many other ILLW stations as possible.

Ken B. (W9GA) – Zac (KC9ZNR) requests that anyone in possession of loaner laptops please return them, as they're needed for Field Day. Ken will talk at the next meeting about using a lighter and easier-to-set-up tent for Field Day. Field Day this year will take place at the Pleasant Valley Nature Park in the Town of Cedarburg, June 24-25.

**50/50 Drawing:**

There was no 50/50 drawing.

**Adjournment:**

A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 8:50 PM.

**Attendance:**

There were 29 members and three 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

## **AGENDA**

*May 10, 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: 50/50 – Kristian Moberg, KC9TFP
5. Fellowship Break
6. Auction – Stan Kaplan (WB9RQR)
7. Presidents Report – Kevin Steers (K9VIN)
8. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
9. 2<sup>nd</sup> VP Report –
10. Repeater VP report – Tom Trethewey, (KC9ONY)
11. Acceptance of Minutes - Ben Evans (K9UZ)
12. Treasurer's report – Dave Barrow (N9UNR)
13. Committee reports.
  - A. Spring Swapfest
  - B. Other:
14. OLD BUSINESS
15. NEW BUSINESS
16. Adjournment, to John's Pizza

Return undeliverable copies to

### **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, May 10<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



# The *ORC* Newsletter

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ORC Repeaters on 146.97, 224.18 and 443.750 MHz - Callsign W9CQO

Web site: [www.ozaukeeradioclub.org](http://www.ozaukeeradioclub.org)

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Volume XXIX

June, 2017

Number 6

## From the President

*de Kevin Steers (K9VIN)*



Well once again I made the pilgrimage to Dayton this year for the Hamvention. I had great weather for the eight-hour drive and was able to make a few 2-meter simplex contacts through Chicago, and again once closer to Dayton. I helped to pass the solo road trip listening to Chaucer's Canterbury tales from the library, since I don't have an HF rig in my car now.

As usual, I met up with a great childhood friend, who now lives in Traverse City MI, and his Cherryland club, at the Baymont Suites in Springfield. It was conveniently located about 25 minutes from the grounds.

I have only been going to Dayton for about three years now, but attendance seemed to be quite good. The new venue was nicely spread out and the expo halls were clearly re-named Hertz, Tesla, Marconi etc, for ease of remembering/returning. The swap areas were quite impressive, but the spread of the acreage made for quite a bit of walking. With the amount evening rain, and a monsoon that passed through on Saturday, made for quite a muddy mess in the larger of the swap areas. I look through rose-colored glasses as I depict the event, and hopefully others will provide their own account. I had the



pleasure of running into Gary S W9XT, Gary D K9DJT, and Bill S AC9JV, so be sure to hit them up for their perspectives. I especially appreciated the variety of food truck/carnival food venues that spiced things up this year, as compared to the commissary food I recall from the old venue.

Each year the highlight of the trip is spending time with Frode, KE8CS from the Cherryland club, who is multilingual and invariably strikes up conversations with Hams from around the world at the Cherryland swap booth. This year

was a treat when three gents from Norway visited bearing gifts of Aquavit, and joined us in our revelry at the Hotel on Saturday night. A plus was when Drasch and Schnell stopped in, since they were staying nearby.

## DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



Back in the April issue I covered how Kure and Wake Islands were removed from the DXCC countries list. Well, guess what? It was decided that the reasons for deletion were incorrect and both were reinstated. You might have picked up a couple of countries on your totals without turning on the radio! There is a total of 339 current DXCC entities again.

As mentioned before, the criteria for inclusion are complex. There are disagreements on how the rule should be interpreted. One of the most controversial is Scarborough Reef. It consists of scattered rocks sticking out of the water. In the 2007 BS7H operation they had to build scaffolds on the rocks to hold the equipment and operators. A lot of DXers don't think that it should not count.

It was a very tough one for me. We had bad conditions and openings were short and with weak signals. I was late for work several days before finally getting through. It is currently ranked as the number 5 most needed country.

The big event for June is of course Field Day. This is the biggest event of the year for the ORC and probably most clubs in the US and Canada. Hopefully you will be attending. We need people to help set up and tear down, and of course, to operate.

If you are planning to operate and are not a regular contester, now is the time to brush up on your logging skills. We use the N3FJP logging program. You can download a free demo version from [www.n3fjp.com](http://www.n3fjp.com). You can only log 20 calls, but you can restart it and start over.

Practice with entering callsigns and exchanges. Enter calls and exchanges and then go back and edit them until you can do it without thinking of the steps. You should also be able to change bands and modes. You may not be on a station that does that, but you might accidentally get switched and you will need to get back. Also, you need to know how to change the operator when you start. There is a place to enter your initials, but if everyone just enters their call it will be much easier to tell who is operating.

If you will be operating CW and are a little rusty, download a copy of Morse Runner. You can get a free copy at <http://www.dxatlas.com/morserunner/>

This simulates the WPX contest. You call CQ and stations call you. It has a lot of parameters. You can set the CW speed; add QRM, QSB, QRM, lids, etc. You don't send any CW with your paddle as everything is sent with the function keys.

Maybe you don't call CQ in contests, but it really is important to maximize the number of contacts. That goes for phone too. Besides potentially higher rates, many stations never CQ. If you don't call CQ you will never work those stations. We should be calling CQ about 70-80% of the time. Morse Runner will help you build skills and confidence in CQing.

The other big operating event is the ARRL VHF Contest. It starts at 1800 UTC on Saturday June 10 and ends at 0300 UTC Monday (Sunday night local). The thing that makes this VHF contest special is the time of the year. It is near the peak of the spring sporadic E (Es) season. This is short range out to about 1200 miles but sometimes we can get multiple hops into the Caribbean, South America or even Europe.

Because most modern HF rigs now include 6 meters the activity levels can be very high if we get the Es openings. Of course, if you have higher VHF and UHF bands you will want to check them out too. When 6 meters is closed most activity is on 2M. After a contact is made it is common to run through the different bands.

Full rules can be found at <http://www.arrl.org/june-vhf>.

The most interesting DXpedition for June is the Christmas Island by HL1AHS as part of an IOTA (Islands on the Air) effort. The plan is for 80-6M, CW, SSB, RTTY, and PSK31. The dates are June 24-July 1 with the call VK9AA. With a single operator, you may have to put in a bigger effort to find him.

Palau (T8) looks like a common destination for Japanese hams this month. There are three different operations in June. Keep an ear out for T8 calls this month. Between them they will be on all bands 160-6M, CW, SSB and digital.

A good catch at the start of July is Market Reef from July 1-7. OJ0V will be put on by a group of Belgium hams on 10-80M, CW and SSB.

That wraps up June radio activities. See you at FD!

## No. 232: Bitdefender Antivirus Free Edition

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



There are quite a few very good antivirus suites out there, and for the last few years I have been using Panda Antivirus. It works, and has been unobtrusive until recently. But, during the last few months, I have noticed that Panda throws quite a few pop-up notices on the desktop, trying to get the end user to pay for the program. I guess the business pressure is on Panda to increase its revenue stream, hence the increase in pop-up notices.

So, I went looking to see if there is anything else out there that might replace Panda. I found it. Bitdefender is said to rank as one of the best free antivirus programs out there, pretty much equal to Kaspersky (which is not free). It does not nag you with pop-ups like Panda and others, so you can enjoy your computing without constant (or even occasional) interruptions. Unlike AVG, Avast or Avira, it will not slow down your system. Just quiet, competent vigilance, and that is exactly what we want from an antivirus sentinel. Plus, once installed, just right click a file, folder, or whole drive, and select "Scan with Bitdefender" from the menu for a very fast scan. Nice. I have installed it on all five of my Windows machines.

Here is the easy way to do it. First, download the installer, "**Bitdefender\_online.exe**" from Majorgeeks at [http://www.majorgeeks.com/files/details/bitdefender\\_free\\_edition.html](http://www.majorgeeks.com/files/details/bitdefender_free_edition.html) or direct from Bitdefender <https://www.bitdefender.com/solutions/free.html>. Leave this file, about 8 Mb, on your desktop, ready to double-click to start, but DO NOT START THE INSTALLATION YET. Make sure you have about an hour for the uninstall and new install before you start. You do not want to leave your machine without protection.

Now use Geek.exe (recommended) or CCleaner (also recommended) to uninstall your current antivirus completely. Geek.exe will do the best job of cleaning up the leftover junk. When done with the uninstall process, reboot your machine.

With the reboot completed and the machine on-line to the Internet, double-click **Bitdefender\_online.exe** to start the installation process. When the installation is done, do a system scan to find any bad stuff that might be hiding, and use Bitdefender to remove or quarantine it. When that is done, reboot again. Don't forget this last step, and make sure Bitdefender starts up automatically when the reboot process is finished.

There has never been a time when a good antivirus program has been more needed. Ransomware, a new type of malware in which your machine becomes locked until you pay a hefty ransom, is striking individuals for hundreds of dollars and businesses for many thousands of dollars. This is a nasty virus class that will provide you with much grief if it hits your machine. Bitdefender is one of the ways to prevent it. And, prevention is really the best way of dealing with this problem. Happy computing!

## Getting into Electronics and Amateur Radio



In 1961, after high school, I tried college, but I wasn't really prepared for it. However, my one year of ROTC tweaked my interest in the military. I later completed advanced electronics training (associate degree in broadcast engineering) at the Milwaukee Institute of Technology (now the Milwaukee Area Technical College, but MIT sounds better). K9GCF and W9CRQ were two of my classmates. Following in my dad's footsteps I also took some night classes at the Milwaukee School of Engineering. Upon graduation from MIT in 1964 I enlisted in the USAF. About two weeks later my draft papers arrived...that's cutting it close!

After basic training at Lackland AFB, TX and electronics training at Keesler AFB, MS I was sent out as an avionics technician. I worked with F-105's (TAC - Rolling Thunder), B-52's (SAC) and KC-135's (SAC), being stationed at; McConnell AFB, KS, Korat RTAFB, Thailand, Kadena AFB, Okinawa, Takhli RTAFB, Thailand and finishing up active duty at Castle AFB, CA.

Best part of my job at Castle AFB, CA was flying in B-52's and KC-135's to troubleshoot in-flight avionics problems. I remember well a bird colonel (O-6) of a B-52 who wrote up an inoperative ILS (Instrument Landing System) four times. The avionics shop was never able to locate a problem, either on the aircraft or in the shop. The colonel even threatened to act against the avionics shop. I flew on the next mission with the colonel/pilot (and the same aircraft). After a 14-hour flight (with mid-air refueling) we returned to Castle and the colonel set up the ILS for final approach. The angry pilot again started complaining about the ILS being inoperative. I was brought up to the cockpit and checked out the situation. The pilot didn't have much to say when I "diplomatically" pointed out that he was on the wrong frequency, as he was with his previous write-ups! He never did offer a word of apology or thanks (just a snort). I felt that a case of beer for the avionics shop would have been appropriate!

P.S. No more write-ups with that ILS system.

## UPCOMING EVENTS

**Membership meeting – June 14, 2017 – Be there**

**June 14<sup>th</sup> meeting program - Measuring the Air, Part II - Nels Harvey (WA9JOB)**

ARRL June VHF Contest - 1800 UTC Saturday, 6/10 - 0259 UTC Monday, 6/12 - Contest Rules <http://www.arrl.org/june-vhf>

## FIELD DAY 2017 ANNOUNCEMENT

Weekend of June 24-25, 2017

I would like to invite the club members both old and new to join us in participating in our annual Field Day activities, once again to be held at the Pleasant Valley nature park, north of Cedarburg. We will meet on Thursday afternoon, June 22, at our storage shed located on Hawthorne drive, and pick up the tower trailers and storage trailer and tow them to the park, where we will unload and erect the large activities tent. We could sure use your help in this crucial opening activity of the FD weekend. We will be at Pleasant Valley park on Friday the 23<sup>rd</sup> working on antennas and beginning to set up our 6 stations. The highlight of the day will be held

late that afternoon, which is a roasted Turkey dinner, thanks to Stan WB9RQR, and others, and will require you to bring a dish to pass, such as salad, veggies, snacks, or a dessert. The club will provide the turkey, baked potato, and drinks such as soda, beer and water. You would also want to bring a lawn chair, as well as a food item, and don't forget your appetite.

Saturday morning the 24<sup>th</sup> we will finalize our station setups, and hit the airwaves at 1800Z for the 24 hours of the event, with teardown and towing of the trailers back to our shed on Sunday afternoon. We plan to activate 5 main stations and a VHF station. All in the club are encouraged to get involved, and play some radio this weekend. If you are a seasoned operator, you should jump in and get some 'chair' time on HF, and if you are new to radio, come on in and get acquainted with one of the fun facets of our hobby. Here are the Band captains of our planned station configuration:

W9IPR Tom;	40 meter SSB
W9XT Gary;	40 meter CW
K9DJT Gary;	20 meter SSB (75 meter)
WT9Q Vic;	20 meter CW (80 meter)
KC9ZNR Zach	Digital (15 meter)
N9UUR Gary	VHF station, 6 meters

We encourage all of you to talk to these captains if you would like to join them at their operating positions. We will discuss the operating parameters and other functions at our upcoming meeting this Wednesday, so please plan to attend!

Ken W9GA

## Hamvention; we're not in Dayton anymore!

By: Gary L. Drasch, K9DJT

Bill Schnell, AC9JV, and I traveled together to Hamvention this year. As always, he and I have a good time when together. We left my QTH at 0800 Thursday morning and made our low-level flight to Xenia; the new Dayton location. (I was driving!) We were monitoring 146.52 MHz during the trip and managed to have a couple of QSOs with others also going to Hamvention. There were a few times we'd pass the guys we were talking with and wave. Then there was the time I received a phone call from W9XT who said, "Don't you know Ohio has a speed limit?" I didn't remember passing him, when Gary said he was traveling with someone else and they didn't have radio amateur call plates. I asked if I was really traveling that fast, and Gary said, "No, I just had an opportunity to bust your chops which I couldn't pass up." (I try to travel at the same speed as traffic.)



We made our way to Springfield, about 16 miles north of Xenia, and found our hotel. After having a good dinner at Nick's, a brewpub, we proceeded to Xenia and the fairgrounds. We wanted to get a lay of the land that evening rather than trying to figure things out in the morning. We found all the various entrances for the grounds to be on the same two-lane road. We could envision the traffic congestion it posed. One of the neat things we could tap into was that Hamvention set up a traffic

bulletin recording loop on a 145.525 MHz. That's where we discovered that there were shuttle buses available from a variety of locations outside of the grounds. Bill and I decided to use the one running from the high school parking lot. (Xenia closed the school on Friday due to the event.) I don't think we spent more than five to ten minutes from when we parked the car to being dropped at the ticket booth. It was fantastic! And comparing it to those who drove in and parked on a grass lot, it was fabulous!

We all know that everyone has their own opinion about things, and , the same goes for Hamvention. Bill and I both felt the same about the venue. It was very good except for the flea market area. Just like a state fair, there were many food trucks with a very large variety of items to choose from compared to the Hara arena. Bill attended a couple of forums and said the meeting rooms were great. The main buildings, where the big name manufactures were, were also very good. (That is where I spent most of my time.) They had also set up a couple of big, multi-pole, party/wedding type, tents which were questionable. (They leaked when it rained and several of the vendors needed to cover their wares with tarps. Not cool.) Oh, did I mention rain? What would Hamvention be without rain? Yes, it did rain, and that is the reason the flea-market area was a disaster. It was on grass in the center of a horse racing track. The markings on the grass began to disappear and the main walkways turned into mud; a lot of mud. The on-grounds parking area also turned into mud and became pretty ugly. We were glad we used the shuttle. Over all, Bill and I felt it was pretty good for being their first year at a new venue. They [Hamvention] need to address the mud situation and find a different tent vendor. Other than that, it was a GREAT time! I even made an unplanned purchase of a new FT-891 for my vehicle. By trial and error, we managed to find a few good places to eat. (We put those into our memory bank.) We bumped into a couple of the guys we had met on 146.52 while traveling and a few OM from ORC. I also ran into a lot of the members of the Greater Milwaukee DX Association.



I believe Bill will agree with me in saying, "If you didn't attend this year, you should definitely do it next year." See you at Hamvention in 2018!

73, Gary, K9DJT

## **Wanted: Storm Spotters....Not Storm Chasers**

Don Zank, AA9WP, Emergency Coordinator, OZARES

Do you like operating amateur radio? Do you find observing the weather interesting? Do you want to participate in a community service?

The local National Weather Office in Milwaukee depends on reports from the public to provide ground reports during severe weather. This includes reporting hail, severe winds, property damage, flooding and, of course, tornadoes. As the radar cannot see what is going on at ground level these reports are vital to the forecasting office.

During a severe weather event, the OZARES (Ozaukee Amateur Radio Emergency Services) group will activate to provide ground reports to the National Weather Service Office in Sullivan,

Wisconsin. OZARES is one of eleven support organizations that provide reports in the 20-county warning area (CWA).

Ozaukee County is a little larger than 1,100 square miles. That is a lot of ground to cover and OZARES only has 12 active members. What is not needed are several operators chasing the same storm or event. What is needed are reports that cover the whole of Ozaukee County, or at least, the most we can.

The Sullivan Committee, SULCOM, is the organization that coordinates incoming reports for the weather office. SULCOM has a HF/VHF station that, by using local repeater sources, receives, and passes along the reports to the forecasters in the office, at <http://www.sulcom.info/>.

During a severe weather net, the members will check into the 147.330 repeater to provide local, very local, weather conditions. One other member of the net will relay the reports to SULCOM. Guests are more than welcomed to join us.

Practice Net June 15.

## **This Month in ORC History: 35 Years Ago**

**Edited by Ben Evans, K9UZ**

(The following is an edited version of the minutes from the ORC meeting on June 9, 1982.)

REGULAR MEETING opened at 7:30 PM, WD9FQW presiding. No objections to the agenda for this meeting as carried in the Newsletter. Minutes of the previous meeting accepted as published. TREASURER'S REPORT presented by KA9HJR. Motion to accept by WA9JOB, second by WA4BCW; carried.

OLD BUSINESS: Field Day: KA9CSC reported information from WA9AWO about T4X transmitter. WA9JOB reports that WA9UJK will need help with the EATS. W9RXJ will furnish LOG and DUPE SHEETS. WB9LNL volunteers to help with the FOOD. No report from KA9EXY on LF SSB, due to his absence. W9WQ reports equipment and antenna lined up for SECONDARY CW position, but shelter situation not yet resolved. No GENERATORS yet offered. WD9FQW requests money authorization for FOOD/FUEL. \$300 authorized.

No report on LAKE FRONT MARATHON available. WA9TZU is confined to a wheelchair at WA9UJK's QTH, and can be contacted on the 144.53/146.13 repeater.

LOMBARDI GOLF TOURNAMENT: W9NHE reports that there will be a RAFFLE conducted in conjunction with the affair this year, with some large, attractive prizes such as a CAR, BOAT, TV SET, etc. Get FOUR FREE ADMISSION TICKETS with each \$2.50 raffle ticket purchased. A PORTABLE REPEATER on 37/97 will be used, with our ORC repeater left on tone access. Moved by WB9PAS and second by WA9JOB; carried.

NEW BUSINESS: No report on the CORN ROAST due to the absence of movers/shakers. Tentative date is 3rd or 4th Saturday in August. Moved by WA9JOB that WD9FQW investigate the site availability (LIME KILN PARK). LIABILITY INSURANCE for club activities is available through ARRL. Discussion of premiums/limits/exclusions, etc. WA9BMA requested to examine literature submitted by the insurance brokers. Moved by WA9JOB, seconded by WA9JMS, that a COMMITTEE be appointed to look into the insurance situation. Motion REJECTED. Moved

by KA9DDN and seconded by WB9LNL to apply for the \$1 million/\$120 per year offer, if it can be obtained for Field Day this month. Motion carried. Comment by WA9BMA that the insurance broker handling the insurance was not competitive in bidding for lawyer's malpractice insurance. HOLLAND DAYS: KC9EZ reports that it is scheduled for the last Saturday in July, and is looking for volunteers. A new EMERGENCY GOVERNMENT DIRECTOR has been hired, says WA9USA. She will be invited to the July meeting.

Motion to adjourn by KA9CSC, second by KB9UE. Motion carried and meeting adjourned at 8:32 PM.

W9WQ, Joe Bauer, Secretary

## Ozaukee Radio Club Meeting Minutes of May 10, 2017

De Ben Evans (K9UZ), Secretary

*Correction Note: In the April meeting minutes in last month's Newsletter, I erroneously reported that Dick H. AB0VF placed first in Wisconsin in the ARRL DX contest with 27 contacts. It was, in fact, Ray T. W9KHH that won the award. Your humble Secretary apologizes for the error.*

Kevin S. (K9VIN), President, called the meeting to order at 7:29 PM. All the attendees introduced themselves.

### **Announcements:**

Art D. (AC9CD) announced that he's resigned from the position of OZARES Emergency Coordinator. His replacement is Don Zank, AA9WP.

Tom R. (W9IPR) wants to maintain a file of photographs of ORC members. Please see him during the meeting break or after the meeting to get your picture taken.

Tom T. (KC9ONY) announced that ham volunteers for communications and support are needed for the Ride for the Arts on Sunday, June 4<sup>th</sup>. Go to [upafride.milwares.org](http://upafride.milwares.org) to sign up. Also, operators are needed for the event station at the EAA AirVenture in Oshkosh (7/24 – 7/30/2017). Go to [www.fcarc.club/node/39](http://www.fcarc.club/node/39) to sign up.

### **Program:**

Pat V. (W9JI) gave a presentation on the National HRO Receiver, a WWII vintage receiver used, among other things, to intercept German transmissions.

### **50/50 Drawing:**

Bill L. (KD9HLN) was the 50/50 Drawing winner.

### **Auction:**

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

### **Officer Reports:**

Kevin S. (K9VIN), President – Thanks to everyone who helped make the Spring Swapfest a

success. Also, thanks go to the Cedarburg High School Robotics Club for providing the refreshments for the event. Loren will provide the statistics next month.

1st VP – Pat V. (W9JI) reports that he hasn't gotten any responses from members on the club inventory information request.

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

Tom T. (KC9ONY), Repeater VP – Nothing new to report.

Ben E. (K9UZ), Secretary – The minutes from April's meeting is in the newsletter. Motion to accept the minutes, subject to correcting the name of the ARRL DX contest winner, was made by Dave B. (N9UNR), seconded by Art (AC9CD) and passed without debate.

Dave B. (N9UNR), Treasurer – Motion to accept April's Income and Expense Report was made by Dave, seconded by Stan (WB9RQR), and carried without debate. Also, Dave said he needs help identifying a member who ordered a nametag. He received \$7 for the nametag, but couldn't remember from whom. Tom R. (W9IPR) suggested that perhaps nametags should be free for new members.

### **Committee Reports:**

Field Day (by Ken B., W9GA) – All the previous band captains will be back for this year's Field Day. Field Day is on the weekend of June 24-25 at the Pleasant Valley Nature Park in the Town of Cedarburg. Volunteers are needed for certain aspects of the event, including as operators. The Field Day supplies will be moved to the park Thursday afternoon and Friday night is the picnic. Stan is willing to cook turkey again. Ken also reports he considered a new tent but it was too expensive an option. He then considered having a tent and awning shop modify the existing tent so that it's easier to set up.

Scholarship (by Tom T., KC9ONY) – Scholarship donation item sales at the Swapfest amounted to about \$500. Tom said he decided not to go to Dayton this time because there's not much to sell.

### **Old Business:**

None.

### **New Business:**

None.

### **Adjournment:**

A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 9:12 PM.

### **Attendance:**

There were 43 members and 8 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,

B. Benjamin Evans, K9UZ

Secretary

# AGENDA

June 14th, 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 – Nels Harvey (WA9JOB)
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Kevin Steers (K9VIN)
9. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
10. 2<sup>nd</sup> 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. Spring Swapfest
  - B. Field Day
  - C. Fall Swapfest
  - D. Other:
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizzeria.

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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, June 14<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



# The *ORC* Newsletter

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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

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



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 a 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.

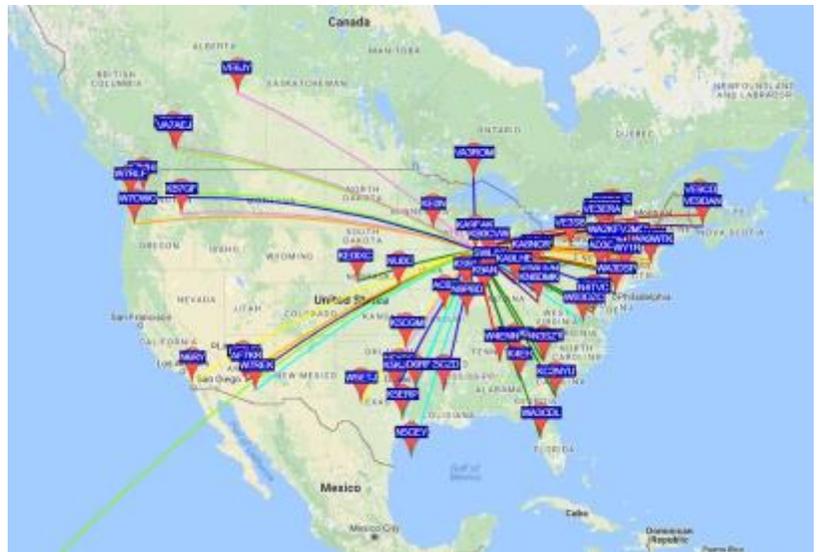


Then simply attach an antenna to the SMA connector and access an exact time reference like the USNO site (<http://www.usno.navy.mil/USNO/time/display-clocks/simpletime>) and press the start button on the WSPRlite at 2 seconds past an even minute. The WSPRlite will start to transmit and continue to WSPR 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 12<sup>th</sup> 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](mailto: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. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
10. 2<sup>nd</sup> 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  
Cedarburg WI\* 53012

### **First Class**

Next ORC Meeting

#### **Grafton Senior Citizens Center**

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

Wednesday, 12 July 2017

7:00 PM – doors open

7:30 – Membership Meeting



# 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

August, 2017

Number 8

## From the President

*de Kevin Steers (K9VIN)*



Wow, how did it get to be August already? July was a blur, with vacation time and the Independence Day holiday. Soon we will be setting up antennas at the Port Washington Lighthouse, as we once again participate in Light House Day, where groups activate in the vicinity of lighthouses and lightships, and attempt to make contacts, while, hopefully, spreading the word of ham radio, during this public activation. Please join us during the weekend of August 18-20, to make this event a success. We are sure to need help transporting gear on Friday, setting up on Saturday morning, and tearing down on Sunday afternoon. Between noon Saturday and noon Sunday are

great times to swing by with family, friends, and especially the kids to have them watch/listen, and even operate, if they choose!

**On the Air:** Not as much air time as I had hoped this month. I seem to have spent more time ON the tower than using the Tower. I have been tinkering with a rotator issue, and ruling out issues. I have spent so much time up 50 feet, that when boats come by the cottage, they wave up at me, almost expecting me to be up there. Amusing and Embarrassing at the same time. I also installed a 'yardarm' on my tower to help stand off my OCF dipole better, in hopes to improve the SWR, but to no avail. On to plan B; possible Fan dipole, or just a 160M Dipole.

**On the Bench:** Not much going on, though I have cleared space on the bench to bring the rotator down from the tower, and toil with the CDE controller, as well, to try to troubleshoot the issues I seem to be having. Also, the amplifier I want to get on the air is waiting patiently, until I can find a turner that can handle both the power, and 160M, which has been my latest foray in the hobby.

73, Kevin (K9VIN)

## DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



It's August! Where has the summer gone? We say it every year and yet seem surprised every year. Radio is slow in August. The HF bands are in their typical summer doldrums. HF conditions typically start to improve in September as we approach the autumnal equinox. One thing that gets interesting in August is VHF and above.

One reason is we start to get tropo propagation. This happens when you get an inversion layer in the atmosphere where there is a warm layer of air above a cooler layer. This can create propagation paths of

hundreds of miles or more. It tends to be more effective on the higher VHF and lower UHF bands.

Another event is the Perseid meteor shower. Meteors are small rocks or grains of sand that travel through space. Occasionally their path will intersect with earth's orbit. Because of their high speed they heat up in the atmosphere, leaving a trail of ionized particles, and often a visible trail we call a shooting star. Radio waves can bounce off these trails. These trails can last anywhere from a fraction of a second (called pings) all the way to half a minute or more for a "blue whizzer". The larger the meteor, the longer the trail. Angle and relative speeds of the meteor also have an effect.

The earth is constantly being hit by meteors. Most burn up in the atmosphere, but occasionally one hits the earth and becomes a meteorite. Every day the earth's mass increases by several tons from meteorites and dust from those that don't make it to the ground. Many meteors are debris from comets, and when the earth passes through the orbit of the comet. At that time, the number of meteors increase, and it is a good time to use them for radio propagation.

Most meteor scatter (MS) activity is on 6 and 2 Meters. It is also possible on 10 Meters and up to 432MHz. It takes more ionization as the frequency increases and thus much more difficult. QSOs can go out to about 1200-1400 miles, limited by the height of the meteor trail.

In the past, most meteor scatter was done on SSB. You set up a schedule with another station, usually on an HF net. The stations would alternate 15 second periods sending call signs. When one station hears calls, they would start sending signal reports. The two stations would go through a defined procedure to exchange the information needed to complete a QSO.

For a QSO to be completed, you needed several well-timed meteors to occur. That did not always happen. My success rate was probably around 20%. Many times, you would hear a single letter or even just a syllable from the other station on a ping. The game changed about 10 years ago when K1JT introduced his WSJT suite of programs for specialized VHF communications. One was for moon bounce (EME) and one specially designed for meteor scatter. Later he came out with others for various propagation modes including WSPR, an HF propagation tool that a couple of ORC members have been active with. These are digital modes and you need an SSB transceiver and a PC (or MAC) and a way to interface them. You can also run WSJT on Linux.

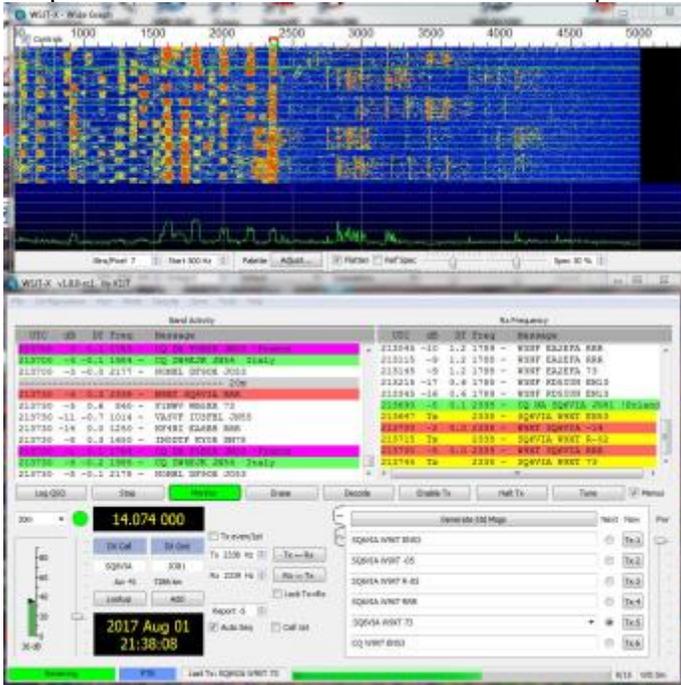
MSK144 is the meteor scatter mode. It sends the calls and exchanges repeatedly during 30 second transmission cycles. Because it sends so fast, it can take advantage of the much more common pings. A ping of about 1/3 second is plenty long. The QSO procedures are like phone meteor scatter. It has been a few years since I played with MSK144, but I used to have success rates well over 50% with 50 watts and a Yagi. Once I worked a station in Florida running 15 watts to a 5-element home brew Yagi on a step ladder on 2 meters.

With many meteors during the Perseid shower, there will be a lot of activity on 6 and 2 meters for several days around the predicted peak of August 12. I plan to be on starting a few days before the peak.

Speaking of 6 meters, by all reports the Sporadic E season was pretty good. Lots of US contacts with occasional openings to Europe and South America. One thing that really added to success is a new WSJT mode called FT8 which is specially designed for weak signal Es. In fact, it is possible to decode signals that are close to 20dB below the receiver noise. You often cannot hear the other station. This extra noise margin means a lot more openings are usable.

FT8 was just released in a preliminary software release at the end of June. It has caught on like wildfire. I got it hooked up a day before writing this column and have worked a couple of stations on 6M. Apparently last weekend there was a lot contacts made between the US and Europe.

A QSO can be made in about a minute and half. The sequencing has been automated which makes it simpler because of the time constraints. HF operators have been quick to pick it up too.



Each band has a frequency to set your radio to. Stations can be packed about one every 50 Hz inside the 2500 Hz or so bandwidth of the receiver. I had one receive period that I copied 14 different stations at once! In the first day or so of playing around with FT8 on HF I worked about 45 stations in 17 countries. The HF contacts were made while running 15 watts.

FT8 is a new mode and there has been some online discussion on improvements, and the second release will probably be out before too long. The general release of WSJT is 1.7. Version 1.8 RC1 has the new FT8 mode and is still considered experimental. The software can be downloaded for free at: <https://physics.princeton.edu/pulsar/k1jt/index.htm>

The screen above is a shot of W9XT working a station in Poland on FT8. He copied my 15-watt signal 14 dB below his receiver noise level.

Operating these modes is quite a bit different than other modes and takes some studying to figure it out. Be sure to read the documentation. Note that the documentation does not include instructions for FT8 but you understand how the other modes work it is not hard to figure out.

There is a pretty good YouTube video on getting started with FT8 at <https://www.youtube.com/watch?v=QoCngsKW9tc> There are a few things he is doing wrong in the video. He discussed setting the clock and audio levels but didn't have it set right. The user manual tells you how to do it. He also has some concepts wrong on how the decoding is done, but overall is a good video to get a feel of what it is and how to operate it. For those not experienced with operating JT modes getting a feel for how QSOs go, the video is better than the written manual.

Overall, JT8 is a great compromise in digging signals out of the noise and speed of operation. It will decode much weaker signals than RTTY and PSK31. It is not quite as good as JT65 for that, but uses 15 second transmission periods instead of 60 second ones for JT65. It also uses a minor fraction of the bandwidth JT65 does. Check it out.

Contest activity is lower during August. The summer running of the North American QSO parties are this month with CW on Saturday August 5 and phone is August 19. Basically, you send your name and state, 100 watts maximum. This contest was covered several times in the past. Rules can be found at [ncjweb.com/NAQP-Rules.pdf](http://ncjweb.com/NAQP-Rules.pdf)

Also on August 19<sup>th</sup> is the ARRL 10 GHz and Up Contest. It is interesting, with local operators working each other across Lake Michigan from the beaches. An inversion layer often forms just above the water, allowing propagation. Generating power on this band is difficult so most are only running a few watts into a small dish. Since W9GA is probably the only ORC member who has gear for this band I won't go into the rules.

DXpeditions this month are down as usual. TX5EG will be on from several IOTA islands in August by a group of French hams. Look for them using A35JP until August 6, then again August 17-22. 80-12 Meters, CW & SSB.

Lesotho is a country in the middle of South Africa. Years past it was fairly common, but I have not worked it many times in the last 10 years. Look for 7P8VRR and 7P8QM from August 18-21. They won't be strong, running 100 watts on 40, 20 & 15 Meters only.

As usual there are many vacation style operations with a single operator. You just need to be on the air at the right time to get them since they are usually part of a vacation and ham radio is fit into otherwise free time.

That wraps up August. FT8 is a great counter to typically poor August radio conditions. Try it!

## New FT8 mode from K1JT

de Tim, KA9EAK



K1JT and his team of developers have released a beta of WSJT-X with a new mode, FT8, Franke-Taylor, 8-FSK modulation. At the time of this writing the beta release that was made available earlier this month is now a release candidate. You can get more details here: <https://physics.princeton.edu/pulsar/k1jt/wsjt.html>.

I recently started operating with this new mode and even ran it while on my last camping trip, QRP with my new Elecraft KX2. It's very interesting and VERY VERY fast. A QSO may be completed in under two minutes! You can call CQ and have the WSJT-X software respond with a signal report to the first station to reply to your call and sequence through the rest of the QSO automatically.

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
162015	-17	1.6	884	~ CQ W9VLE EM59	161945	-2	1.2	622	~ W5ENU N4ULE +00
162015	-14	0.8	999	~ AF6N KYOR DM78	162000	Tx		619	~ N4ULE KA9EAK EN64
162045	-7	1.3	626	~ W5ENU N4ULE RRR	162015	-14	1.3	622	~ W5ENU N4ULE +00
162045	-5	1.4	1000	~ AF6N AA7IX DN71	162030	Tx		619	~ N4ULE KA9EAK EN64
162045	-10	1.1	1141	~ CQ AHOU CM97	162015	-17	1.6	884	~ CQ W9VLE EM59
162115	-16	1.3	629	~ W5ENU N4ULE 73	162100	Tx		884	~ W9VLE KA9EAK EN64
162115	-8	0.9	1001	~ AF6N AA7IX DN71	162130	Tx		884	~ W9VLE KA9EAK EN64
162115	-9	1.1	1141	~ KYOR AHOU +03	162145	-6	1.3	620	~ KA9EAK N4ULE -11
162145	-6	1.3	620	~ KA9EAK N4ULE -11	162206	Tx		884	~ W9VLE KA9EAK EN64
162145	-14	1.1	1141	~ KYOR AHOU +03	162209	Tx		884	~ N4ULE KA9EAK R-06
162215	-13	1.4	620	~ KA9EAK N4ULE -11	162230	Tx		884	~ N4ULE KA9EAK 73
162215	-8	1.2	1142	~ KYOR AHOU RRR	162215	-13	1.4	620	~ KA9EAK N4ULE -11

Along with the other protocols or modes in WSJT-X, JT9 and JT65 among a few others, FT8 is another tool in your toolbox for making contacts in the variable band conditions we'll find ourselves in for the near future.

There has been a lot of activity with the new mode and a lot of discussion about it including some good blog posts by Bas, PE4BAS - <http://pe4bas.blogspot.com/2017/07/ft8-digimode.html> and John, AE5X - <http://ae5x.blogspot.com/2017/07/ft8.html> among a lot of others. If you're looking for something new, download WSJT-X and give FT8 a try.

## THE COMPUTER CORNER - No. 234: Top Freeware Picks

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



My favorite site for safe freeware, [majorgeeks.com](http://majorgeeks.com), publishes a list of “absolute best, five stars rated, totally free programs for your computer”. These do not have any hidden toolbars or third-party programs, and they are not wrappers (bundeware). This list changes as new, good software is written, so go read the list as you need it at the following URL: <https://tr.im/1Wxcl>. Here is a sample of a just a few of the categories with just a couple of the picks. The person writing these descriptions is Tim Tibbetts, one of the two majorgeeks honchos.

### All-In-One Suites

**Simple System Tweaker:** There is a handful of safe, tested tweaks most geeks will apply to a computer. This does it for you and saves potentially hours.

**Advanced SystemCare:** ASC is an all-in-one suite to keep your computer running fine and forget about it. Majorgeeks likes Driver Booster from them as well.

### Anti-Spyware & Anti-Malware

**Malwarebytes Anti-Malware:** Malwarebytes is one of our all-time top downloads and for good reason. It's simple, fast and effective. You can purchase full time protection so you don't get infected again.

**SUPERAntiSpyware:** SUPERAntiSpyware might not be a recognizable a name to you but don't let that stop you. SUPERAntiSpyware has saved majorgeeks a few times when other programs have failed to detect or remove a problem.

### Anti-Virus Protection

**Avira Free Antivirus:** Avira has good speed, accurate detection and removal and has been consistently rated 4.7 out of 5 by our readers. A pro version is also available.

**Microsoft Security Essentials:** Microsoft finally got into the game with free protection for all Windows users in 2010. While the detection and removal is very good we feel it can be a bit slower for power users.

### Backup

**Macrium Reflect:** I have used Acronis True Image for years but it's not free and it has almost no quality competition. Macrium Reflect is the one program that comes really close. Backup files, a complete image and much more.

**Dropbox:** No need for a second hard drive, external drive or DVD. With Dropbox you can use the Cloud to back up your important files. You can also share and sync.

### Browsers

**Pale Moon:** As you're about to notice, geeks tend to lean toward Firefox over Chrome and Internet Explorer. Hence there are a few awesome alternatives that tweak the Firefox code. This one promises 25% more speed and is a 5 star program all day long.

**Cyberfox 64-Bit Web Browser:** If you want a 64-bit version of Firefox, here you go. And it's pretty awesome.

### CD/DVD/Blu-Ray Burning Tools

**CDBurnerXP Portable:** I usually have this one on my computer. Light, and easy to use. The installer version always has some sort of bundeware so you want this portable version to avoid that.

**InfraRecorder:** InfraRecorder is another often overlooked tool. It's small and has plenty of features similar to CDBurnerXP.

### Data Recovery

**Wise Data Recovery:** Another tool that is part of an entire suite of tools and a really good one too. Often overlooked, you would be mistaken to do so.

**Recuva Portable:** For free, Recuva is an excellent choice. It's fast, easy to use and can even try to recover lost emails, deleted music and Microsoft Word documents or temporary files.

### Drive Cleaners

**Wise Disk Cleaner:** Do you find CCleaner too conservative? Wise Disk Cleaner can often free up an additional gigabyte or more removing files CCleaner won't touch. I happen to love it personally.

**Privatizer:** Privatizer takes the traditional drive cleaner approach but adds in an additional focus on security as well.

**CCleaner:** CCleaner has been around and highly rated for many years. It also has a start-up manager, registry cleaner and shortcut to remove programs.

### Driver Updaters

**Driver Booster:** I've used this one for years and it works great. It does offer to install one of their other programs at the end, but since it's not malicious or a wrapper it makes it onto the list.

**Driver Easy:** A newer program, this one also can back and potentially repair driver problems.

OK, that is a big enough sample. Here is a complete list in alphabetical order:

1. All-In-One Suites
2. Anti-Spyware & Anti-Malware
3. Anti-Virus Protection
4. Backup
5. Browsers
6. CD\DVD\Blu-Ray Burning Tools
7. Data Recovery
8. Defragmenting Tools
9. Diagnostics
10. Drive Cleaners
11. Driver Updaters
12. Email Clients
13. File Compression
14. Graphics
15. Multimedia
16. Microsoft Office Alternatives
17. Partitioning
18. PDF Alternatives
19. Text Editors
20. Uninstallers
21. Honorable Mentions

Remember, these are the top-of-the-top, and they are all free! The fact that they are free does not mean they are not good. Indeed, many are better at what they do than the pay-for alternatives. Visit [majorgeeks.com](http://majorgeeks.com) to see your options. Happy Computing!

# Vintage Amateur Radios

de Bill Shadid (W9MXQ)



Welcome to the new Vintage Radio Column in the ORC Newsletter. The plan is for this to be a monthly report on some interesting piece of vintage ham radio equipment or a complete station setup. I am looking for guests to share the limelight with me in this pursuit.

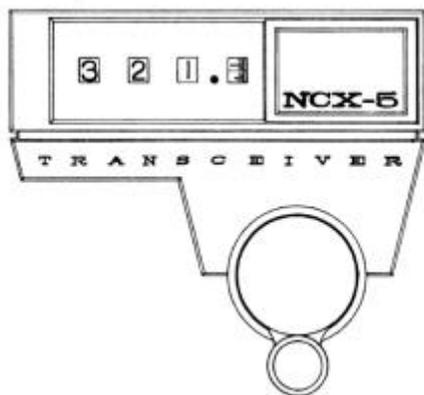
This month's edition focuses on 1964, when National Radio Company, Inc., was moving into the full featured, five band HF Transceiver market. Hot off their successful NCX-3 Tri-Band (80, 40, and 20 meters) SSB/AM/CW HF Transceiver, National was now promoting their unique NCX-5 80-10-meter SSB/AM/CW Transceiver. At the same time, National was building a competition station without equal at the time with a wide range of accessories. Take a minute to look at this complete NCX-5 Station:



**Left to Right are the National NCX-A AC Power Supply/Speaker, the NCX-5 HF Transceiver, the VX-501 External VFO, the NCL-2000 Linear Amplifier, and the HRO-500 Receiver. The HRO-500 here is acting as a second receiver with the NCX-5, when desired.**

The NCX-5 Transceiver covered the 80-10-meter bands without 160 meters or the WARC bands we have today. Most radios of the day lacked 160-meters because of differing coverage and power limits depending on the area of the country. In those days, LORAN radio occupied 160 meters along with the amateur operators. We were secondary there. The transceiver had a 200-watt final with an expected output of 100 watts. The radio was equipped with a very effective 8-pole crystal lattice filter that provided a 2.8 kHz bandwidth at -6dB and a shape factor of 1:1.7 – very effective even today.

Two unique features were “Transceive Vernier” control, as National named it, and digital frequency readout. The “Transceive Vernier” was the same as what we today call RIT or Clarifier. That was rare and shared pretty much by just National and Hallicrafters in those days. The most unique feature of the two was digital frequency readout. National did that with a mechanical (counter) mechanism as shown below:



The readout shown, assuming the bandswitch was set for 14 MHz operation would show 14.321 MHz. If you switched the bandswitch to 3.5 MHz, that would indicate 3.821 MHz. The mechanism would change to show the proper frequency for a band that began on 0.5xx MHz – so no guesswork. National went to great lengths to keep the mechanism linear across its various 500 kHz bands. The main tuning capacitor was very complex and had several tools in its design to adjust for linearity. Note a graphical, moving band scale on the right to show tenths of a kHz and more.

The VX-501 External VFO allowed for separate frequency excursion between receive and transmit. In a true oddity of design, the optional National XCU-27 Crystal Calibrator was mounted in the VX-501 when the External VFO was present. The External VFO, referenced as the Console by National, would act as sole frequency control, receive only control, transmit only control, or allow completely control by the transceiver VFO. Today, while the NCX-5 Transceiver is available with a little research, the VX-501 can be very hard to find.

The NCL-2000 Linear Amplifier was a full power amplifier in its day. It has a mode switch to differentiate between 1,000 watts input for CW or 2,000 watts input for SSB as was the custom in the 1960's. The NCL-2000 in my collection seems willing and able to produce at least 1,300 watts output from its RCA (now Burle) 8122 Ceramic Tetrodes. The 8122 has a dissipation capability of 400 watts per tube. Unlike most of today's amplifiers, the NCL-2000 is grid driven and therefore can run full power with as little as 20 watts of drive. The exciter feeds in to a dummy load in the NCL-2000 input circuit and therefore always sees a 50-ohm load. This amplifier is a complete, standalone unit in a single cabinet including a built-in 120/240 VAC power supply and blower feeding a pressurized cooling system for the power tubes.

You will recall a recent ORC meeting when Pat Volkmann, W9JI, presented his National HRO-50 Receiver (first sold in 1950). We also saw a much older National HRO-M Receiver (first sold in 1941) from my collection. The HRO-500 that is part of this article is the successor to the radio just following the HRO-50, the HRO-60 (first sold in 1953). The HRO-500 is all solid state with dozens of socketed germanium transistors and no plug-in coils as you saw with the older HRO's shown by Pat and me. The HRO-500 covers 0-30 MHz (but required a separate pre-amplifier for effective LF operation). Indeed, it was a very early, high performance, commercial grade solid-state radio that focused on shipboard, commercial, and the amateur users. It was the last HRO series radio marketed to amateurs. (The last HRO, the HRO-600, was never sold outside of the commercial market.) While National advertised the HRO-500 in the configuration shown in the picture at the beginning of this article, they offered no information on how to integrate the receiver with the NCX-5. In those days, it was expected that the user would just "figure it out." And we did!

The last item needs little description – the National NCX-A AC Power Supply/Speaker Console. This power supply is quiet and unlike a lot of its competitive radio power supplies, was not straining to provide the power needed by the radio. It was the matching power supply to the earlier NCX-3 Transceiver, and also to the later NCX-200 HF Transceiver. There will be more on the NCX-200 in a later column.

This National station is in my personal collection. It comes from long time fellow collector and trading partner, Bob Bailey, W9DYQ, of Shoreview, MN. Bob and I have been friends since childhood. He is an avid CW operator – and shrugs off SSB, AM, and FM as those modes that use a "Shadid Device." (His reference to a microphone.)

## **UPCOMING EVENTS**

**Membership meeting – August 9, 2017**

**Corn Roast – August 12<sup>th</sup> – Cancelled due to lack of participation**

**Lighthouse Weekend – August 19 and 20**

**ORC Fall Swapfest at Fireman's Park – September 23, 2017**

# ORC Field Day – June 24 & 25, 2017

De Tom (W9IPR)

I found the camera, so here are a few photos from Field Day. See the ORC web site for more photos.



# Ozaukee Radio Club

## July 12<sup>th</sup>, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary

First VP Pat V. (W9JI), who presided over the meeting in President Kevin S.'s (K9VIN) absence, called the meeting to order at 7:31 PM. All the attendees introduced themselves.

### **Announcements:**

Tom R. (W9IPR) made remarks about stealth antennas for the home.

Bill Shadid (W9MXQ) found a 200-watt Viking AM transmitter.

Tom R. expressed thanks to the people who write articles for the newsletter. There will be a new column on vintage radios.

Bob S. (W19BOB) showed his Elecraft KX-2 transceiver. It is very small and easy to set up.

Gary D. (K9DJT), in the recent 13 Colonies Special Event, Gary made contact with 11 colonies on his mobile station. Art D. (AC9CD) swept all 13 colonies in that same contest.

### **Program:**

Nels (WA9JOB) made a presentation about a recent engineering project in Buffalo, NY he had done, which included the detuning of two cell towers near four AM station transmitters so that the cell towers wouldn't re-radiate the AM stations' signals.

### **Auction:**

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

### **Officer Reports:**

President – The President was not in attendance, so there was no President's Report.

Pat V. (W9JI), 1st VP – No report.

Tom T. (KC9ONY), Repeater VP – No report.

Ben E. (K9UZ), Secretary – The minutes from June's meeting is in the newsletter. Motion to accept the minutes, subject to amending it to clarify that Mike H. (KD9GCN) is the new CLUB TRUSTEE, not the Repeater Trustee, and that there was no Treasurer's Report at the last meeting, was made by Dave B. (N9UNR); seconded and passed without debate.

Dave B. (N9UNR), Treasurer – Motion to accept the Income & Expense Reports for May and June was made; seconded and passed without debate.

### **Committee Reports:**

Scholarship – Tom R. and Ed R. (AA9W) went to the South Milwaukee swapfest and had \$85.50 in sales.

Field Day – Ken B. (W9GA) gave his report on the results of Field Day 2017. Thanks to everyone who showed up. There was a good crowd, including new members. The final score (preliminary) was 12,708. Over 3,600 QSLs were made. This is the second best showing since 2011, when there were over 4,000 contacts. The GOTA station did well. Things to consider for next year: We could use additional operators; We have to get word out to the media outlets, modify the tent and make new stakes and do something about the antennas. Jim A. (K9QLP) thanked the people who made sure safety measures were in place.

### **Old Business:**

None.

**New Business:**

Tom KC9ONY said ORC member volunteers are needed for set-up, operation, and tear-down for the ILLW Lighthouse event in Port Washington; otherwise the event will not happen.

Regarding the Corn Roast, a volunteer is needed to take charge of the event. Pat V. asked for a show of hands from those planning to attend. About six people raised their hands. Dave B. suggested that since there doesn't seem to be much interest in the event this year, perhaps he should cancel the reservation he made for the Pleasant Valley Nature Preserve. Pat said let's wait a few days before making that decision.

**Adjournment:**

A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 9:26 PM.

**Attendance:**

There were 36 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

## **AGENDA**

*August 9, 2017*

1. 7:00 – 7:30 PM – Networking and rag chew
2. Call to order: Introductions. Kevin Steers (K9VIN)
3. Announcements, bragging rights, show and tell, upcoming events, etc.
4. Program: Bernard Barr, K9JAT, Wire and Materials Resistivity.
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR)
8. Presidents Report – Kevin Steers (K9VIN)
9. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
10. 2<sup>nd</sup> 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. Fall Swapfest
  - B. Corn Roast
  - C. Other:
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizzeria

Return undeliverable copies to

### **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, August 9<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting

Wire and Materials Resistivity

By Bernard Barr, K9JAT



# 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

September, 2017

Number 9

## From the President

*de Kevin Steers (K9VIN)*



Wow, where did the summer go! It is hard to believe that the Spring Swapfest, Field Day, and Lighthouse day are behind us already, and the Fall Swapfest is just around the corner. September 23 from 6:00 am until 1:00 will be our outdoor event at Cedarburg's Fireman's Park.

Honestly, with the beautiful motorcycle weather and just being outside enjoying the summer, I haven't been on the airwaves much at all last month. So many projects on the honey-do list that need to be done before snow flies, has kept me busy. I am looking to re-prioritize my radio activities, very shortly, as the autumn winds begin to blow.

On the bench: I recently found a great deal on a spool of stainless steel welding wire (OK, two), so I will be experimenting with a fan dipole and other antenna designs. I probably have a couple of thousand feet of wire, but in doing some research after the purchase, I may be having some buyer's remorse. It appears that Stainless is NO WHERE near as good a conductor as copper, so I may be building dummy loads, after all. I will certainly report back with my findings. I also learned that soldering stainless steel is no walk in the park, so I may have to resort to wire nuts in my construction method. On a funny note, when I went to the welding supply shop to get liquid flux (which was supposed to improve my soldering chances), I accidentally asked him if they carried liquid solder, at which point he looked at me as though I asked him if they had Prince Albert in a can. 😊

Please consider volunteering to help keep this great club going. It is not too early to throw your hat in the ring as our elections draw near. We need fresh blood in the ranks to continually educate future generations on how to keep this well-oiled machine chugging. Lastly, please consider writing an article on a recent project, something you learned, or even something only remotely associated with this fine hobby. 73

# DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



September is here and with it football and the start of the fall radio season. The W9DXCC convention in the Chicago area in the middle of September has traditionally been the fall kickoff for radio for me.

W9DXCC usually draws about 300 attendees, some coming from long distances, sometimes as far as Europe. It is a good time and coincides with improving propagation that improves as we approach the autumnal equinox.

The big question is what kind of band conditions can we expect during the cold weather months? We are heading down towards the bottom of the sunspot cycle, which most models predict will be in 2020. There is some evidence that the next cycle has already begun (there is some overlap between new and old cycles).

Sunspots at the start of the cycle occur at high latitudes. As the cycle progresses they move towards the solar equator. If you watched the August solar eclipse you may have seen some sunspots on pictures of the solar disk. They were near the equator, but there have been some spotted at higher latitudes in recent months.

An early solar minimum would be very welcome. The last one lasted much longer than usual and had lower minimums than usual. It was so low that we got more ionization from cosmic rays from deep space than from our own sun. Longer and lower minimums generally indicate that the next peak will be lower. The last one was nothing to write home about.

Last month I discussed the new digital mode FT8. Coincidentally Tim, KA9EAK, also wrote about FT8 in the same issue, a small indication of how popular it has become. One of the big advantages is the ability to pull our signals we can't hear with our ears.

One morning I went on 17 Meters and tuned up and down the band. Nothing heard. No spots on the DX cluster. Band must be dead. I tuned the rig down to about 20 watts and loaded up my 40 Meter beam with a tuner. Essentially it acts as a long dipole on 17M, with no real gain. I started calling CQ on FT8 and a few minutes later I got a call from a station in Sweden. He gave me a report of -14, that is 14 dB below the receiver noise level. Generally, you can't even detect a signal that is more than 10 dB below the noise level with your ears.

The amazing capabilities of FT8 and similar modes have gotten people wondering if there are propagation modes that we didn't know about. We don't hear anything on CW or SSB, and the propagation programs tell us the bands should not be open. What's up? Propagation guru Carl Leutzelschwab, K9LA, had a very interesting article on his website considering why we can make contacts with the digital modes on "dead" bands. [http://www.k9la.us/Aug17\\_Bonus\\_-\\_What\\_Mode\\_of\\_Propagation\\_Enables\\_JT65-JT9-FT8\\_Revision\\_1.pdf](http://www.k9la.us/Aug17_Bonus_-_What_Mode_of_Propagation_Enables_JT65-JT9-FT8_Revision_1.pdf). It is a very interesting read.

Contests pick up in September. The ARRL VHF contest starts Saturday September 9 at 1800 UTC (1 PM local) and runs through 0259 UTC Monday (9:59 PM Sunday night local). The chances for 6 Meter Es openings are not nearly as great as in the June version, but I expect

more interest with people using FT8 to work stations too weak with other modes. Rules at [www.arrl.org/september-vhf](http://www.arrl.org/september-vhf).

Since you already have your station set up to run FT8, you might as well get on for the CQWW RTTY contest. You just need different software to run RTTY. I like MMTTY, but there are others, most are free. The contest starts at 0000 UTC on September 23 (Friday night 7:00 PM local) and running for 48 hours. Unlike the other CQWW contests you can work US stations, opening the opportunity for many more contacts. The exchange is also a bit different from the other CQWW events. You still send signal report and CQ zone (zone 4 for us) plus you add your state. This is a good way to pick up states and countries on digital for DXCC, WAS, etc. Full rules at <http://www.cqwwrtty.com/rules.htm>.

DXpeditions pick up in somewhat in September. The one I think is most interesting is to Cocos Keeling in the second half of the month by W7GJ. The exact dates are not set, but the call sign is VK9CGJ. There is one catch. This is a 6 Meter EME DXpedition. That's right, 6 Meter moon bounce. Increasingly often big DXpeditions are adding EME and some (like this one) are just for moon bounce. As far as I know, Ken, W9GA, is the only ORC member with 6M EME capabilities.

More down to earth (if you will excuse the pun) is an operation from Botswana by a group of Russian hams. They will be using A25 callsigns September 15-25. 160-6M, CW & SSB.

Further north on the African continent Mauritania will be activated September 16-28 by a group of Czech hams using the call 5T5OK. 160-6M, SSB, CW an RTTY. Amplifiers are not allowed there, so they will be running 100 watts.

The Galapagos Islands used to be very common, showing up for nearly every major contest, especially HC8N. It has not been heard often in recent years. Checking my log, I see that the last time I made a contact there was with HC2AOB/8 in 2014. Before that, the last time was in 2008. The next opportunity will be September 14-21 with the call HD8M. This international group will be on 160-6 Meters, CW, SSB & Digital.

A little closer to home, St. Pierre & Miquelon will be activated by a European group September 17-23. They will be using FP/home-callsign. 160-10M.

September brings cooler weather, football and better radio conditions.

Go Packers! Go Badgers!

# THE COMPUTER CORNER

## No. 235: *A Few Reasons Why Linux is Better than Windows*

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



Firefox, Flash, Java, Skype, Thunderbird, Pidgin, Hexchat, Steam, Dropbox, Blender, Minecraft. **Audio:** Spotify, Rythembox, audio codecs. **Video:** VLC Media Player, video codecs. **Video Editing/Drawing Software:** Pix, Gimp, Inkscape. **Libre Office:** Writer, Calc, Impress, Draw.

Recognize any of the above? I bet you do. They are all programs you must download and install after you install Windows, to gain their intended use. However, they are all automatically installed with “Serena”, Linux Mint 18.2 Cinnamon. That is one big positive check mark in favor of the latest Linux (Linux is always **free**). By the way, you can open or save files that are completely compatible with Microsoft Word (\*.doc or \*.docx), using Libre Writer.

Same compatibility for Libre Impress and PowerPoint. Also by the way, the latest Linux installations also include software that will let you run Windows programs (Wine, Virtual Box).

Here is another reason. Typically, an update from Microsoft includes the installation of one or more files, followed by a request for immediate reboot. Sometimes, after the reboot, another set of updates is suggested, based upon the new set that you just installed. So, download and install again is your option, followed by yet another reboot. Sometimes this cycle of install and reboot takes several hours. Furthermore, it is not unheard of for an update to screw up some other program or function, because the dependencies between programs are not always worked out properly by Microsoft.

In Linux, steps have been taken to prevent such glitches. Linux contains an “Update Manager” that you can easily find and activate to check for needed updates. If it finds any, clicking its query will download and install the updates, plus any updates upon which the updates are dependent. All automatically. In Linux, dependencies between programs are sought out and quickly corrected or adjusted for. You are virtually guaranteed that everything will continue to work after the update. It is just plain slick!

Moreover, when you have installed the updates (and installation is commonly very quick), there is NO NEED TO REBOOT. The installation automatically writes the new software to its assigned slot, stops, and erases the old software, and starts the new version. They seem have broken the old install/reboot/ install/ reboot sequence that takes so much of your time in Windows.

There is also an Update Manager icon in the tray, should you want it. Sliding your pointer over it will reveal something like an “Updates Needed” or “Your Computer is Up-To-Date message. Indeed, if you look at the icon closely, a checkmark in its middle means you are all up-to-date. If the sliding the pointer over the icon shows Updates Needed, a double-click of the icon will start the update process. Almost always just a couple of minutes. And, no reboot needed. That really impresses me!

The word is that Microsoft wants to reorganize your computer, with your personal files off in the cloud somewhere, and not on your hard drive. Then it will charge you a yearly fee to access

your files, and a fee for the software (Office) to modify or update them. This is just what I have heard; it is not verified. But if true, why would anyone want Microsoft anymore? The new versions of Linux can do anything Microsoft can do, and Linux plus its programs are all free. Moreover, Linux respects your privacy, and the ownership of your machine by you! And your files stay on your machine.

What will you be using next year? Happy Computing!

## Vintage Amateur Radios

de Bill Shadid, W9MXQ



This month we will be in the 1960's once again with a lower price entry from National Radio Company, Inc. National, by that time, in my opinion, had a difficult time staying in one segment or another of the amateur radio market. They had focused on what they thought was a premier radio, the NCX-5 HF Transceiver spotlighted in last month's column. But, The Heathkit Company was ruling the market with their very popular SB-Series Transceivers, Receivers, and Transmitters.

National decided to take aim at the popular Heathkit SB-100 Transceiver. They pushed the envelope in the marketplace by offering all the features of the kit-built Heathkit SB-100 in a factory assembled radio they called the National 200. It sold for the same price as the Heathkit.



**Left to Right are the National NCX-A AC Power Supply/Speaker, the National 200 HF Transceiver, and an Eico 717 Electronic Keyer that shows well with this station. Also shown are the very popular, at the time, Turner 254C "Crystal SSB Microphone." At the lower right is the much later Bencher BY-1 Keying Mechanism.**

The National 200 Transceiver covered the 80-10-meter bands with SSB, CW, and AM modes. The transceiver had a 200-watt input final power with an expected output of 100 watts. As with the NCX-5 Transceiver discussed last month, the radio included a pair of the very popular sweep tubes of the day, the 6JB6. That tube was used by National and the increasingly popular offerings in Transceivers and Transmitters from R. L. Drake Company. While cost cutting was evident in this radio, it was equipped with a very effective, very high quality, 8-pole crystal lattice

filter that provided a 2.8 kHz bandwidth at -6dB and a shape factor of 1:1.7. That design would be effective to this day.

Sadly, National felt it necessary to exclude the “Transceive Vernier” control from the NCX-5 that allowed a minimal separation of receive and transmit frequency. But, in defense of National, their competition, the Heathkit SB-100, and the various offerings from Swan, Collins, and Drake did not offer that feature.

National offered two AC Power Supplies for this radio – the deluxe National NCX-A AC Power Supply/Speaker Console (pictured above) and the economical AC-200 Power Supply (see left). The AC-200 offered no outer decorative enclosure or speaker. Speaker connections were available at the Power Connector on the back of the transceiver. Like all National Power Supplies of the time, its design included a choke in the HV circuit. This was likely tied to National’s long history with military radio and the design requirements for stable and dependable power. Read on for some problems with the low-cost AC-200.



The AC-200 Power Supply in this story is one that has been problematic since its first use. This has been as much due to a lack of time for this radio as to the obvious problem with the power supply. The original owner and I had ignored its problems with destroying rectifier diodes. In the end, the problem was simply a filter capacitor in the bias power supply circuit wired in reverse polarity. In defense of National’s staff of assemblers, the capacitor was shown incorrectly wired on the schematic, shown incorrectly mounted in pictorials, and therefore the assemblers simply followed directions. The moral of the story is that electrolytic capacitors do not like to be wired in reverse polarity! They *will* make themselves known! The issues found in this AC-200 Power Supply have been well documented on at least one Reflector for National Radio. So, National managed to do more than one of these.

The last item was added as a little extra for this article. Electronic Instrument Company (Eico) moved into the SSB business with the Eico 753 HF Transceiver and the Eico 717 Electronic Keyer in the same period. The Transceiver was by all accounts a technical failure but the matching Keyer was widely sold and many are still in use today. It was non-iambic, as were most of the day, and used six vacuum tubes to generate the dots and dashes. Like its competition of the time, it used a neon bulb oscillator to generate the rather “raspy” sidetone to monitor the code. Many pictures of vintage stations include this very good Electronic Keyer of the day.

National 200 Transceivers are very hard to find these days. I am not sure of the reason for their rarity as they are not particularly collectable. The fickle nature of collecting seems never to be logical. Of special interest is that this transceiver, throughout its product life cycle, was marketed by National both as the National 200 and as the National NCX-200. There was no timing on the names – it seemed to depend on the mood of their marketing department when advertisements were placed. I have product brochures for this radio shown as the 200 and the NCX-200 – brochures that are identical in every other way.

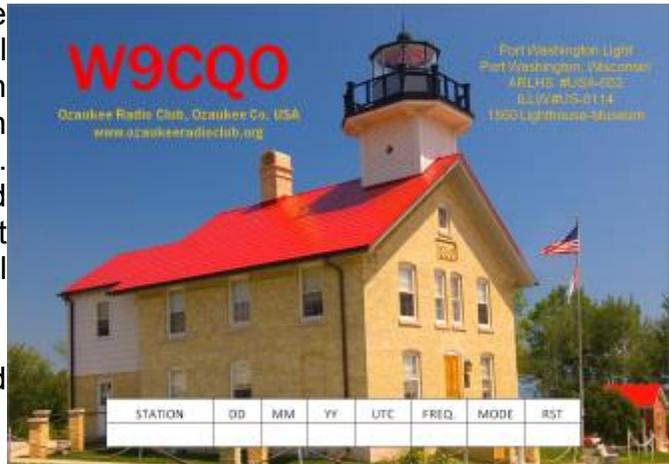
This National transceiver was in my personal collection – on loan from its original owner, Gary, WA9BJU, of Bloomington, Illinois. Gary and I have been friends for most of our lives. Today, the Transceiver and the AC-200 AC Power Supply have been sold and are awaiting pick-up by a ham in northern Wisconsin.

# International Lighthouse Lightship Weekend 2017

de Tom Trethewey, KC9ONY

On Friday, August 18, 2017, members of the Ozaukee Radio Club and LeFrog (Local Emergency Field Operating Group) gathered on the property adjacent to the 1860 Light Station and Museum in Port Washington, Wisconsin. The purpose was to set up a 30 foot tower and tri-band beam for use with a special event station in preparation for the International Lighthouse Lightship Weekend.

We registered as lighthouse US0114 and used the W9CQO club call sign again this year.



Tom Murtaugh, W9VBQ took a picture of the 1860 Lighthouse and Gary Drasch, K9DJT created the QSL card for this year's event.



LeFrog supplied the 30 foot tower, tri-band beam, and Icom IC-9100 transceiver. In the past, we have tried different antennas, but found that using the tower and beam provided us with the best results.

The band conditions were up and down, but we made 100 contacts on Saturday and 97 contacts on Sunday. The QSL card requests are starting to come in now. We lucked out with the nice weather - not too hot and no rain, though we had dew in the mornings. due to the temperature drop.

We also set up some D-STAR equipment. We had an Icom ID-1 1.2 GHz radio to the LeFrog W9FRG data repeater in Grafton, WI, to access the internet and practice sending data. We had an Icom IC-2820H VHF/UHF radio accessing the Milwaukee KC9LKZ repeater system. We were fortunate to talk to Ron G0AWL in Cornwall, England, though he wasn't at a lighthouse.



Setup and tear down went well, and no one was hurt. Many thanks to those who helped setup, tear down, operate, observe, and encouraged us this year. They were: Mark AB9CD, Tony AB9PN, Steve W9MCU, Tom AA9XK, Gary K9DJT, Will K9OO, Loren N9ENR, John W9FAD, Bill AC9JV, Mike KD9GCN, Bill KD9HLN, Jon KD9GAE, Stan WB9RQR, Nancy KC9FZK, and Tom W9VBQ.



I hope I didn't miss anyone else that participated. If you'd like to participate next year, then mark your calendar for the third weekend in August. It's not a contest but a fun, non-pressure event.

The purpose of the special event station is "to expose amateur radio and the plight of lighthouses to the public." If you don't have HF experience, this is a good way to get some, so consider joining us next year!

More information about the event can be found at the website: <https://illw.net/>



## Another Great Program

At the August meeting, we had a great program with a presentation by Bernard Barr, K9JAT (photo left), related to conductors, their material and size. Both Bernard and W9ZMR, Ken Piletic, made the trip from Illinois. His comments on conductor materials and insulation were much appreciated, and made members think somewhat differently about issues related to the conductivity of metals. Thanks again Bernard (and Ken) for coming all the way from a neighboring state to enlighten us!

## UPCOMING EVENTS

### Membership meeting – September 13, 2017 - meeting program

Ham Radio Outlet has picked-up where AES left off and they are holding a SUPERFEST!  
This event, on September 29th and 30th is also going to be  
our Wisconsin Section ARRL Convention.

ARRL HQ is sending Bob Inderbitzen and the ARRL booth. Kermit Carlson W9XA our Regional Director will be there as will Patrick Moretti (KA1RB) our section manager. All ready to answer your questions, renew your membership and just plain say hello and exchange a handshake! Certainly hope to see you there!

# The ORC Regional Fall Swapfest – Sept. 23

De Tom Ruhlmann (W9IPR)



Primarily, this swapfest is fun. That is reason enough to attend and volunteer to help. This one is pretty easy to host in that it is outside (unless you want to rent a table inside for \$10) at Fireman's Park on September 23 and really only involves setup, ticket sales and parking and then teardown. Volunteers are home by early afternoon after having a good time visiting and browsing vintage and current equipment that individual HAM's are selling from the trunk of their vehicles etc.

The food and refreshments are being handled by the high school robotics club with the profits to support their activities. Inside will be Tower Electronics if you need some new stuff.

The swapfest event profits go to the ORC operating fund to pay such things as repeater expenses, facilities rent and other financial obligations. More importantly its fun and you get to know the other members.

## **We will need membership participation with the following:**

Setup Friday evening

Admissions & ticket sales Saturday – Jim Albrinck - 6 AM to Noon

Parking – Stan Kaplan - 6 AM to 8AM and 8 AM to 11AM

Sound system – Mike Harrington - 6 AM to Noon

Scholarship Sales – Tom Ruhlmann - Friday afternoon setup - Saturday sales and teardown

ORC equipment collection and return to the barn – Tom Ruhlmann - starting at about noon.

Assist Tower Electronics teardown starting at about noon

Assist Robotics Club concession teardown starting at about noon

Grounds restoration - Jim Albrinck - starting at about noon

A total of about 15 volunteers can get it done and have a good time while filling the club operating coffers. Naturally, the volunteers do not pay admission while all others do. If you wish only to browse and/or have a selling spot it only cost the price of admission, \$5.00 and you will also get a chance on the \$50 door prize.

**We will have a meeting of the committee and those interested in helping immediately following the membership meeting.**

Call me at 377-6945 to volunteer to help, or sign up at the meeting.

## This Month in ORC History: 40 Years Ago

Edited by Ben Evans, K9UZ

(The following is an edited version of the minutes from the ORC meeting on September 14, 1977.)



Meeting was called to order [at] 1938 CDT. Minutes of the August 10, 1977 meeting were read and approved.

[The treasurer reported] \$1,082.20 accounted for. Motion for approval – WA9AWO / seconded WA9UJK. It was advised that the corn roast funds had to be settled.

W9LO advised of the overall success of Field Day.

WA9KFI introduced himself as a new member. QTH of Port Washington.

WA9UVK reported on the success of the corn roast despite constant rains.

WA9BMA commended WA9RPB on his article in the Hamateur Magazine.

WA9BMA received a letter from the Hamateur, [dated] July 11, 1977, which referred to their problems in preparation of a membership roster of all subscribers of the magazine. They recommend timely submittal of a complete club roster. It was felt that periodic receipt of membership dues from our club members hindered the completion of a complete roster to eliminate this problem. Discussion to follow.

WA9JOB complained of the Hamateur being received late due to the mailing by bulk rate method.

WA9UDZ made a motion for the club secretary to prepare an invoice for a December 1977 mailing, to advise members of the [upcoming] meeting and membership dues. WA9UVK seconded. Approved.

WA9BMA advised that WAD had been sold, and as a result sent a letter to the buyer requesting consideration for acquisition of excess equipment at the site be given to the club. WA9USA advised of the various pieces of equipment that may become available from WAD. WA9UJK motioned, amended by WA9AWO, and seconded by WA9VQD, that the board of directors use their discretion in acquiring WAD equipment. Expenditure not to exceed \$300.00. Motion approved.

WB9PAS advised that the repeater remains on low power of about ten watts. The bank split site project is still progressing. The solid-state COR has been built. It was requested that the old repeater parts be taken to Radio Expo to be sold.

A motion was made by WB9PAS that the repeater group be authorized to sell its surplus equipment – proceeds to go to the repeater group's treasury. Seconded by WA9USA. Approved.

[WB9PAS] requested more volunteers for the repeater shack insulation project.

[WB9PAS] advised that the interference problem on the repeater is being worked on with expected success. Advised that all 450 equipment is in hand for the autopatch project.

Repeater group meetings were called for Sept. 28<sup>th</sup> and October 26<sup>th</sup>, 1977.

WA9BMA requested feelings on the past programs and future program requests. WB9OHY suggested programs from local expertise, re: TTY, ATV, PC board construction, and OSCAR.

WA9BMA requested that WB9PAS establish a committee for the Post-Christmas/Pre-Valentine's Day Party. WB9PAS requested pre-registration for the party be made. Further discussion and committee formation to follow.

WA9AWO advised of the Walk-a-thon scheduled for October 15<sup>th</sup>, and requested volunteers to establish the required communication effort.

Motion to adjourn by WA9UVK / seconded by W9DQS.

Adjourned 2123.

## Ozaukee Radio Club Meeting Minutes

August 9, 2017

Ben Evans (K9UZ), Secretary



President Kevin S. (K9VIN) called the meeting to order at 7:23 PM. All the attendees introduced themselves.

### Announcements:

Curt S. (N9CBS) announced that the Racine Megacycle Hamfest at the Racine Kennel Club is this coming Saturday.

Nels H. (WA9JOB) said that during a recent 4562-mile road trip, he had a sign on his car window inviting other hams to contact him on 146.52. He got no calls.

Stan K. (WB9RQR) introduced Ken Poletic (W9ZMR), a guest from Illinois, who accompanied the night's speaker.

**Program:** Bernie Barr (K9JAT) made a presentation about the resistivity of various materials.

**50/50 Drawing:** Ed R. (AA9W) was the winner of the 50/50 drawing.

**Auction:** Stan (WB9RQR) conducted the auction. Many items were sold.

### Officer Reports:

Kevin S. (K9VIN) President – The corn roast unfortunately had to be cancelled due to lack of interest. However, there are two Saturday morning breakfast get-togethers that members might consider joining. One is at the Prime Minister in Thiensville. Food orders are taken at 6:45 AM. The other gathering is at Jim's Grille in Cedarburg, which meets at 7:00 AM. Kevin thanked Tom R. (W9IPR) for doing a great job putting together the club newsletter.

Pat V. (W9JI), 1st VP – No report.

Tom T. (KC9ONY), Repeater VP – We are close to moving the repeater to the new rack.

Ben E. (K9UZ), Secretary – The minutes from July's meeting is in the newsletter. Motion to accept the minutes was made, seconded, and passed without debate.

Treasurer – Ben E. (K9UZ) gave the July treasurer's report in Treasurer Dave B.'s (N9UNR) absence. As of July 31<sup>st</sup>, current assets of the club (club and scholarship accounts plus undeposited funds) totaled \$84,113.16. Total fixed assets (club equipment) are \$4,331.37. Total assets therefore are \$88,444.53. Club income in July was \$21.49 for a donation plus 2017 dues plus interest. Expenses for the month totaled \$91.49 for field day and repeater electricity. The net income, then, was negative \$70.00. The income for scholarship was \$184.36 for equipment sales and interest. A motion to accept the report was made, seconded, and passed without debate.

**Committee Reports:** Scholarship – Tom R. (W9IPR) gave the report. Tom recognized all those who have contributed to the newsletter. Tom relayed his thoughts about possibly having the ARRL administer the scholarships. This topic will be taken up in an upcoming Scholarship Committee meeting. The Fall Swapfest will be September 23, 2017 at Fireman's Park in Cedarburg. As these conflicts with the

Chicago FM Club Expo, should the ORC Fall Swapfest be moved to August next year? The Cedarburg High School Robotics Club will manage the refreshments stand. The coffee will not be free.

**Old Business:** Tom T. (KC9ONY) reminded the members about the Lighthouse event on August 18<sup>th</sup> through 20<sup>th</sup> and that people are needed to set up the tower Friday afternoon and tear it down Sunday afternoon. Tom N. (AA9XK) remarked that the Historical Society, which is hosting the event, asked that participants of the event park their cars away from the museum so people touring the museum have places to park.

**New Business:** Tom T. (KC9ONY) mentioned that there were no Field Day 2017 pictures on the ORC Facebook page. Tom R. (W9IPR) said he has them and will send them to Brian S. (N9LOO) to post.

Stan told the members present to be sure to come to the September ORC meeting to hear Ed R.'s (AA9W) presentation on x-ray tubes.

Ted H. (N9LLT) told members to check out "Nut Net" on 3.985. It's on at 8:15 AM every day except Sunday.

**Adjournment:**

A motion to adjourn was made, seconded, and passed. The meeting was adjourned at 8:56 PM.

**Attendance:**

There were 40 members and 3 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

## **AGENDA**

*September 13, 2017*

1. 7:00 – 7:30 PM – Networking, rag chew.
2. Call to order: Introductions. Kevin Steers (K9VIN).
3. Announcements, Bragging Rights, Show & Tell, upcoming events, etc.
4. Program: Ed Rate AA9W on TV tubes.
5. 50/50 – Kristian Moberg, KC9TFP.
6. Fellowship Break
7. Auction – Stan Kaplan (WB9RQR).
8. Presidents Report – Kevin Steers (K9VIN).
9. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR).

10. 2<sup>nd</sup> VP Report:
11. Repeater VP report – Tom Trethewey, (KC9ONY).
12. Minutes: Ben Evans (K9UZ).
13. Treasurer's report – Dave Barrow (N9UNR).
14. Committee reports:
  - A. Fall Swapfest
  - B. Scholarship Fund
  - C. Recruitment Presentation & Education
15. OLD BUSINESS
16. NEW BUSINESS
17. Adjournment to John's Pizzeria.

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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 13<sup>th</sup>, 2017

7:00 PM – doors open

7:30 – Membership Meeting



# The ORC Newsletter

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Volume XXIX

October, 2017

Number 10

## From the President

*de Kevin Steers (K9VIN)*



Well the Fall Swap Fest is behind us, and I want to thank all of those that volunteered to help set up, tear down, run to the barn, take money, and handle the parking lot. What a fantastic show of teamwork! I want to also thank Tom Ruhlmann W9IPR for his leadership and organization through yet another Fall Swap Fest.

**On the Air:** Well I have to be honest, summer is not my busy time on the air. I mostly join a few late-night rag chew groups, and I look forward to Friday nights for that reason. The guys I fell in with on 1.933, at 21:00 CST Friday's, are SO helpful and have coached and challenged me to make valuable improvements to my station. Feel free to join us.

I recently had a group of motorcycle enthusiasts up to the cottage, and on Sunday morning as we nursed a coffee, I tuned up on 20 meters, and made a five minute QSO with a gentleman in Florida, to demonstrate to the guys how Ham radio works. After the QSO I talked about antenna lengths, the different bands, and how the sun affects the bands, etc., all while CW droned on quietly in the background. They showed genuine interest, and I hope to plan a better demo next year when they arrive. Perhaps I will schedule a CW QSO with Gabe WI9GC, hoping I learn the code by then 😊

**On the Bench:** Well I figured out my Rotor problem, and by the time you read this article it will be corrected. When mating the top and bottom rotor parts to the tower plate, I did not use the washers that help create a very very important gap, allowing the rotator to actually rotate; IMAGINE that!

Also, recently at an estate sale in my neighborhood up north, I spied a radio device that I could not identify. I looked at it very briefly, all tucked away in an 8x8x8, aged, quarter-sawn oak box. It belonged to a man I had met as a child, and decided I had to have it. When the bidding began, and after the opening \$5 bid, I held my bid number in the air defiantly, and kept it there until the bidding ended. It was mine, for a tidy sum of only \$20. The man who refused to pay \$25, approached me and stated that I would need quite an antenna wire, and I pointed over his shoulder at my two 160M wire antennas in the distance. He was glad it went to someone who would use it.

Well, it was a long three-hour ride home before I had internet access, to do some research into what the heck I had. Apparently, this is a Monarch Crystal Detector, which I believe to be historic, possibly from before 1920. From Wikipedia:

A **cat's-whisker detector** (sometimes called a **crystal detector**) is an antique [electronic component](#) consisting of a thin [wire](#) that lightly touches a crystal of [semiconducting mineral](#) (usually [galena](#)) to make a crude point-contact [rectifier](#). . . . .

I expect to bring it to our meeting on October 18<sup>th</sup> meeting, to put it on display, so I can hear from our experts. No, Stan, it will not be in the auction ☺

73 K9VIN

## DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



The sun had some interesting surprises for us early last month. There was an active sunspot that generated some large flares. A flare is when a large quantity of material jets out of the surface of the sun. It generates a burst of X-rays followed by a wave of charged particles. The latter event is called a coronal mass ejection or CME for short. Both can affect us on earth, especially those of us that use HF communications.

The first effect is caused by the X-rays, which traveling at the speed of light, arrive nine minutes after it occurs. These will travel through the atmosphere and ionize the D layer of the ionosphere.

The D layer normally only affects the lower frequencies. It forms during the day and dissipates in the evening. It is the reason we only hear local broadcast stations during the day when it is formed and absorbs lower frequency signals. At night it dissipates and we can hear more distant stations. The D layer absorbs signals going through it preventing them from reaching the higher F layers and refracted back to earth. Higher frequency signals travel right through it.

The same thing happens on our low frequency ham bands. It affects our 160M band (which is just above the AM broadcast band) and has decreasing effects as you move up to 80 and then 40 meters. It does not have much effect once you get to 30 meters and up.

If you get a big enough solar flare and enough X-rays the D layer will get highly ionized. It can then absorb signals throughout the HF spectrum. This is called a Sudden Ionospheric Disturbance or SID. SID's are relatively rare. I have been operating twice when they occurred. Suddenly you don't hear any stations. Your first impulse is that your radio died. After an hour or so the bands start to come back, although you might hear a few stations here and there before then.

The first big flare occurred when it was night here but caused radio blackouts in Europe. The second big one did happen during our day and caused blackouts for us.

The next effect is when the CME hits the earth. Most CMEs don't directly hit the earth. It just depends on which direction they are pointed. Even if it is not directed towards earth there are usually enough charged particles to affect communications. Travelling much slower than X-rays, a day or two later the particles will approach the earth. Because they are electrically charged they interact with the earth's magnetic field. This causes our geomagnetic field to become disturbed and we might even have a "geomagnetic storm". This will adversely affect radio propagation, especially paths that travel near the poles.

Bad conditions will normally last several days or more before the magnetic field quiets down and better propagation returns.

If the CME is big enough and directed enough to us, the charged particles can create a good aurora or northern lights show. Apparently, we had a good one a night that was cloudy here. I did hear some hams using 6 and 2 meter SSB and CW to make contacts bouncing their signals off the aurora.

Fortunately, the CME was near the edge of the visible sun so was not directed towards us. If it was a direct hit it could have caused a lot of problems. A large aurora will generate a field that can cause huge currents to flow in long wires. Think of power lines. Over the years there have been a few power blackouts over large areas caused by solar flares.

In 1859 we had a huge flare directed towards the earth. It is now known as the Carrington Event. Auroras were seen as far south as the Caribbean. People in the north east could read newspapers from the light. Telegraph lines were damaged and operators got shocks. Today another Carrington level event would have huge consequences. It could destroy our electrical grid. Some estimates say millions would die from starvation and other causes from the loss of so many of our systems that depend on power. It might take a decade to restore the system and industry. The power industry says it will cost \$1B to harden our system.

A single nuclear detonation above us could do the same to about half the country. Another Carrington event is just a matter of time. With some unstable countries developing nuclear weapons and the ability to deliver them, it seems like this is something we need to do. Plans for this are tied up low priority in Congress.

In September the FCC announced an opening date for the new 630 and 2200 meter bands. It has been a long time. The ITU authorized use of these frequencies back in 2012. Many countries have had access for several years.

The power companies use these frequencies for signaling on their high voltage transmission lines. We have to be sure we don't disrupt them. The FCC requires hams to check with the Utilities Technology Council before operating. There is a web site to register. If you don't hear back from them in 30 days you can begin operating. Basically, you will be OK if you are more than 1KM from one of the large transmission lines. Even if you do, it still might not be an issue because they might be using other frequencies. I signed up the first day and have not heard anything. I don't expect I will since there are no big transmission lines near my QTH. I'm looking at building a small CW transmitter for 630M. The ARRL urges hams considering operating these bands to sign up right away. That way the utilities will avoid putting new signaling systems on these frequencies.

These bands are going to be a challenge. We can only run 5W EIRP on 630, and 1W EIRP on 2200 meters. A dipole for 630 meters is 985 feet long. One for 2200 is going to be about 2/3 of a mile long. Clearly these will not fit in your average city lot. Loaded short antennas will be required for most hams.

October is usually the best month for DX propagation of the year for us. We are past the equinox and there is less polar absorption. Sunspot levels are low however. Expect 15 meters and above to be spotty. Of course, we could have some unexpected sunspots and get a bit of a bounce. You just have to keep an eye out.

The big contest of the month is CQWW Phone. Actually, it is the largest contest as far as activity except possibly Field Day, but that is technically not a contest. It starts at 00:00UTC Saturday October 28. That is Friday night, 7:00 PM local time. It runs for 48 hours. You work only DX stations, except you can work US stations for multipliers but not QSO credit. Points per QSO depend on the locations of the other station. Use 160-10 meters, not including the WARC bands. The exchange is signal report and CQ zone. We are in zone 4 so normally you would give 5904.

There are a lot of different operating classes so you can tailor your operation based on station and time. There are all band or single band classes. Each class has high, low and QRP power classes. Each of these has a class based on if you use DX spotter help. If my math is correct that is 36 different classes. There is also a "Classic" class where you can only operate 24 hours and a Rookie class. You can look around and probably find a class without a lot of entries and if you put in some effort might end up with a nice piece of wall paper. Info at <http://www.cqww.com/>

There are some state QSO parties and some other contests in October, but CQWW is the granddaddy.

There are some interesting DXpeditions this month. Sao Tome will be activated by a group of German hams until October 10. 160 M through 10M. The call is S9YY.

There are two operations from VK9X (Christmas Island). The first is by a group of Australian hams using VK9XI. They will be on 160-10 meters, CW, RTTY and SSB October 2-10. The group will then move to Cocos Keeling Island from Oct 10-17 and use the call VK9CI.

The second Christmas Island operation, VK9XGJ, was mentioned last month but the dates were not clear. The plan is now Oct 2-19. This operation is 6M moon bounce. You can bet Ken, W9GA, will be all over this one.

If you miss the first Cocos Keeling operation, there will be another by a couple of Scottish hams using VK9CZ October 22-November 6. They plan to be on for CQWW.

Franz Josef Land used to be reasonably common but not so the last few years. A group of Russian hams will activate RI1F from approximately October 3-10. 160-10 meters. CW & SSB.

A group of European hams will be on from Bangladesh from October 15-18 and again October 21-25. This is to activate islands for the IOTA (Islands on the Air) awards program. They will be on two different islands, thus the two operating segments. They will be on 80-10 meters, SSB, CW, RTTY, PSK31 and perhaps FT8. The call has not been announced but the prefix is S2. Propagation to this part of the world will be tough. The best bet will be 40-20 meters.

At the end of the month Liberia will be on as 5L1BI from another IOTA island. This is put on by a combined group of Liberian and Irish hams. October 31-November 4. Bands are not mentioned but they will be on CW and SSB. This will be the first ham operation from Baiyah Island. Liberia has not been very active the last few years.

If you don't get your fill of VK9 Islands in October, Mellish Island will be on at the start of next month. An international crew will operate as VK9MA November 3-16. They will have 5 stations on from 160-10M, CW, SSB, and RTTY.

Usually there are quite a few DXpeditions for CQWW, especially to the Caribbean Islands. With all the hurricane damage you can count on a lot of these being cancelled.

I know there will be a lot of hams in Puerto Rico but they won't be on for contesting and DXing. The Red Cross asked the ARRL for communications assistance because of almost complete infrastructure destruction. They needed 50 volunteers to go to KP4 for 3 weeks. They got 350

volunteers in the first 24 hours. I'm sure a lot of those not chosen will be going down in later shifts. Too bad it takes things like this to put a spotlight on ham radio.

That wraps up October. Between getting the station and antennas ready for the cold weather, there are plenty of things to do on the radio this month.

## THE COMPUTER CORNER

### *No. 236: Linux and Windows: Neither is Perfect!*

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
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My lovely wife Nancy (KC9FZK) has watched and listened as I installed Linux in a couple of situations where the result was not perfect, and she suggested I write about these to point them out. "Don't claim that Linux is perfect when it is not," she says. So, let us see where Linux has chinks in its armor.

First, Linux is not perfect in a dual-boot scenario. On the other hand, it is probably a very good choice if you want a Windows/non-Windows machine. Let me talk about dual booting for a bit. It is defined as having two operating systems on a single computer, and you choose at boot-up time which of the two you want (you could have even more than two available, but we will not get into that here). Also note that if you want a dual-boot machine, it matters which operating system is in control.

All the experts say that if you wish to have both Windows (XP or above) and Linux on the same hard drive, your best bet is to install Windows first, leaving enough room in an unused partition to later install Linux. Then, after Windows is in place and set up, install Linux, and put it in charge of the dual boot process. This is best is because Microsoft operating systems do not manage dual-boot environments very well (What?? Microsoft does not play well with other operating systems?? For shame!. Linux, on the other hand, will do fine in control of the dual-boot machine.

For example, here is what I see on the screen when booting up my Winlink (Win 10)/Ubuntu Linux) machine:

**Ubuntu**

**Advanced options for Ubuntu**

**Memory test (Memtest86+)**

**Memory test (Memtest86+, serial console 115200)**

**Windows 10 (loader) (on /dev/sda1)**

Ubuntu (the first line) is highlighted when this screen appears. If I just hit the Enter key, Ubuntu Linux is loaded. Or if I do nothing for 5 seconds, Ubuntu Linux is loaded. Within 5 seconds, if I use the down arrow to highlight the second line, I can select some advanced options for Ubuntu. The third and fourth lines will permit a memory test. The last line will start Windows 10. This line is where I go most often, to start Win10 and Winlink.

Nice, right? Yep, most times it is fine. But, what happens when Windows does an update at 3:00 a.m. and reboots the machine when it is finished? I am not present when this happens, so

Ubuntu is automatically selected after 5 seconds. But this is a Winlink machine, supposedly with Winlink running under Windows 10 24/7! So, the next morning, I notice that Ubuntu is on screen, and I must reboot to install Windows/Winlink. Not perfect. Ideally, I should be able to reorder the five choices in the above boot menu and place Windows 10 loader first. But, there are no provisions to do so that I am aware of. One chink in the Linux armor.

Nancy also wanted me to mention that we have six computers in the house, and only one is a dual boot machine. I think she wants to play down Linux. Hers is a straight Win10 machine, which she uses for email, writing and games.

The second chink in Linux' armor is really not a chink. It is just the bald fact that Linux is not Windows. Without taking some special steps, programs written for Windows WILL NOT WORK in a Linux machine. Nor will programs written for Linux work in a Windows machine. It's like trying to give a person who only speaks English a complicated instruction set in ancient Greek. Or the reverse. It just isn't going to work out properly!

So, what are those special steps I mentioned? Let me just outline three. A program that comes with the installation of several versions of Linux called "Wine" will let you install and run some Windows programs. Not all, but many, including games. You simply run Wine before installing the Windows program and you are home free. It may not work in every case, but it may well work in yours. The only way to tell is to try it.

A second approach is to use a virtual machine. A virtual machine (VM), in this case, is software designed to run Windows programs within a running Linux installation. In other words, you create a Windows environment inside a protected box in your Linux machine and run whatever Windows programs you want in that box. A search for VMware Player should get you started.

Third, if you have more than one computer for your use at home, one being a Linux machine and the other Windows, you can use Teamviewer to run the Windows programs on the Windows machine and see and control the whole thing with the Linux machine. Teamviewer presents the screen of the remote computer just as if you were sitting in front of the remote, and you have full control (mouse, keyboard, etc.). And Teamviewer works perfectly on Linux, as well as on Windows. I do it all the time. Happy Computing!

# Vintage Amateur Radio

de Bill Shadid, W9MXQ



This month we will talk about the Collins Gold Dust Twins (abbreviated here as GDT). That refers to the 75A-4 Receiver and the KWS-1 Transmitter from 1955. “Gold Dust Twins” is a term used by hams relating to the station’s high price back at the time of its introduction. It applies to its resale value to this day. You will often hear me refer to Collins equipment as having “desk presence” and this set sure dose keep to that promise. You will see that term come up in later article on Collins equipment and with some of its competitors from the 1950’s and 1960’s. Here is a complete station (temporarily missing only the matching speaker console) . . .



**Left to Right are the KWS-1 Transmitter Power Supply (floor mounted in this installation), the KWS-1 Transmitter RF Unit, the temporary Speaker (more about this below, in the text), and the 75A-4 Receiver. You will also note the Ameritron ATR-15 Antenna Tuner on top of the Power Supply, the Astatic D-104 Microphone, an old set of Lincoln Headphones (“Cans”), and a Vibroplex “Bug” Keying Mechanism.**

The above picture shows the station shut down right after a CW QSO with a station in the state of Washington. I was a bit humbled by my difficulty using the Bug (Semi-Automatic Keying Mechanism). I have gotten rusty on that process over the years – not to mention spoiled by today’s lambic Keys and Keyers. The radio was putting out about 500 watts on 40 meters at the time.

To the Collins purest reader, the Bell and Howell Speaker is not the proper piece of equipment to be seen with this fine set. But, there are two Speaker Consoles that match this set that are part of this package – the Collins 270G-3 and the Collins 312A-1. Both are currently being restored for paint and trim by a fellow collector in California. Maybe they can appear in this column in an update. To be sure, the Bell and Howell speaker sounds great!!

The GDT work on the 80 through 10-meter bands, including 11-meters. As far as my understanding goes, 11-meters was an unofficial ham band at the time. The 75A-4 Receiver goes one better and covers 160 meters. There is a very large extended coverage area on every one of the band positions in support of wide use of the GDT units in MARS (Military Auxiliary

Radio System), US and other embassies, and commercial applications of all sorts. These radios were found wherever high-frequency, high power communications were necessary.

The 75A-4 Receiver is a true gem. In many ways, it makes a good showing of itself even on today's band conditions. In fact, later retrofit mechanical filters make it better performing than when new. The sound and tuning are "smooth as silk" – a term hard to define but easily identified when heard. It uses 22 tubes to do its work.

Most unique, at least in ham radio receivers of the day, was the Passband Tuning. This is a feature that Collins later abandoned for ham radio equipment until the very much later KWM-380 Transceiver. Unlike R. L. Drake's design for the same feature (many years later), the implementation was not electronic (in its initiation) but was mechanical. The turning of the Passband Tuning knob allowed simultaneous, and opposite, tuning of the VFO Frequency and the BFO (Beat Frequency Oscillator) to place the signal in a different location in the passband. That process was very effective in removing adjacent frequency QRM. To be sure, the VFO and the BFO are both electronic – but later implementations of this feature *electronically* tuned these two circuits. The internal mechanics of this process in the 75A-4 is very interesting to see. The result was impressive and at the same time rather remarkable for the time.

Like some later Collins receivers, the 75A-4 included Rejection Tuning in its anti-QRM arsenal. "Rejection Tuning" is a Q-Multiplier that was very popular in many brands of receiver in those days. Versions of external Q-Multipliers (called many things) exist as accessories to this day. (Small note - in the GDT units, the VFO's are Permeably Tuned, or Inductive Tuned, Oscillators – better known as PTO's. Here we use "VFO" generically.)

The KWS-1 Transmitter could operate on SSB, CW, and AM modes. (It could also operate on RTTY by AFSK injection to the 600-ohm phone patch input.) Input power was 1,000 watts for SSB and CW for a 500 to 600-watt power output. For AM, loading was specified at just over 50% of SSB and CW values. Collins at the time unabashedly focused on SSB operation – a point that will come to light in later installments on the S-Line equipment introduced a few years later. In fact, well known was a slight issue on CW whereby a knowledgeable Collins Collector can notice a slight "whoop" in the CW signal, due to some power supply design issues. It is not objectionable – in fact, to collectors that I know, it identifies another KWS-1 on the air. I find that to be a personality trait to be cherished.

The KWS-1 and its matching power supply weigh in at about 210 pounds. This is a true "boatanchor." (And, there were days during restoration when I thought being a boat anchor was the best use of this beast!) Added to the 35-pound weight of the 75A-4 Receiver we have a radio set approaching 250 pounds before including such things as a big antenna switching relay and some pretty heavy-duty interconnect cables.

A small, but interesting story about the CW signal "whoop" happened to me with my very first GDT set – with respect to the KWS-1 Transmitter. I had been working for days to get it working dependably. Finally, on the day things came together, I was testing the transmitter and seemed to get it working perfectly at 2:00 in the morning in a marathon work session. I sent a string of test transmissions on 15-meter CW. At 2:00 in the morning, who would expect anybody to hear me? Back comes a nearly immediate call from a ham in New Zealand with the message, "WA9MXQ, where did you get that KWS-1? It sure sounds nice." The "whoop" was the dead giveaway to another "Collins man" half way around the world that a KWS-1 was on the air! I went to bed that night a happy man! (WA9MXQ was my call in those days.)

Power was the name of the game for the KWS-1 Transmitter. It has a tube compliment of 31 with the final amplifier tubes being a pair of 4CX-250B ceramic tetrodes. Early versions used a pair of 4X-150A Tetrodes (not ceramic). The pair of 4CX-250B tubes allowed for a total dissipation of 500 watts (250 watts per tube). That allowed for a good safety margin for an SSB/CW transmitter running an input power of 1,000 watts in the intermittent modes used. The 300-watt total dissipation in the pair of 4X-150A tubes in early KWS-1 Transmitters was acceptable but was a bit short on overhead! It is my understanding that availability of the 4X-150A tubes drove the conversion to the 4CX-250B and not really an issue of power dissipation.

The KWS-1 in this article was problematic for many years through 3 owners (that I know about) – with me being the last. I think that I may be the first owner to see it work dependably. It had the usual age-related problems and several problems that came right off the assembly line at Collins in Cedar Rapids, Iowa, or so we suspect. It took a total of four Collins Collectors Association (CCA) members, including me, to get it running in the way it was designed in the 1950's.

This KWS-1 is my third in as many complete GDT sets I have owned. But, this is the first one that I did not do all the restoration on my own. These radios take a lot of tender, loving care to get and keep running. But, when done they certainly carry bragging rights. We have at least two of them in the Ozaukee Radio Club. But, we have more than two of the 75A-4 Receivers in our club ranks.

Here are some of many GDT Trivia items for those interested. These radios were gradually upgraded and improved through their product life cycle as with all products. Check this difference in the front of the 75A-4 Receiver . . .



**Early 75A-4**



**Later 75A-4**

Note the Vernier Main Tuning Knob (4:1 ratio) in the later receiver version. See also the Upper Right-Hand knobs on the front panel – the lettering is aligned across the top in the later version. These updates did not happen at the same time – plus, Collins offered an update kit to implement the Vernier Tuning Knob to older 75A-4 Receivers (and the KWS-1 Transmitter). When looking at 75A-4 Receivers over time, one can notice that early receivers had a red arc above the S9 reading.

The KWS-1 Transmitter also had some more minor differences in front panel switching as field feedback pushed some small changes. Not well known about the KWS-1 was a marketing dilemma faced by Collins at the time with respect to product offerings in the transmitter. Collins offered the 75A-4 Receiver (\$895 in 1955) and the KWS-1 (\$1,995 in 1955) models. For the first year or two they also offered a model KWS-1K that was delivered without the high voltage power supply or the power amplifier tubes. In those days, many hams had AM Transmitters and Amplifiers with power supplies and power amplifier tubes they could adapt to SSB. I have never seen a KWS-1K but I have seen KWS-1's billed as "missing their power supply." I suspect those

were KWS-1K radios separated from their home brew power supply. Early on, Collins referred to the KWS-1K as the Collins 32W-1 Exciter. Few, if any, of that actual model exists. It was slightly different in front panel layout (missing the right meter, for one thing). Another piece of trivia is that Collins first advertised the KWS-1 Transmitter as the 30L-1 – a model number later used in the very popular desktop Linear Amplifier marketed with the S-Line Separates and the KWM-2 Transceiver.

The story is, apparently, that Art Collins wanted to showcase the “KW” (for power) and “S” (for Single Sideband) in the model number. The S-Line and the KWM-2 product lines are covered in the next two installments of Vintage Amateur Radio.

This Gold Dust Twins set is in my personal collection – and is here to stay and never to depart. (Well, never is a long time!) Shortly they will include their matching Speakers when they come home from refurbishing. These radios came from my fellow collector of all brands of vintage ham radio equipment, Bob, W9DYQ, in one of our largest trades to date.

## ORC Fall Swapfest

De Tom Ruhlmann, W9IPR



We had great weather for the ninth annual ORC Regional Swapfest and very good publicity however we definitely felt the affect of the Chicago FM Club's swapfests competition for vendors at Belvedere IL.

It was a good time at Fireman's Park with many good buys but with only 12 vendors, including Tower Electronics, the quantity of items available was somewhat limited.

The ORC did make a profit of \$217, which is about \$200 less than expected, and the Scholarship Fund did sell \$501 of donated items so overall financially it was still a success. Next year we will have to establish effective communications with the Chicago group and avoid any conflict to assure best results for both groups.

My special thanks to Ann Denk and the Cedarburg High School robotics club for operating the concession and the following ORC'ers for their help on the Friday and Saturday of the event:  
Jim Albrinck, Chuck Curran, Ben Evans, Mike Harrington, Cliff Kollros, Pat Volkmann, Ed Rate, Ken Boston, Bob Schutmann, Matthew Schutmann, Chuck Meyer, Nels Harvey, Tom Nawrot, Kate Holt, Dick Holt, Stan Kaplan, Pat Ruhlmann, Kristian, Nancy Stecker, Tim Broppe, Ken Boston, Gary Drasch and Gary Sutcliffe.

# UPCOMING EVENTS

October 8, 2017 – SEWFARS swapfest at Sterling Chalet in Hubertus  
October 11, 2017- Membership meeting - Program – AC Motors by John Strachota  
November 4, 2017 – Milw. Repeater Club Swapfest at Elks Lodge @ 5555 W. Goodhope Rd.  
November 5, 2017 – Fox Cities Swapfest at Monarch Gardens in Appleton WI  
January 6, 2018 – WARAC Swapfest at Waukesha Expo Center in Waukesha WI

“

## Ozaukee Radio Club September, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary

*The meeting minutes were recorded by Chuck C., W9KR in my stead. Thanks, Chuck! – Ben E., K9UZ*

- Secretary Ben E., K9UZ presided over the meeting due to the absence of President Kevin S., K9VIN and First Vice-President Pat V., W9JI. The meeting was called to order at 7:30 PM.
- Introductions were next, with all members present giving their names and call signs.
- Announcements/Bragging Rights/Show & Tell
  - Gary D., K9DJT brought in a sample of the newly printed QSL Cards for the Lighthouse Event that took place August 19-20, 2017.
- Program — Ed R., AA9W provided a program on the beginning of the development of television and television camera inventions. He covered the Nipkow “spinning disk” television system and Philo T. Farnsworth’s groundbreaking invention of the “image dissector” which led to the first all-electronic TV system. Ed went on to discuss both orthicon and Videocon TV camera tubes and showed actual samples of each.
- 50/50 Drawing — Not held.
- Auction—Stan K., WB9RQR, conducted the auction for the evening, with 19 different items being offered.
- Officers’ Reports
  - President’s Update -- Ben brought up the following:



- Falls Swapfest is on September 23<sup>rd</sup> at Cedarburg Fireman's Park.
  - Elections are coming up, so please start considering what office you might want to run for in January 2018.
- 1<sup>st</sup> VP Pat V., W9JI – Not present, no report.
- 2<sup>nd</sup> VP – Position vacant, no report.
- Repeater VP Tom T., KC9ONY -- The new repeater rack is now in operation. It is fully functional and will be much easier to maintain because of the construction features used.
- Secretary's Report by Ben E. -- Meeting Minutes for August 9, 2017 are in the September newsletter. A motion to accept the minutes was made, seconded and passed by vote of the members present.
- Treasurer's Report – Treasurer Dave B., N9UNR made a motion to accept the report as circulated by email, which was seconded by Chuck C., W9KR. The membership voted to accept the report.
- Committee Reports
  - Fall Swapfest: Tom R., W9IPR, discussed the upcoming Fall Swapfest scheduled for September 23, 2017 at Fireman's Park in Cedarburg. He made a request for volunteers to help out and passed a signup sheet for various activities. Jim A., K9QLP let the membership know that people intending to help with parking need to be present by 5:45 AM, since the sellers are already lining up by 6:00 AM.
  - Scholarship Committee: Tom R., W9IPR will be scheduling a Scholarship Committee meeting in the near future, to be announced.
  - 2018 Spring Swapfest: Kristian M., KC9TFP had nothing to report.
- Old Business
  - We currently have no 2<sup>nd</sup> VP. Ben posed the question on how the club should precede, either wait until the January 2018 election or fill the position as soon as possible. Stan K., WB9RQR recommended and moved that the Board make a recommendation on this item and present it at an upcoming meeting. The motion was seconded and passed.

- New Business

- Spring Swapfest: Discussion centered on the venue for next year's Spring Swapfest. Nels H., WA9JOB made the recommendation that we again rent the St. Mary's Curling Center at Cedarburg Fireman's Park. Some concern was expressed about the rental cost and no one had the resulting revenue and expense figures on hand to show whether the activity was making a solid profit. Tom R., W9IPR moved to have the Board conduct revenue vs. expenses evaluation to help determine whether or not the swapfest would be better off at another venue.
- Club QSL Card: Ben posed the question of whether the club should have its own QSL card for general use, bearing the club repeater call sign. It was the consensus of the group that there is no need for it at this time, so no action was taken.

- A motion to adjourn was made, seconded and passed. The meeting was adjourned at 9:22 PM.

There were 42 members and no guests present at the meeting.

A copy of the attendance sheet is available upon request in PDF format. Please contact Ben via email at [ben@evansengsolutions.com](mailto:ben@evansengsolutions.com) for a copy.

## AGENDA

October 11, 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: 50/50 – Kristian Moberg, KC9TFP
5. Fellowship Break
6. Auction – Stan Kaplan (WB9RQR)
7. Presidents Report – Kevin Steers (K9VIN)
8. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
9. 2<sup>nd</sup> VP Report –

10. Repeater VP report – Tom Trethewey, (KC9ONY)
11. Acceptance of Minutes : Ben Evans (K9UZ),
12. Treasurer's report – Dave Barrow (N9UNR)
13. Committee reports.
  - A. Spring Swapfest
  - B. Fall Swapfest Report – Tom Ruhlmann
  - C. Other
14. OLD BUSINESS
15. NEW BUSINESS
16. 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, April 12<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



# 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

November, 2017

Number 11

## From the President

*de Kevin Steers (K9VIN)*



Well folks, antenna weather is upon us. Last Saturday, in northern Wisconsin, it flurried all day with high winds, to boot. This created the perfect excuse, which kept me from climbing my tower. Had I had help, I may have gone up, but my only neighbor is thin-skinned, and would have gotten no entertainment out of it. While my rotor works fine (finally), the antenna is not pointed in the correct direction. An easy mistake to make and a little embarrassing, running out on the deck repeatedly (and realizing that you can't see a beam's heading with a flashlight). I promise this will be the last you will hear of my rotor. I have made nearly every mistake a person can with the installation, and hope you have laughed and learned along the way.

I had good results stringing up a 160M dipole constructed with stainless steel welding wire. As I suspected, I struggled soldering the stainless wire and resorted to wire nuts, at the balun. It seems to work well, but it is unconfirmed if it is any improvement over my OCF Windom antenna, though the Windom should have some vertical radiation, based on its design. I will spend the winter bugging folks on the air for honest comparisons. If the dipole is no better, I may make the bold move to turn the dipole into a 160M loop, which will certainly require discussions with my neighbors, or some clandestine wire hanging activity.

I finally got my Ameritron AL-84 amp on the air. I picked it up at Dayton for a song, and then re-tubed it, with Chuck's help. Preliminary results are promising, and I hope to put it into service more as the days grow shorter. My last change to the station is to wire up a lead from the Yaesu transceiver to the Amp to trigger it. Currently it is a manual effort that, I am told, builds character.

73, K9VIN

**Mark Fielkow, KB9PXE – SK**



Mark Fielkow, KB9PXE, sadly became a silent key on Tuesday, October 17, 2017.

Mark was a lifelong resident of Milwaukee and a graduate of Washington High School.

His interest in amateur radio began while he was involved in CB radio in the 1970's. Mark obtained his first ham license in 2003. His "Elmer", Todd Fast (N9DRY), encouraged him to get his General License in 2006 and his Extra the following year. Mark joined the ORC in 2009.

Mark worked 15 years as a Volkswagen engine mechanic while he developed his sideline business as a locksmith. Eventually, Mark's locksmith business grew to the point of having to give up his engine mechanics job to devote himself full time to the locksmith trade. Mark specialized in security systems, high security locks and, as a special interest, antique locks which often required him to fabricate new parts.

Mark was a faithful attendee at the ORC meetings and will be missed.

## **DX'ing & Contesting**

*De Gary Sutcliffe (W9XT)*



Last month I mentioned the opening of the new 630 and 2200 meter bands. To transmit on these bands, you first must get the OK from the Utilities Technology Council. Basically, FCC regulations prevent you from transmitting within 1 KM of a power line using these frequencies for control. You go to their web site and enter your information and they have 30 days to check if you are too close. If you don't hear from them, you can begin operations. I applied the day it opened and got an email with my permission to use both bands just under a month later.

I didn't want to get too far into this before I knew I would be allowed to operate. I have started on a transmitter for 630 meters, but so far all I have mostly been listening. Digital modes seem to rule on this band. I have heard a couple of stations calling CQ on CW. QSOs seem to be mostly JT9, but all I have seen are a few stations calling CQ. I have not left the receiver set up for JT9 that much though.

At this point it seems to be mostly stations using WSPR, the weak signal beacon system. I have been monitoring 474 KHz with WSPR when I get the chance. From time to time I let it run all night and check what I have picked up in the morning. This is definitely a night time band. There are a number of beacons transmitting on 630M. WD8DAS in Madison seems to be on all the time W9XA in Batavia IL is on frequently. I can usually hear them when they are transmitting at any time of day, but otherwise the other stations disappear during daylight. Many of you probably know Kermit, W9XA, who is our ARRL Central Division Director.

During darkness I have been typically hearing 5-6 stations across the country at any given time. I usually have been mostly using my 160M inverted L but have been playing with other antennas to see how they work. I have picked up Hawaii a few times an hour or so before sunrise. The signals were very weak, around 30 dB below the noise level. That is even weaker than most moon bounce signals! I have not heard anything across the Atlantic yet. Transatlantic propagation seems rare, at least during the short time I have been monitoring. The only station I have seen making it over the pond is AA1A on the coast of Massachusetts.

If you have a radio less than 15 years old or so, it probably has a general coverage receiver and you should be able to listen on 630 M (472 MHz) and maybe 2200 M (135 KHz). You can listen for CW or monitor WSPR and JT9. If you downloaded the WSJT-X software mentioned a couple of months ago in this column for FT8, you are already set to go. WSJT-X has all the modes used on 630 M.

You can also see who is hearing who by going to <http://wsprnet.org>. Click on map in the upper right side. Scroll below the map and you can see a box for band selection. Pick MF for 630 M and LF for 2200 M. Then hit Update to redraw the map. You will see a Google map of all the stations logged into the network. Most of them will be just listening but a fair number are also transmitting. Click on a station and it will show who it is hearing and if transmitting, who is hear it. Originally, I was going to do a 630 M CW transmitter but have decided to make a WSPR transmitter to start. It will probably be a while before I finish it. I'm not sure what to do about an antenna yet. That is going to be a challenge.

November is a big month for contesting. The ARRL Sweepstakes are this month. The CW weekend starts on Saturday November 4. Phone is two weeks later, November 18. This contest really challenges your copying skills since the exchange is so long. I went over the details last year and you can look at the details in the club newsletter archives. Complete rules are found at <http://www.arrl.org/sweepstakes>

As usual the CQWW CW weekend competes with Thanksgiving weekend events, with it starting at 00:00 UTC Saturday November 25 (6:00 PM Friday local). The rules are the same as the phone weekend discussed last month except it is CW. This is probably my favorite contest. I like DX CW contests because of the strategy required. Last year I was not up to an all band effort which requires operating as much of the 48 hour contest as possible to win. Instead I did a 20 meter, low power assisted effort and finished in first place in North America. I was very pleased with that. I will be on again this year, but don't know what category I will operate.

DX wise, the higher bands have been getting better as we get deeper into fall. I had other obligations during the CQWW phone contest, and didn't get on, but indications were that 15 meters were pretty good. That pretty much matches my observations of general operating the last couple of weeks.

I have been playing around a bit with FT8 chasing DX mostly on 17 and 12 meters. I just want to see how long it takes to get 100 countries with FT8. The country total is 63 worked so far. (I worked 3 new ones just while proof reading this article!) About 25 of those are just from a few hours the last two days. A couple of days ago, Jerry, N9AW from Milwaukee passed 100 countries on FT8. I could probably be higher, but I have been concentrating on 17 and 12 to pick up new band countries for my regular DXCC. There seems to be more interesting DX on 15 and 20.

I don't have beam antennas on 17 and 12 meters. I am running less than 50 watts most of the time, so my FT8 set up could hardly be described as a big gun. If you have a small station, don't do CW, etc., FT8 is a great way to work DX.

There are several DXpeditions on the schedule for November. The big one is VK9MA from Mellish Reef. An international group will be on by the time you read this and be there until November 16. 160-10M, CW, SSB and RTTY. There have been several DXpeditions to other VK9 islands the last few weeks. Unfortunately signals from that region have been weak. Some of the best openings have been long path (signals coming from the east) around 4:30 PM local time on 40 meters.

Montserrat used to be a pretty common country being in the Caribbean. It was a favorite spot for many contesters going down there for the DX contests. In 1995 there was a big volcanic eruption that devastated the island. Most of the population had to be evacuated. Another eruption in 2010 did additional damage. To this day a large part of the island is off limits. As can be expected ham activity dropped way off. A group of primarily German hams will be active from there as VP2MDL November 6-20. 160-10 meters, CW, SSB, RTTY, PK31.

Another Caribbean island being activated is St. Barthelemy. A group of mostly Polish hams will be using TO2SP November 16-30. 160-10m CW, SSB and RTTY.

San Andres Island will be activated November 11-25 by a group of Argentinean hams November 11-25. 160-6M. Phone, CW, RTTY, PSK31 and FT8 are mentioned. Look for 5K0T.

A group of Italian hams will be on from Guinea Bissau November 13-26. 160-10 meters, CW, SSB, and RTTY. They plan to have four stations running using the call J5T.

Ghana will be on the air November 20-29 being activated by a group of Slovenian hams with the call 9G5W. They list 160-10 meters although they say the focus will be on the low bands. CW, SSB and RTTY.

The Galapagos Islands used to be a sure multiplier during contests when the HC8N contest station was active. Since then not much has been heard from this island famous for its unique wild life. It will appear again as HC8LU November 29-December 7. 160-6M, SSB, JT64 and PSK31. They also plan to try FT8.

Some of the operations listed are there to participate in the CQWW CW contest at the end of the month. There are a lot of other smaller groups going to interesting places for the contest. They are often on before the contest for a few days, so it is a good time to just listen around to see what you can find. I bet a lot of them will be on FT8 and easy pickings.

That wraps up November. There is a lot going on!

## **THE COMPUTER CORNER**

**No. 237: Hams, Keep Your Eyes and Ears Open**

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)

This was sent to notify us of “threat actors”, who target several infrastructure sectors in the US. I



have reprinted only about half of the email, to give you a taste of what it covers. For the entire document, which you should read, go to: <https://www.us-cert.gov/ncas/alerts/TA17-293A> This is serious stuff, and those of us in the ham community have an obligation to keep alert and notify authorities of suspicious activity. That is all I will say. Read the following and access the TA17-293A document for a complete read.

**From:** "US-CERT" US-CERT@ncas.us-cert.gov **Date:** 20-Oct-17 Friday 10:06 PM

**Subject:** TA17-293A: Advanced Persistent Threat Activity

Targeting Energy and Other Critical Infrastructure Sectors

U.S. Department of Homeland Security US-CERT National Cyber Awareness System:

**Overview:** This joint Technical Alert (TA) is the result of analytic efforts between the Department of Homeland Security (DHS) and the Federal Bureau of Investigation (FBI). This alert provides information on advanced persistent threat (APT) actions targeting government entities and organizations in the energy, nuclear, water, aviation, and critical manufacturing sectors. Working with U.S. and international partners, DHS and FBI identified victims in these sectors. This report contains indicators of compromise (IOCs) and technical details on the tactics, techniques, and procedures (TTPs) used by APT actors on compromised victims' networks.

**Description:** Since at least May 2017, threat actors have targeted government entities and the energy, water, aviation, nuclear, and critical manufacturing sectors, and, in some cases, have leveraged their capabilities to compromise victims' networks. Historically, cyber threat actors have targeted the energy sector with various results, ranging from cyber espionage to the ability to disrupt energy systems in the event of a hostile conflict. [1] Historically, threat actors have also targeted other critical infrastructure sectors with similar campaigns.

Analysis by DHS, FBI, and trusted partners has identified distinct indicators and behaviors related to this activity. Of specific note, the report Dragonfly: Western energy sector targeted by sophisticated attack group, released by Symantec on September 6, 2017, provides additional information about this ongoing campaign. [2]

This campaign comprises two distinct categories of victims: staging and intended targets. The initial victims are peripheral organizations such as trusted third-party suppliers with less secure networks. The initial victims are referred to as “staging targets” throughout this alert. The threat actor uses the staging targets' networks as pivot points and malware repositories when targeting their final intended victims. The ultimate objective of the cyber threat actors is to compromise organizational networks, which are referred throughout this alert as “intended target.”

Technical Details

The threat actors in this campaign employed a variety of TTPs, including:

- open-source reconnaissance,
- spear-phishing emails (from compromised legitimate accounts),
- watering-hole domains,
- host-based exploitation,
- industrial control system (ICS) infrastructure targeting, and
- ongoing credential gathering.

## Using Cyber Kill Chain for Analysis

DHS leveraged the Cyber Kill Chain model to analyze, discuss, and dissect malicious cyber activity. Phases of the model include reconnaissance, weaponization, delivery, exploitation, installation, command and control, and actions on the objective. This section will provide a high-level overview of activity within this framework.

### Stage 1: Reconnaissance

The threat actors appear to have deliberately chosen the organizations they targeted, rather than pursuing them as targets of opportunity. Staging targets held preexisting relationships with many of the intended targets. It is known that threat actors are actively accessing publicly available information hosted by organization-monitored networks. DHS further assesses that threat actors are seeking to identify information pertaining to network and organizational design, as well as control system capabilities, within organizations.

Forensic analysis identified that threat actors are conducting open-source reconnaissance of their targets, gathering information posted on company-controlled websites. This is a common tactic for collecting the information needed for targeted spear-phishing attempts. In some cases, information posted to company websites, especially information that may appear to be innocuous, may contain operationally sensitive information. As an example, the threat actors downloaded a small photo from a publicly accessible human resources page. The image, when expanded, was a high-resolution photo that displayed control systems equipment models and status information in the background.

Analysis also revealed that the threat actors used compromised staging target networks to conduct open-source reconnaissance to identify potential targets of interest and intended targets. "Targets of interest" refers to organizations that DHS observed the threat actors showing an active interest in, but where no compromise was reported. Specifically, the threat actors accessed publicly web-based remote access infrastructure such as websites, remote email access portals, and virtual private network (VPN) connections.

### Stage 2: Weaponization Spear-Phishing Email TTPs

Throughout the spear-phishing campaign, threat actors used email attachments to leverage legitimate Microsoft Office functions to retrieve a document from a remote server using the Server Message Block (SMB) protocol. As a part of the standard processes executed by Microsoft Word, this request authenticates the client with the server, sending the user's credential hash to the remote server prior to retrieving the requested file. (Note: It is not necessary for the file to be retrieved for the transfer of credentials to occur.) The threat actors then likely used password-cracking techniques to obtain the plaintext password. Once actors obtain valid credentials, they can masquerade as authorized users.

### Stage 3: Delivery

When seeking to compromise the target network, threat actors used a spear-phishing email campaign that differed from previously reported TTPs. The spear-phishing email used a generic contract agreement theme, with the subject line “AGREEMENT & Confidential”, and which contained a generic PDF document, titled “”document.pdf”. (Note the inclusion of two single apostrophes at the beginning of the attachment name.) The PDF itself was not malicious and did not contain any active code. The document prompted the user to click on a link should a download not automatically begin. (Note: No code within the PDF initiated a download.) The link directs users to a website via a shortened URL, which may prompt them to retrieve a malicious file.

In previous reporting, DHS and FBI identified the common themes used in these spear-phishing emails, all emails referred to control systems or process control systems. The threat actors continue to use these themes, specifically against intended target organizations. Email messages include references to common industrial control equipment and protocols. The emails leveraged malicious Microsoft Word attachments that appear to be legitimate résumés or curricula vitae (CVs) for industrial control systems personnel, as well as invitations and policy documents that entice the user to open the attachment. The list of file names has been published in the IOC.

#### Stage 4: Exploitation

Threat actors used distinct and unusual TTPs (i.e., successive redirects) in the phishing campaign directed at staging targets. Emails contained a stacked URL-shortening link that directed the user to [http://bit\[.\]ly/2m0x8IH](http://bit.ly/2m0x8IH) link, which redirected the user to [http://tinyurl\[.\]com/h3sdqck](http://tinyurl[.]com/h3sdqck) link, which redirected the user to the ultimate destination of [http://imageliners\[.\]com/nitel](http://imageliners[.]com/nitel). The [imageliners\[.\]com](http://imageliners[.]com) website contained an email address and password input fields mimicking a login page for a website.

When exploiting the intended targets, threat actors used malicious .docx files to capture user credentials, however, DHS did not observe the actors establishing persistence on the user’s system. The documents attempt to retrieve a file through a “file:\” connection over SMB using Transmission Control Protocol (TCP) ports 445 or 139 and User Datagram Protocol (UDP) ports 137 or 138. This connection is made to a command and control (C2) server — either a server owned by the threat actors or that of a compromised system owned by a staging location victim. When a user is authenticated as a domain user, this will provide the C2 server with the hash of the victim. Local users will receive a graphical user interface (GUI) prompt to enter a username and password. This information will be provided to the C2 over TCP ports 445 or 139 and UDP ports 137 or 138. (Note: A file transfer is not necessary for a loss of credential information.) Symantec’s report associates this behavior to the Dragonfly threat actors in this campaign. [3]

#### Use of Watering Hole Domains

One of the threat actors’ primary uses for staging targets is to develop watering holes. The threat actors compromise the infrastructure of trusted organizations to reach intended targets. [4] Although these watering holes may host legitimate content by reputable organizations, the threat actors have altered them to contain and reference malicious content. Approximately half of the known watering holes are trade publications and informational websites related to process control, ICS, or critical infrastructure.

Using a similar SMB collection technique, the actors manipulated these websites by altering JavaScript and PHP files that redirect to an IP address on port 445 for credential harvesting.

The compromised sites include both custom developed web applications and template-based frameworks. The threat actors injected a line of code into header.php, a legitimate PHP file that carried out the redirected traffic.

There is no indication that threat actors used zero-day exploits to manipulate the sites; the threat actors more likely used legitimate credentials to access the website content directly.

Now go read the entire document. <https://www.us-cert.gov/ncas/alerts/TA17-293A> Happy computing!

## Vintage Amateur Radios

de Bill Shadid, W9MXQ



This month we stay with Collins and move to a market changing product from the 1950's – the KWM-1 Transceiver. This radio began a trend in ham radio that continues to this day, the ubiquitous SSB/CW Transceiver. In 1957, Collins Radio Company followed the 1955 introduction of the 75A-4 Receiver and KWS-1 Transmitter station with the KWM-1 Transceiver. The KWM-1 was a true station in a box with all operations within a single cabinet. This is the concept that we use to this day. Critical were internal circuits designed to do double duty and be used for both receive and transmit. Up to that point, most “transceivers” were nothing more than a separate receiver and transmitter in the same cabinet. Here is a complete station based on the KWM-1.



**The KWM-1 Transceiver and the 516F-1 AC Power Supply**

The above picture does not clearly show the speaker mounted in the hinged top cover of the transceiver – but you can faintly see the mounting screws for that speaker at the right front area of the top cover. Collins also offered a separate Station Console, the Model 312B-2, to further compliment the home station, provide a station wattmeter, a phone patch, and provide for a front facing speaker. The 312B-2 is pictured here in another view with the KWM-1 Transceiver . . .



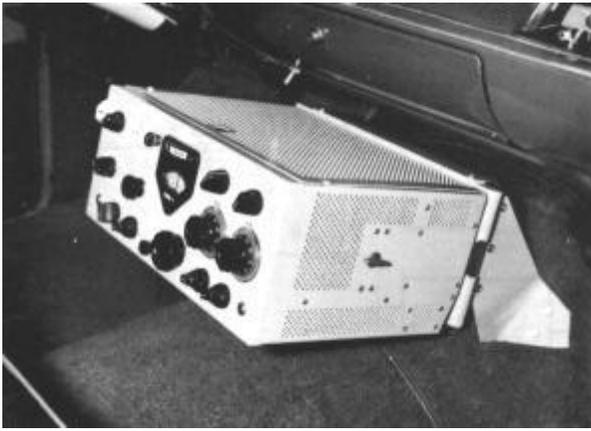
**The KWM-1 Transceiver and the 312B-2 Speaker  
(the 312B-2 included a Speaker, Wattmeter, and Phone Patch)**

A bit of clarification is in order here – every Collins KWM-1 I have seen or owned has had the speaker in the top cover, as shown and mentioned. However, I have never been 100% certain if this internal speaker was standard equipment or a common add-on in the field. I strongly suspect it to have been a common feature added by many or most users. Supporting this notion is the speaker's wiring – by a cable exiting the back to connect to the rear panel speaker socket. But, after sixty-years such things become harder and harder to quantify.

Collins, at the time of the product design, decided to focus on only a portion of the high frequency spectrum and release the transceiver covering only 14 to 30 MHz (Megacycles in those days). But, while band switched in 100 kHz band segments, the radio was general coverage in its range depending on the crystals selected to be inserted in the 399B-1 Crystal Oscillator Assembly at the upper left-hand corner of the front panel. These assemblies could hold up to 10 range crystals allowing 10 ranges of 100 kHz each. A user could use multiple 13C-1 assemblies – removing them and installing another group of ranges at will. If you look carefully at the front panel pictures, above, you can make out the small clips at each side of the 13C-1 units shown installed. So, the radio, with the correct range crystal would cover the entire spectrum from 14 to 30 MHz Today these radios could cover the 17 and 12-meter bands in addition to 20, 15 and 10. This idea of changing the 13C-1 was not common in the days when the KWM-1 was new. It would likely be nearly impossible to find extra 13C-1 units today.

There were also the 399B-1 DX Adapter that allowed split frequency operation, the 399B-2 DX Adapter that was for export sales only, and a 399B-3 Novice Adapter that provided for crystal control of the KWM-1 transmitter section. The 399B-3 would have allowed Novice operators of the time to meet restrictions for Novice class licensees who wanted to use the KWM-1 on 15-meter CW. These 399B-(x) adapters mounted under the transceiver's chassis. The rest bears investigation as I have never seen one of these units installed. It is important to know that when using the 399B-1 or 399B-2 DX Adapters the radio was crystal controlled on transmit – with a selection of seven transmit crystals available for use. I have no personal experience using any of these three Adapters but do have additional information if anyone is interested.

So, why just cover such a limited frequency range? Later, other manufacturers did the same thing but focused on 80, 40, and 20 meters. (National NCX-3, Galaxy 300, Eico 753, etc.) So, why? At the time the KWM-1 was going on the market, Solar Sunspot Cycle 19 was heading for its forecast maximum in 1960. Times were good for 20, 15, and 10-meters. Later manufacturing cycles from other manufacturers focused on the Sunspot Low of about 1965 (between Cycles 19 and 20) – when the 80, 40, and 20-meter bands would be at their best. Also at the time of the KWM-1, removing the larger output tank circuit components for the lower frequency bands relieved pressure on the designers for getting all the necessary RF components in a package that could fit under the dash of a car – another important component of the KWM-1 design. Observe this typical installation of a KWM-1 Transceiver in an automobile of the day.

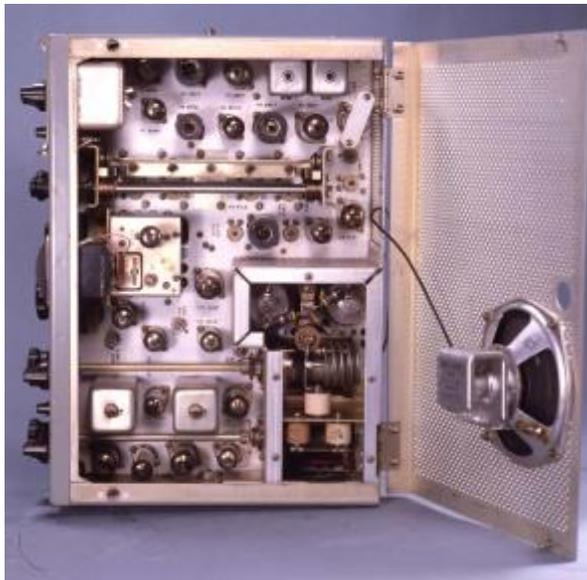


Typical mobile installation of the KWM-1 Transceiver in an automobile of the late 1950's. Mounting used the Collins 351-D1 Mobile Mount. Not visible in this view is the Collins 516E-1 DC Power Supply. The 526E-1 is probably mounted on the other side of the firewall, in the engine compartment. However, some installations used a separate battery, along with the 516E-1 mounted in the trunk of the vehicle.

A logical question follows about why other manufacturers managed to get all the HF bands in a similar sized package. Indeed, so did Collins only a short time later with the KWM-2 Transceiver (chronicled in an upcoming installment). They quickly improved in becoming more efficient with packaging the components in smaller and smaller cabinetry. That is a trend we see every day in electronics.

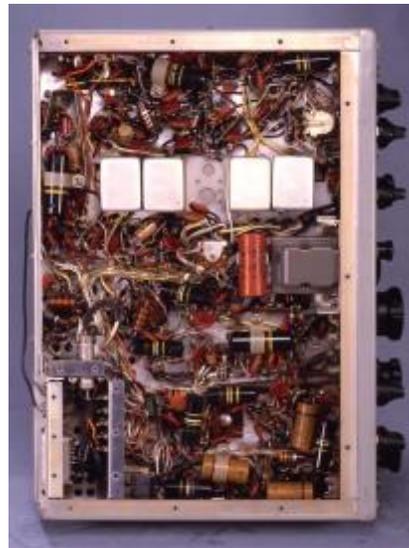
The KWM-1 introduced what became a standard Power Amplifier for the rest of Collins Radio Company history with vacuum tube Transmitter/Exciter products. Collins chose to use a pair of the 6146 Beam Power Tetrodes developing a power input of 175 watts CW and PEP SSB (about 100 watts output). This extended through the Collins KWM-1 life cycle and all products until the introduction of the all solid-state Collins KWM-380 Transceiver in 1979.

To get an idea of the internal complexity of the KWM-1 design. I show two pictures of the interior of the radio. Please note .



**Top Interior View**

**Speaker is mounted on the Hinged Cover.  
S-Line/KWM-2 Owners will note similarities.**



**Bottom Interior View**

**See component density with  
multiple layers of components.**

I regret that I no longer have a Collins KWM-1 Transceiver in my collection. The pictures here are from WA3KEY, The Collins Collector Association, and The Collins Radio Association. I have restored three of these radios – one of which was my own. It has been perhaps ten years since I owned one. They are very nice to use, have very pleasing audio, but as was happening with Collins at the time, were very difficult to use on CW. It seems that Single Sideband had smitten

Collins founder Art Collins, Chief Executive Officer of Collins Radio Company at the time. Even AM was absent from the Mode Switch.

In my last installment, the Collins Gold Dust Twins article in the October Newsletter, I said that the article this month would cover the Collins S-Line. The KWM-1 shown here is so significant in the market that I felt it deserved comment first. So, back on schedule next month with the Collins S-Line – the 75S- Series Receiver and the 32S- Series Transmitter.

## UPCOMING EVENTS

**MRC Amateur Radio Fest – November 4, 2017 – ELKS Club across from HRO on Good Hope  
Breakfast at Jim's Grill in Echo Plaza in Cedarburg – November 4 at 7AM  
Membership meeting – November 8, 2017**

### This Month in ORC History: 32 Years Ago

Edited by Ben Evans, K9UZ

*The following is an edited version of the minutes from the ORC meeting on November 13, 1985.*

#### MINUTES OF THE NOVEMBER 13, 1985 ORC MEETING

- by Cindy Douglas, KA9PZG, Secretary -

The REGULAR MEETING was opened at 7:31 PM by WB9RQR, Stan Kaplan, ORC President.

The Secretary's report was accepted as published in the November 1985 issue of the ORC Newsletter.

The Treasurer's Report was given by WB9LNL, Tom Oehler, Treasurer, and accepted by the members.

#### OLD BUSINESS:

ORC CLUB NAME CHANGE PROPOSAL: AA9W handed out information flyers outlining pros and cons of changing the club name. It was decided to have a referendum type vote at the January meeting to see if a majority of the membership cares to pursue the issue further. At the December meeting we will try to come with a selection of names to be considered.

SWAPFEST COMMITTEE UPDATE: KA9DDN reported that tickets and flyers are available now. The next swapfest committee meeting was arranged for November 20 at the home of WA9UVK. The strategy for advertising will be to concentrate more on the southeastern Wisconsin hamfests rather than going into northern Illinois.

#### NEW BUSINESS:

NOMINATING COMMITTEE – 1986 OFFICERS: Joe Porth, N9DPE, and Jim Albrinck, KA9QLP, were appointed as the nominating committee.

UPCOMING SWAPFEST: The group was reminded that the 146.91 Friendly Fest at Serb Hall will be held on November 24.

FIELD DAY 1985 RESULTS: The results of our Field Day expedition were discussed. ORC came out 12th in the 4A classification nationwide.

The meeting was closed at 8:08 PM.

Refreshments were served by Bob Williams, W9DQS.

Bob Paquette, who owns and operates Select Sound Service in Milwaukee, gave a very interesting talk and slide presentation on the history of the microphone. Bob has a microphone museum which is likely the largest in the nation. We were told that people are sometimes referred to him by the Smithsonian for information about microphones.

## Ozaukee Radio Club

### September, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary



President Kevin S. (K9VIN) called the meeting to order at 7:33 PM. All the attendees introduced themselves.

#### **Announcements:**

Robert (KD9JLE) passed his Technician Class license exam. – Kevin (K9VIN) told the group to check out the crystal radio during the break that was brought in by Stan (WB9RQR) and built by Stan and Bill Howe. Kevin also brought one of his own.

Chris Kelling (KC9UXC) came to the meeting to talk about his efforts to bring an ARISS contact to a Wisconsin school and invite ORC members to help out. The ARISS program allows students around the world to talk to crew members on board the International Space Station via amateur radio. The Milwaukee Radio Amateur Club (MRAC) is sponsoring this effort for a local school's application for an ARISS QSO by providing the equipment and operational support enabling direct communication between students and the ISS crew. However, other local ham radio operators are invited to participate in this effort as well.

#### **Program:**

John S. (W9FAD) gave a presentation on the topic of AC induction motors.

#### **50/50 Drawing:**

Pat (W9JI) was the winner of the 50/50 drawing.

#### **Auction:**

Stan (WB9RQR) conducted the auction. About 9 items were sold or given away.

#### **Officer Reports:**

Kevin S. (K9VIN) President – K9VIN gave members an oral summary of the actions taken by the ORC Board the previous week, which are as follow:

- Robert Eskola has been appointed the Second Vice-President to

serve out the rest of the term.

- It has been made official that the St. Mary's Curling Center in Cedarburg is approved as the venue for the Spring 2018 Swapfest.
- The Scholarship Committee will be authorized to make the decision to move the administration of the ORC Annual Scholarship Award from the Foundation for Amateur Radio to the ARRL Scholarship Foundation.
- The Scholarship Chairman or his/her designee who is a member of the Scholarship Committee will be made a voting member of the Board in matters regarding the Scholarship Fund.
- The following ORC members are approved officially as members of the Scholarship Fund Project Committee: Tom Ruhlmann, Chairman; Ed Rate, Treasurer; Chuck Curran; Stan Kaplan; John Strachota; Gary Drasch.
- The Scholarship Fund Project will be authorized to establish an eBay account to facilitate the sale of donated equipment on eBay.

Pat V. (W9JI), 1st VP – Real progress is being made on the formation of the club inventory. A list was received from Tom T. (KC9ONY), the Repeater VP. If any members are in possession of club property, let Pat know. He would like to get the inventory done by end of year.

Robert E. (KD9JLE), 2<sup>nd</sup> VP – No report.

Tom T. (KC9ONY), Repeater VP – No report.

Ben E. (K9UZ), Secretary – The minutes from September's meeting is in the newsletter.

Treasurer – Ben E. (K9UZ) gave the September treasurer's report in Treasurer Dave B.'s (N9UNR) absence. Club income in September was \$686.39, almost all due to the Fall Swapfest. Expenses for the month totaled negative \$390.66 mostly due to money coming back from the reservations for the Corn Roast site and the Field Day site. The net income, then, was \$1,077.05. The income for scholarship was \$556.37 for equipment sales and interest, \$501 of which was from the swapfest. Tom R. (W9IPR) clarified that the net profit for the club from the swapfest was \$216. Gary D. (K9DJT) asked what the bank balance for the club was, and the answer was about \$20,000. Nels (WA9JOB) pointed out that some of the money is segmented for various uses, such as the repeater fund. Tom (W9IPR) said that the allocation of funds should be specified in the upcoming budget. A motion to accept the report was made by Ben, seconded by Nels and passed without debate.

### **Committee Reports:**

Tom R. (W9IPR), Scholarship – Report on the Fall Swapfest is in the newsletter. Gate income was \$625, representing an attendance of 125 people. This is down by about 75 people compared to last year. However, there were about another 25 non-paying, for a total of about 150. There were only eleven vendors, likely impacted by the Radio Expo Hamfest in Belvidere, Illinois, which also likely affected the attendance. The conflict was known, but the Chicago FM Club wouldn't commit to a firm date before our club had to commit to a date for our swapfest. The number of buyers wasn't what it used to be, but both the club and the scholarship made a profit of \$216 and \$501, respectively. The

Cedarburg High School Robotics Club broke even on the concessions, and expressed interested in doing this for us again. Tom thanked everyone who got involved with the swapfest, especially Jim A. (K9QLP). Robert (KD9JLE) commented that our flyers at HRO kept going to the bottom of the rack even when our swapfest was imminent, and he twice put them on the top. Ken B. (W9GA) commented that he sold very well.

**Old Business:**

There was no old business.

**New Business:**

Ed R. (AA9W) reminded members that he can write tax exemption letters, so please feel free to donate to the Scholarship Fund. Tom (W9IPR) said that he doesn't want "junk" for donations. In response, Stan (WB9RQR) encouraged members to give him their old computers so he can fix and resell them, or recycle them by taking them apart.

Tom (KC9ONY) reported that two more QSL cards were received from the Lighthouse Event.

Stan (WB9RQR) talked about the crystal radio built by him and Bill Howe that was brought into the meeting. Stan explained its design and how it worked. He said it was his wish to have the radio displayed in a place where people can come and look at it, perhaps a library or other public place.

**Adjournment:**

A motion to adjourn was made, seconded and passed. The meeting was adjourned at 9:11 PM.

**Attendance:**

There were 38 members and 1 guest 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

## AGENDA

November 8, 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: 50/50 – Kristian Moberg, KC9TFP
5. Fellowship Break
6. Auction – Stan Kaplan (WB9RQR)
7. Presidents Report – Kevin Steers (K9VIN)
8. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
9. 2<sup>nd</sup> VP Report – Robert Eskola. (KD9JLE),
10. Repeater VP report – Tom Trethewey, (KC9ONY)
11. Acceptance of Minutes : Ben Evans (K9UZ),
12. Treasurer's report – Dave Barrow (N9UNR)
13. Committee reports.
  - A. Spring Swapfest
  - B. Other:
14. OLD BUSINESS
15. NEW BUSINESS
16. 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, November 8<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting



# 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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Volume XXIX

December, 2017

Number 12

## From the President

*De Kevin Steers (K9VIN)*



It was a dark and stormy night. Let me tell you folks, the hardest part of being president is sitting down and figuring out how to start my monthly article. But seriously, with the storms and winds, of late, it is a miracle that my dipoles are still hanging. Speaking of which, I am hoping that winter is finally upon us, since I am waiting for the lake to freeze, so I can put a military mast up, on the lake, to straighten one dipole leg. I have really been enjoying the weather up until last Monday, but I am ready for the snow and cold, so we can usher in a festive Christmas, and get another winter behind us.

If you were not at the last meeting, you missed an opportunity to bid on an Ultimate Trans-match that was built by Stan Kaplan WB9RQR. It was recently donated to the club, from an SK, and I remembered the last time it was auctioned, I had no money in my pocket. I remembered that Stan mentioned not building another, so I thought it would be a nice, rare, piece of equipment for the shack. It took me a day of polishing and learning, but now it works beautifully. It is an honor to own it!

Recently I was given what I thought was a Westinghouse Tabletop Radio, but I have come to realize that it is actually a 24W audio amplifier. I am determined to re-cap it and get it working again, even if it is to be used with my I phone music library. I have started to go down the rabbit-hole of learning all about Capacitors and how to replace them. I hope to undertake that project sometime this winter.

A few weekends ago, I was passing through Plover, WI, and decided to pop in on a fellow ham that frequents a 160M sched on Friday evenings. It was only a brief eyeball QSO, but I got a quick tour of his ham shack, replete with nearly a dozen functional boat anchors, and then come to realize he also specializes in restoring antique Radios, chassis, cabinet and all! He probably made recapping sound easier than it really is, but I am determined to add that to my arsenal of skills.

Have a happy holiday season everyone, and please make 2018 the year to consider contributing to the helping to run this fine club; elections are right around the corner!

73,  
K9VIN

DX'ing & Contesting  
*De Gary Sutcliffe (W9XT)*



December's big events are the holiday season. There is another December holiday that was celebrated long before our modern ones. That is the winter solstice. It is the shortest day of the year as far as daylight is concerned.

About 5000 years ago, people who lived in what is now southern England started building Stonehenge, a circular structure made of stone. The stones were aligned with the point the sun rose on the winter solstice. Over the next several thousand years different groups occupied the region. They added other artifacts to the site and practiced religious activities at Stonehenge. To early people whose lives depended on nature, knowing that the sun would return and bring warmer weather and the plants and animals they depended on was a pretty important thing.

Today most people celebrating the winter solstice do it as an excuse to party. If you fall into that group, it will happen this year on Thursday December 21<sup>st</sup>, at 16:28 UTC. For hams the long hours of darkness around the winter solstice have a very large effect on radio propagation. Opening on the higher HF bands will be shorter. Part is due to shorter periods of day light and part is where we are in the current solar cycle.

Conditions on the lower bands will be better. Part because of longer hours of darkness, part because thunderstorms and the QRN they produce are down, and part because of lower sunspot numbers. It is no wonder the ARRL 160M contest and the CQ 160 Meter contests are in December and January.

The ARRL 160 Meter contest was the first weekend of this month. I spent some time on it. From what I saw conditions were pretty good. I heard a lot of Europeans. Running only 100 watts, I was only able to work a Spanish station. Conditions to the south and west seemed down from usual. Some stations I usually work in the Caribbean were very weak. I never heard Hawaii, something that is usually pretty easy for me to work even with low power. The 160 meter band is a special challenge, and now is the time of the year to operate it.

I'm interested in seeing what is going to happen on 6 meters over the next 6 weeks or so. As you remember, the new FT8 mode came out early last summer. It was designed to be used on 6M. FT8 users were able to make QSOs with signal strengths 20 dB or more below the levels needed to make a CW contact. Lots of QSOs were made on "dead" bands.

Sporadic E (Es) propagation peaks in June and July. I got on FT8 on 6M in early August, after the end of the Es season as we know it. I was still able to work a few DX stations. There is second, but smaller Es season starting in December and running into January.

With more stations running FT8 it will be interesting what develops on 6 meters this winter. If you have 6M capability check out the FT8 frequency (50.313) while running FT8 from time to time. Don't be afraid to call CW either. You never know what will come back. If 10 meters has strong signals, it is possible 6 Meters is also open.

With the holidays, contests drop off this month. As mentioned before, the ARRL 160 Meter contest was the first weekend of the month. If you missed it, there is the Stew Perry Top Band DX Challenge (TBDC) on December 30-31. It is a 24-hour contest, but you can only operate 14

hours. That is good because you don't have to waste the daylight hours calling CQ and making a couple of contacts per hour to be competitive.

For this one you send your grid square. Points are calculated based on distance. Longer contacts are worth more points. Don't worry, your logging program will calculate point value for you. As with many contests, you get more points per contact if you are running low or QRP power.

The twist with the TBDC is that you get extra points for *working* low power and QRP stations. Often, it is the big gun station doing all the work, but the low power station is getting the extra points. This gives an incentive for bigger stations to dig out the weak ones.

The contest sponsor uses logs sent in by low power and QRP stations to determine which were not high power. They then award points based on the QSOs. You really don't know your score when you send in your logs. They have a web page with claimed scores. Your call will show up when you send in your log. Over time your score will go up as other stations send in their logs and you get awarded extra points. Where you place will depend will go up and down based on how many higher point stations you worked and how many your competition did.

This is quickly becoming one of my favorite contests because stations have a lot of incentive for listening hard for weak stations, both because they might be long distance and worth a lot of points and because there might be more power based points for making the contact. Note that there are no multipliers for this contest. Your score is just the total of QSO points. Full rules at <http://www.kkn.net/stew/>

The ARRL 10 Meter contest is December 9-10 UTC. With the solar cycle as it is, the 10 Meter Contest will be like a VHF contest this year. Hopefully we will get some sporadic E openings. If we get a strong opening, you can make a lot of contacts. My personal best one hour QSO total was during an Es opening during a 10 Meter Contest. I made 250 contacts during that hour. Needless to say, it was a real rush. Usually I get pretty excited when I can break 100 contacts per hour.

There are many operator categories for the ARRL contest including CW only, phone only, mixed mode, different power levels and with and without DX cluster assistance. Oh yeah, there is also a multi-operator class. You can check out the rules at <http://www.arrl.org/10-meter>.

Major DXpeditions are a bit light in December. There are several holiday style operations as hams go to warmer locations to spend Christmas. Ham radio often takes a secondary status to other activities and you just have to be on the air when they are.

You might hear the special events station W9G on between now and December 10. It is to celebrate the 40<sup>th</sup> anniversary of the Greater Milwaukee DX Association (GMDXA). Several members of the ORC are also members of the GMDXA. They are K9DJT, W9GA, W9MXQ and me, W9XT. If you contact W9G you might be working one of us!

Finally, don't forget to ask Santa for a new radio. Merry Christmas and Happy New Year!

# THE COMPUTER CORNER

## No. 238: Good Security Habits

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664  
(262) 268-1949 wb9rqr@att.net



It is not unusual for me to run across good articles that are worthy of reprinting in the Computer Corner column. This is one. Some of the suggestions may seem to you self-evident, but it is good to have one's awareness heightened now and then even with self-evident information. Reprinted by permission granted to Stan on 29 Nov. 2017. Copyright 2017 US-CERT All Rights Reserved.

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# US-CERT

UNITED STATES COMPUTER EMERGENCY READINESS TEAM

### Security Tip (ST04-003) Good Security Habits

Last revised: August 18, 2016. **Authors** Mindi McDowell and Allen Householder. Reprinted with permission granted to Stan on 29Nov2017. Copyright 2017 US-CERT All Rights Reserved. There are some simple habits you can adopt that, if performed consistently, may dramatically reduce the chances that the information on your computer will be lost or corrupted.

**How can you minimize the access other people have to your information?** You may be able to easily identify people who could, legitimately or not, gain *physical* access to your computer—family members, roommates, co-workers, members of a cleaning crew, and maybe others. Identifying the people who could gain *remote* access to your computer becomes much more difficult. If you have a computer and connect it to a network, you are vulnerable to someone or something else accessing or corrupting your information; however, you can develop habits that make it more difficult.

- **Lock your computer when you are away from it.** Even if you only step away from your computer for a few minutes, it's enough time for someone else to destroy or corrupt your information. Locking your computer prevents another person from being able to simply sit down at your computer and access all of your information.
- **Disconnect your computer from the Internet when you aren't using it.** The development of technologies such as DSL and cable modems have made it possible for users to be online all the time, but this convenience comes with risks. The likelihood that

attackers or viruses scanning the network for available computers will target your computer becomes much higher if your computer is always connected. Depending on what method you use to connect to the Internet, disconnecting may mean disabling a wireless connection, turning off your computer or modem, or disconnecting cables. When you are connected, make sure that you have a firewall enabled.

- **Evaluate your security settings.** Most software, including browsers and email programs, offer a variety of features that you can tailor to meet your needs and requirements. Enabling certain features to increase convenience or functionality may leave you more vulnerable to being attacked. It is important to examine the settings, particularly the security settings, and select options that meet your needs without putting you at increased risk. If you install a patch or a new version of the software, or if you hear of something that might affect your settings, reevaluate your settings to make sure they are still appropriate.

**What other steps can you take?** Sometimes the threats to your information aren't from other people but from natural or technological causes. Although there is no way to control or prevent these problems, you can prepare for them and try to minimize the damage.

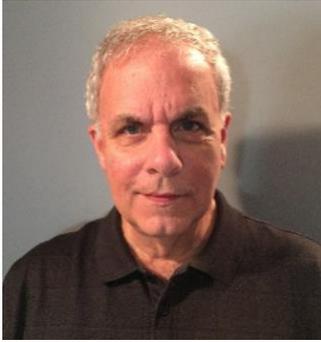
- **Protect your computer against power surges and brief outages.** Aside from providing outlets to plug in your computer and all of its peripherals, some power strips protect your computer against power surges. Many power strips now advertise compensation if they do not effectively protect your computer. Power strips alone will not protect you from power outages, but there are products that do offer an uninterruptible power supply when there are power surges or outages. During a lightning storm or construction work that increases the odds of power surges, consider shutting your computer down and unplugging it from all power sources.
- **Back up all your data.** Whether or not you take steps to protect yourself, there will always be a possibility that something will happen to destroy your data. You have probably already experienced this at least once—losing one or more files due to an accident, a virus or worm, a natural event, or a problem with your equipment. Regularly backing up your data on a CD or network reduces the stress and other negative consequences that result from losing important information. Determining how often to back up your data is a personal decision. If you are constantly adding or changing data, you may find weekly backups to be the best alternative; if your content rarely changes, you may decide that your backups do not need to be as frequent. You don't need to back up software that you own on CD-ROM or DVD-ROM—you can reinstall the software from the original media if necessary.

*Both the National Cyber Security Alliance and US-CERT have identified this topic as one of the top tips for home users.*

**Happy Computing!**

# Vintage Amateur Radio

De Bill Shadid, W9MXQ



“The Day the Universe Changed: A Personal View by James Burke” was a popular BBC television documentary from 1985 wherein science historian, James Burke, talked about technological change throughout history. Burke, one of my favorite authors and documentarians, was not talking about ham radio but was discussing historical events that had long term impact on society. In 1957, Collins Radio Company changed ham radio when they introduced the S-Line series of radio equipment. Here is the operating S-Line station that lives at W9MXQ:



**Collins 32S-3 Transmitter, 312B-4 Console, 75S-3B Receiver, 30L-1 Linear Amplifier  
Also, Shure 444 Microphone and Heathkit HD-1410 Keyer  
Initially, the amplifier was the floor mounted 30S-1 – the 30L-1 came slightly later  
(W9MXQ Shack Photo)  
(Not shown is the Collins 516F-2 AC Power Supply – installed out of this view)**

Coming off the critical success of the Gold Dust Twins (the 75A-4 Receiver and KWS-1 Transmitter – detailed in a previous installment), Collins recognized the market demand for the same receiver the transmitter power performance of the Gold Dust Twins in a package that was table top in size and easy to handle. Also, houses were getting smaller with less space available so there was demand for performance in a smaller package. That triggered the 1957 introduction of the 75S-1 Receiver and 32S-1 Transmitter. More popularly known as the “S-Line” after the letter series of the radios.

A major feature of the S-Line was the separate transmitter/exciter and linear amplifier (the 32S-1 Transmitter and 30L-1 Linear Amplifier). A station could, at the flick of a switch, operate efficiently at 180 watts (PEP SSB or CW) input power (nominal 100 watts output) barefoot or 1,000 watts (PEP SSB or CW) input power (nominal 500 - 600 watts output) with the linear amplifier engaged. With only a few short-lived exceptions, this set the stage for virtually all future product offerings for both separate receiver/transmitter and transceiver station setups. To be clear, initially the amplifier with the S-Line was the floor-mounted 30S-1, not the 30L-1. Ultimately the 30L-1 became the more popular of the two.

There were three major feature reductions in the S-Line as initially introduced, depending on your point of view. One was the rather dismal feature set for CW transceive operation, another was the elimination of AM transmit in the 32S-1 Transmitter, and the elimination of any QRM handling in the 75S-1 Receiver. The 75S-1 was an excellent AM and SSB Receiver, otherwise. The later “3-series” versions of the S-Line (as are in my own collection) greatly improved all these shortcomings.

When I suggest that this introduction changed ham radio forever, I am talking about how we saw ham radio equipment from the 1950’s perspective. Before the S-Line, equipment was huge. A

ham station from market leader Hallicrafters, at the time, was more than twice the mass, item by item, of the new Collins designs in the late 1950's. Collins, if they made any error in the release of the S-Line it might have been in their market research as to price. Their price point was so tremendously high that they failed to virtually crush the competition. Maybe that was by design – who can know that today? In fact, it will be the subject of some future articles to show how in a few years Hallicrafters and perhaps especially Heathkit and Drake stepped up to the game and matched and/or exceeded Collins at their own game with a much lower price.

Over the years, very little changed in the S-Line separate transmitters and receivers. However, there were a few things that are worth mentioning. In case of the 32S-1 vs. the 32S-3 Transmitters, please see the following information:



**Collins 32S-1 Transmitter**  
(W9JI Shack Photo)

This is the S-Line SSB/CW Transmitter as released in 1957. It worked well but lacked some features added in the somewhat later 32S-3 (see just below). Note the open position between the FREQ CONTROL and MIC GAIN controls. Much stayed the same in this design throughout the product life cycle. See further information appears later in the article.



**Collins 32S-3 Transmitter**  
(W9MXQShack Photo)

This updated 1962 version of the 32S-1 adds a CW CALibration control with a center mounted Spot button. Added circuitry made for a much more practical transceive operation on CW. But, Collins never seemed to fully correct the issues with CW operation on this transmitter series. Operating the receiver and transmitter as separate units (not in transceive) eliminated the problems.

The S-Line receivers changed as well. In the case of the 75S-1 vs. the 75S-3 (and the somewhat later and very similar 75S-3B). Some changes were important operational steps. I might add here that many hams felt, and still feel, that the 75S-3 was the best of the S-Line receivers. They feel that the somewhat later 75S-3B was a “cost reduced” radio. Maybe so – but a fact certainly not evident in its selling price! The 75S-3B and 75S-3 have both been used in my shack with little noticeable difference when used in my primary mode – single sideband. (My use of CW, however, is mostly with vintage radios.) The following chart shows visually the development in the models:



**Collins 75S-1 Receiver**  
(RigPix Photo)

This is the new S-Line Receiver model as it was released in 1957 as a SSB/AM/CW Receiver. It worked well but lacked some features added in the somewhat later 32S-3 and 75S-3B (see just below). Note missing AGC controls and any form of QRM reduction.



**Collins 75S-3B Receiver**  
(W9MXQShack Photo)

This updated (in 1961) version of the 75S-1 showed the addition of a tool for QRM removal – Rejection Tuning (essentially a Q-Multiplier). This had been included in the 75A-4 design but was omitted when the 75S-1 was introduced. Also, the 75S-3 and 75S-3B design accommodated additional filters to enhance CW and narrow-SSB reception, and improved switchable AGC. The 75S-3 was introduced in 1961 and the 75S-3B, shown here, came in 1963.

Collins ham station operators did not completely accept the upgrades of the 32S-1 to 32S-3 Transmitters. Upgrading of the 75S-1 to a 75S-3 or 75S-3B was much more popular because of more significant upgrades to the design. To that end, many stations found today are equipped with a 32S-1 Transmitter and a 75S-3 or 75S-3B Receiver. A fine example of this is in the shack of our fellow member, Pat, W9JI. See his Collins S-Line station equipment:



Collins 32S-1 Transmitter



Collins 312B-4 Console



Collins 75S-3 Receiver

Items here are from the shack of Pat, W9JI

(Not shown here is the 30L-1 Linear Amplifier that is a part of this station)

(W9JI Shack Photos)

Many Collins stations were sold to the US Government for use in various military, MARS Radio (Military Auxiliary **R**adio System), and US Embassy (US Department of State) service. This was preceded by 75A-4/KWS-1 installations and succeeded by Drake R-4C/T-4XC and TR7/R7 radios as time went along and Collins exited the HF radio business. Collins S-Line equipment covered the band in 200 kHz segments from 3.5 to 30 MHz on the ham bands. The 200 kHz segments allowed better mechanical linearity across the range than the 500 kHz segments in their competition's radios. But, that triggered the need for more ranges on any given radio. Check these two pictures of the two different bandswitch arrangements on S-Line equipment:



Standard Coverage

(W9MXQ Shack Photo)



Expanded Coverage

(RigPix Photo)

The bandswitch on the left came on the standard S-Line models. The one on the right (Expanded) has a switch at the top that allows for a second bank of range crystals and, therefore, twice the number of ranges. The information in the vertical windows would shift when the switch was moved. See more details below.

In my experience, the Expanded Coverage units in the S-Line receivers and transmitters are not particularly common. They appear and are not rare but not commonly seen. The transceiver members of the S-Line family seem to include more Expanded Coverage models in the currently available population. The problem with the Standard Coverage models comes from today's desire to use the WARC bands – 60, 30, 17, and 12 meters. While the S-Line products are perfectly capable of operating on all HF bands, 3.5 to 30 MHz, one will find that in doing so the bandswitch becomes overcrowded. Crystals are easily changed in individual bandswitch positions via access through the easy to open top cover on either the Receiver or the Transmitter.

The expanded bandswitch could be field added to any Collins S-Line radio but it was also a separate model from the factory. Check this chart for model designations:

Standard Coverage Models	Expanded Coverage Models
75S-1 Receiver	75S-2 Receiver
75S-3 Receiver	75S-3A Receiver
75S-3B Receiver	75S-3C Receiver
32S-1 Transmitter	32S-2 Transmitter
32S-3 Transmitter	32S-3A Transmitter



# Additional Information On Broadcast Radio History

De Patrick Volkmann ( W9JI )



After my presentation on the Regenerative Receiver at the November meeting several people asked me where they could get some more information.

While searching for some pictures of early Marconi Company radio equipment I came across the web site of the American Museum of Radio and Electricity, in Bellingham, Washington. The pictures were very high quality, much nicer than the typical website photos. I contacted John Jenkins, founder of the Museum, and asked his permission to use some of the shots in my presentation. John graciously agreed. As it turns out, John has also written a book covering the early history of electricity and radio. The book is [Where Discovery Sparks Imagination - A Pictorial History of Radio and Electricity](#) by John Jenkins. The pictures were so good that I bought a copy. It is an extraordinary collection of pictures of radios, tubes, scientific apparatus and telegraph equipment. Each item is clearly described, so you will know something about its origins and significance. The website can be found at <http://www.sparkmuseum.com>.

If you are looking for the history of early radio as it relates to broadcasting, [The Empire of the Air](#) by Tom Lewis is an excellent book. This book starts with Lee de Forest inventing the Audion and Armstrong inventing the regenerative receiver. Lewis goes on to tell, in a very readable and entertaining style, the story of de Forest, Armstrong and David Sarnoff and how they fought, struggled and ultimately established the broadcast industry that we have today. Hams will, however, note one significant omission. I don't think that there is a single mention of ham radio in Lewis's account of broadcasting. A good, informative read nonetheless.

Historian Ken Burns made a documentary version of Empire of the Air that was shown on PBS. While not as detailed as the book, the documentary is very well done. This is well worth watching. Burns' version does mention amateur radio in passing and has lots of Morse code in the background. You can find it in a number of places on the Internet.

To commemorate the 70th anniversary of FM radio in 2005, public radio station WFDU in New Jersey broadcast several hours of programming. This program is available at <https://archive.org/details/armstrong-commemorative-broadcast> and is entitled "70th Anniversary of FM Radio". The fourth and fifth segments of this program are a radio dramatization of Ken Burns version of Empire of the Air. The dramatization features an all star cast, including Steve Allen, Jayne Meadows, Bonnie Bedelia, David Ogden Stiers, Ed Asner, Harry Shearer, John Astin, John Randolph, Norman Corwin, Peter Bergman, Phillip Proctor and René Auberjonois. The program was produced in the style of an old radio broadcast.

Interestingly, the 70th anniversary programming was also broadcast on 42.8 MHz, Armstrong's original FM frequency. The first FM broadcast band was assigned the 42-50 MHz range, just below the 6 meter band. The current 88-108 MHz band was created by the FCC following World War II.

The early history of radio is well documented, with lots of information available through the Internet. Sadly, there is also a considerable body of information that is simply incorrect, and it can be hard to tell what is correct and what is not. One erroneous example that I came across said that Edwin Armstrong, the inventor of the regenerative, super heterodyne, super regenerative and FM receivers also invented the vacuum tube! This information was at a Columbia University website, Armstrong's alma mater.

## UPCOMING EVENTS

**Membership meeting – December 13, 2017**  
**Election of Officers at the January meeting**

**December 13<sup>th</sup> meeting program "The Gold Dust Twins" by Bill Shadid**

## **Amateur Activity From KB9Q's Narrow Perspective**

**To be added to KB9Q's weekly mailing, send your call sign to [kb9q@arri.net](mailto:kb9q@arri.net)**

The following is extracted from Sherm's mailing and is a listing of local nets.

## **EVERY WEEK . . .**

United States Mideast 160 Meter net, 1.895 MHz, 0100 UTC daily.  
160 Meter Roundtable, 1.865 MHz, 5:00 a.m. Central Time Daily.  
160 Meter Roundtable, 1.895 MHz, 6:30 a.m. Central Time Daily

6 meter SSB, 50.160 MHz, Tu, 9:00 a.m., Central Time, MKE

6 meter SSB, 50.140 MHz, Tu, 8:00 p.m., Central Time, Kalamazoo Michigan, K8BKB NCS

6 meter AM, 50.400 MHz, Su, 7:00 p.m., Central Time, Michigan

"Breakfast roundtable", Mornings at 7:30 a.m. (Central Time) on 144.155 MHz USB

10-10 International: Monday - Saturday 1800 UTC 28.380 MHz (also 28.800 MHz with propagation)  
Milwaukee Chapter 10-10 International: Sunday and Wednesday Nights 28.365 MHz, 8:00 p.m. Central Time.

(Monday and Thursday 02:00 UTC During CST and 01:00 UTC During CDT)

Milwaukee Radio Amateurs' Club 28.490 MHz, 8:00 p.m. Central Time Friday

222 Tuesday, any mode, any time. Start at 222.1 MHz USB, 223.5, MHz FM, 222.070 MHz PSK,

Don't forget Repeaters. (224.820 pl.127.3 Tuesdays 9pm-10pm in SE WI)

MISOE repeater W9HHX Monday night Net @ 8:00 PM 145.27 MHz, 127.3 PL After that net ends they move to 28.365 USB

## **WEEKLY TWO METER SSB ACTIVITY**

Central Wisconsin: Wednesday, 8:00 p.m. Central Time, 144.240 MHz, NCS WB9LYH

Chicagoland: Thursday 7:00 p.m. Central Time, 144.220 MHz, NCS N9JBW

Chicago-Ohio: Friday 7:00 p.m. Central Time, 144.215 MHz, NCS KC9IFZ

## **FROM MICHIGAN:**

Sunday 9:30 p.m. 144.155 USB K8NFT (EN62ws)

# Ozaukee Radio Club

## November 8, 2017 Meeting Minutes

Ben Evans (K9UZ), Secretary



President Kevin S. (K9VIN) called the meeting to order at 7:36 PM. All the attendees introduced themselves.

Kevin mentioned the recent passing of ORC member Mark Fielkow (KB9PXE) and asked for a moment of silence.

### **Announcements:**

Todd F. (N9DRY) talked about Mark's passing, and he brought a couple of items that belonged to Mark to show the meeting attendees. Both items in frames, one was 4 KB of core memory from a Univac computer and the other was "new memory" of 8 GB.

### **Program:**

Pat V. (W9JI) gave a presentation on the topic of regenerative receivers.

### **50/50 Drawing:**

There was no 50/50 drawing.

### **Auction:**

Stan K. (WB9RQR) conducted the auction. About two dozen items were sold, including a desktop computer, a car charger and a transmatch tuner. A couple other items were given away.

### **Officer Reports:**

Kevin S. (K9VIN) President – No report.

Pat V. (W9JI), 1st VP – There was additional input to the club inventory, courtesy of Ken B. (W9GA). If any members are in possession of club property, let Pat know.

Robert E. (KD9JLE), 2<sup>nd</sup> VP – Not in attendance, so no report.

Tom T. (KC9ONY), Repeater VP – There is a noise issue with the 440 repeater. Need an appointment with US Cellular to get into the facility.

Ben E. (K9UZ), Secretary – The minutes from October's meeting is in the newsletter. Motion to accept the minutes was made, seconded and passed.

Dave B. (N9UNR), Treasurer – Not in attendance, so no report.

**Committee Reports:**

Tom R. (W9IPR), Scholarship – Stuff for sale has in the past been listed on the ORC website in a drop box, but Tom doesn't think anybody looks for them there. Recently, Tom sent out an email with a list of items for sale to the membership, after which five items out of 12 or 13 were sold. In the future, Tom will email for-sale lists as standard practice.

**Old Business:**

There was no old business.

**New Business:**

There was no new business.

**Adjournment:**

A motion to adjourn was made, seconded and passed. The meeting was adjourned at 9:01 PM.

**Attendance:**

There were 35 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](mailto:ben@evansengsolutions.com) for a copy.

Respectfully submitted,



B. Benjamin Evans, K9UZ  
Secretary

AGENDA  
December 13, 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: 50/50 – Kristian Moberg, KC9TFP
5. Fellowship Break
6. Auction – Stan Kaplan (WB9RQR)
7. Presidents Report – Kevin Steers (K9VIN)
8. 1<sup>st</sup> VP Report – Pat Volkmann (W9JI)
9. 2<sup>nd</sup> VP Report – Robert Eskola (KD9JLE)

10. Repeater VP report – Tom Trethewey, (KC9ONY)
11. Acceptance of Minutes : Ben Evans (K9UZ),
12. Treasurer’s report – Dave Barrow (N9UNR)
13. Committee reports.
  - A. Spring Swapfest
  - B. Nominations
  - C. Scholarship
  - D. Other:
14. OLD BUSINESS
15. NEW BUSINESS
16. 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, December 13<sup>th</sup> 2017

7:00 PM – doors open

7:30 – Membership Meeting