



# The *ORC* Newsletter

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

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## From the President

*de Kevin Steers (K9VIN)*



Well, where did the summer go? Field Day is behind us and the September Swap is nearly upon us. We are still looking for a food vendor, and have a few feelers out on that topic. Also, Lighthouse Day is nearly upon us, and it is a well kept secret as a low stress way to get on-the-air experience. It is a great event for the whole family to drop in and listen. The date for the International Lighthouse and Lightship weekend is the weekend of August 18th. I believe most activities occur during normal daylight hours and it takes place at the top of the hill, in Port Washington. Port has a lot going on these days, so plan a day trip with

the family.

I have been enjoying listening to 20 and 40 meters in the car on my weekly three hour commutes, but I don't think the bands have been that grand. Usually only a few strong signals to pick out. Soon, I will be doing a test when up north to run into the house and find stations, and then step into the car to see how much of a compromise the mobile antenna really is.

On the bench, not a lot going on. I brought my NC303 receiver up to the cottage, and have yet to find an appropriate location to set it up. With all the dials and switches, I need to disguise it from my youngest daughter who loves to adjust my rigs, when I am out of the room! Lastly, after having a dipole support rope break recently, I have decided to replace my support ropes with stainless steel welding wire. I had bought two reels from someone on craigslist who was liquidating an estate. I now realize I probably have 5 miles of wire, and can probably spare a bit for the supports. Incidentally, the only downfall I have found with using stainless is the inability to solder it. I have not yet tried to weld, but rather, use wire nuts at the Balun.

Cheers and 73s,

K9VIN  
Kevin

# DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



For some reason, August has always been a month when my interest in the sky peaked. Part of it was that it is warm in August and I didn't have to drag my telescope out in the snow. Part of it is that August is the month of the Perseid meteor shower. Watching shooting stars cross the dark sky is fun, especially when there are a lot of them. Under dark skies the rate on typical years you can see about 60 meteors per hour.

After I got interested in radio and VHF weak signal work, I learned about something called meteor scatter (MS). Essentially it is a technique for bouncing VHF signals off the ionized trails as bits of interplanetary rocks burn up as they pass through the upper atmosphere. Using MS techniques, contacts on VHF it is possible to make contacts out to about 1200 miles.

I would get on 2M SSB to operate during the Perseid shower. You would set up a schedule with another station within range. You would pick a half hour, decide on a frequency and confirm who would be transmitting when.

The transmission periods would last 15 seconds. One station would transmit on the first and third periods of the minute and the other station would transmit on the second and last period. Both stations would start transmitting the calls. I would say "W1ABC W9XT W1ABC W9XT..." for my 15 seconds.

If I heard him send both calls because there was a favorable meteor, I would change my sequence to repeat "W1ABC W9XT S2". S2 was the signal report that I got both calls. I would continue sending that until I heard "W9XT W1ABC ROGER S2" meaning he got my signal report plus my signal report. I would respond with "ROGER ROGER" and when he got that he would send "ROGER 73" concluding the QSO. If he heard me first, the roles would be reversed. With a half hour schedule, my success rate was about 20%. Not very good considering I would on average spend about 2.5 hours per QSO. Note that moon bounce QSOs on CW would follow a similar format.

Does the QSO sequence sound familiar? If you operate FT8, it should. When K1JT first came out with the WSJT software suite, the primary modes were for VHF weak signal work. One of those was for MS operating. Like FT8 revolutionized HF operating, these modes revolutionized VHF meteor scatter and moon bounce.

In the old days with SSB MS, you would often hear the other station but only for a single word or even a single syllable. These were called pings and lasted only a fraction of a second. With MSK144 the call signs and exchanges are transmitted very quickly, over and over during the transmit period. They can send the exchange fast enough to get through on a ping lasting a few hundred milliseconds.

MSK144 really improves the odds of success. Instead of needing a shower, many stations are successful on 6 Meters during the morning hours (when the earth is in the best position to capture the meteors) on normal days. Showers are even better, especially on 2 Meters where it is a bit harder than 6 Meters.

So, what do you need to give this a try? You may already be set and not know it. If you have FT8 running, the software is already on your computer. You just need to change the mode. You will also need a radio that can do SSB on 6 or 2 Meters. Most newer HF radios now have 6, and a few also have 2 Meters. If you have a small beam for these bands, you are all set. Read the WSJT documentation to find out how to use this mode.

The best times will be the nights of August 11-12, and 12-13, from midnight until about noon for radio work. If you can't use the shower for radio work, go outside if it is clear. Visually this will be a good year since the moon will be near new moon, so its light won't wash out meteors. Another reason to look up this month is that Mars is in its closest approach in about 15 years. Look for the bright reddish "star" in the southeast a couple of hours after sunset.

There are a few interesting DXpeditions in August. The Galapagos Islands will be put on as HC1HC/8. The Galapagos are of course the islands with the giant tortoises and other unique plant and animal life. The contest station HC8N used to be extremely active up until about ten years ago. Since then there has been little activity. This one will be on August 7-10. They will be concentrating on the WARC bands using FT8 and CW. The station will be QRP, so don't expect big signals. The Austral Islands will be activated August 13-22. The callsign will be TX5T. They plan to be on all bands, 160-6 Meters, CW, RTTY, SSB, and FT8.

There are some other operations, but most are single operator efforts. Many are holiday style, meaning they will only be on around other vacation activities.

There are a few contests of note in August. The summer CW and SSB NAQPs are this month. These have been covered many times in the past. CW starts August 4<sup>th</sup>, and SSB on August 18. Both start at 18:00 UTC (1:00 PM local) and run for 12 hours, but you can only operate 10 hours. You exchange your name and state. Multipliers are the number of states, Canadian provinces and North American countries worked per band. Rules are at <http://ncjweb.com/NAQP-Rules.pdf>

NAQP is a great contest to get started in, and also good for small stations. The power limit is 100 watts, and since it is a domestic contest, low antennas work well. Give it a try! An interesting one is the Worked All Europe contest. It starts at 00:00 UTC Saturday, August 11 (Friday night, 7:00 PM local) and runs for 48 hours but you can only operate 36 hours. Off times must be at least 60 minutes.

WAE is basically a contest where Europe works the rest of the world. Send RST and a serial number starting with 001. Only work European stations. Multipliers are the number of European countries worked per band, but you multiply the number of 80 Meter countries by four, 40 Meter countries get multiplied by 3, and 20, 15 & 10M countries get multiplied by 2. Besides QSO points for working stations, you can get extra points for "QTCs." These are reports of previous QSOs to a European station. A station might send something like "QTC?" if he wants you to send some QTCs. You can send up to 10 QSO reports to a station. There are some other rules regarding QTCs, and if you are interested in operating it, you should read the rules. <https://www.darc.de/der-club/referate/conteste/worked-all-europe-dx-contest/en/>

That wraps up August. As summer winds down, there are still some interesting things to do on the radio.

# THE COMPUTER CORNER

## *No. 246: IT WAS A DARK AND STORMY NIGHT...*

Stan Kaplan, WB9RQR 715 N. Dries Street Saukville, WI 53080-1664

(262) 268-1949 [wb9rqr@att.net](mailto:wb9rqr@att.net)



On the 4<sup>th</sup> of July, I was sitting in my living room with wife Nancy (KC9FZK), watching TV. Suddenly, a flash of light caught my eye – it was a huge lightning bolt in the southeastern sky. Crash! Nancy heard something go “pop” upstairs. The lights flickered and went out momentarily, then came back on. We both ran up to our second story office. Three computers (always on) were up there. They were my main machine (a desktop that I had built about 10 years ago), and two laptops, one of which was Nancy’s main machine. Of course, the laptops were still on since laptops run off batteries

kept charged by a “brick” charger plugged into the house current. A momentary loss of power would not cause them to go down. The desktop, however, was off, and would not automatically come back on since that was an intentional setting I made during its setup. But, even when I turned its power on, it would not start. I carried the wounded soldier down to the basement workshop.

Two more computers live down in the basement. One, a laptop, is the brain of a Winlink station that runs 24/7. The other is a desktop machine used mainly during rebuilding of computers, to snag software from the internet and load the software on CD’s or thumb drives for porting to machines being worked on. The Winlink laptop was still on. The desktop was off but fired up just fine when I turned it back on.

I checked the wounded soldier - my main machine – the desktop from my second-floor office. The power supply had popped an internal fuse, which I replaced, but the supply still would not operate. The supply was clearly toast. I plugged a spare power supply, known to be good (I have a tester that loads all the outlets), into the motherboard. It would not fire up the motherboard, even when all peripherals were unplugged. Ergo, the motherboard was also toast. My wounded soldier was a dead soldier!

You might ask, why didn’t you have your computers on a surge protector? I did; a surge-protecting power outlet for each. Moreover, I have a very large surge protector that was electrician-installed on my main breaker box to protect all circuits in the house. Its three status lights indicated it was A-OK and not blown after the incident. Whatever zapped my main machine must not have come in on the power lines. Likely it had come in on a network cable. If not that, it could only have been a humungous coincidence – simply time for my desktop to die when the lightning struck. I don’t think it was the latter. It must have been a network cable acting like an antenna, bringing in a big surge.

Well, all of that was just background. What I really want to advertise is my backup and networking scheme that saved me from a lot of grief. The scheme might well work for you. I have mentioned it before, but now it is tried and true.

All 5 of my computers have been partitioned so that they have a C drive, a D drive, and an E drive. C is for Windows itself. D is for programs I have installed such as CCleaner, an image

viewer, Microsoft Office, games, ZIP utilities, PDF utilities, TeamViewer and the like. E alone is the exclusive site for saving my creations: letters that I write (in MyDocs), pictures that I take (in Graphics), schematics I devise, and so on. Additionally, there is a special subdirectory (folder) on my E drive named Nancy's Stuff. It contains the entire contents of Nancy's E drive, including all her creations. Similarly, on Nancy's machine, the E drive has a special folder called Stan's Stuff – a complete copy of my E drive.

With a few keystrokes, I can tell my backup software to do its thing. It looks at my E drive and compares it with Nancy's, and changes Stan's Stuff on Nancy's end to be exactly like mine. It also looks at Nancy's machine, E drive, and makes sure the folder Nancy's Stuff on my E drive is the same as hers. Then it goes out to all three other computers on the network and makes sure their E drive is a duplicate of mine. All that takes about 4-5 minutes, fully automated, while I watch. I had just done all that a day before the main machine died.

So, it was a simple recovery. I physically moved the laptop to the main position, and continued working, just as if the main computer had not died. I did not lose a single file because I had not changed anything between the last backup and the death of the main machine. The backup scheme worked, and it saved me from grief. Even if I had not backed up for a couple of days, things would not have been too bad.

Even if you do not adopt part or all of my scheme, you should back your stuff up. You will find that your creations do not take a whole lot of space, and you can at least back up by copying files to a CD or DVD. That is an insurance policy that just cannot be beat!

Happy Computing!



# Vintage Amateur Radio

de Bill Shadid, W9MXQ



As you have heard me say, I find it interesting to watch how the manufacturers met the challenge put down by Collins with the S-Line separate receivers and transmitters in 1957. Collins introduced a separate receiver and transmitter first in the 75S-1 and 32S-1, respectively. Only later did they later introduce the KWM-2 Transceiver. The other manufacturers seemed to introduce those product lines in reverse – with the transceiver preceding the separate receiver and transmitter. Was that because the movement of the transceiver as the dominant ham radio tool was recognized? Or, was it just easier to get the transceiver through research and development? We will never know for certain. Hindsight is 20-20 from the perspective of the

early 21<sup>st</sup> century making judgments on what was done in the mid-20<sup>th</sup>. Would you believe that these revolutionary changes are now passing sixty years ago? It gets a little disturbing when you personally remember the event.

In 1964, Drake entered the transceive capable separate receiver and transmitter market after the TR-3 and TR-4 Transceivers (reference two past articles on those fine radios). Drake introduced what became one of the most popular sets of separate radios of all time – the Drake R-4 Receiver and T-4X Transmitter – better known as the “Drake Twins” or the “Drake Separates.” They extended with very similar design through the R-4, R-4A, and R-4B Receivers and the T-4X and T-4XB Transmitters. (There was no T-4XA Transmitter.) While similar in appearance, the R-4C Receiver and to some degree the T-4XC Transmitter were new designs and will be the subject of a future article. Below is a beautiful R-4B and T-4XB station owned and operated by my long-time friend, Roger, K9VSK, of Roanoke, in central Illinois:



**Drake R-4B Receiver**



**Drake T-4XB Transmitter**

**R-4B and T-4XB as in operation at K9VSK**

While Collins set the tone of the market by the mid-1960's, they were pretty much alone in making a receiver with crystal or mechanical bandpass filters. Collins was also alone in making provisions for multiple, selectable bandwidth mechanical filters. The others – particularly the very popular and more economical Hallicrafters, Hammarlund, and National receivers (to name three) – had no such feature other than some rather broad “crystal filters” that had variable bandwidth with very broad ultimate attenuation. The popular receivers of the day used tuned circuit designs to determine bandwidth. Some of these radios had a selection of multiple tuned circuit bandwidths. These were economical and functional but only marginally effective alternatives to the Collins design. These tuned circuit designs gave relatively good performance at a 6dB

bandwidth but had very wide “skirts” in their performance characteristics showing very broad bandwidth performance at -60dB down.

Drake introduced a different design concept that turned out to be the focus for designs in the coming years with most manufacturers. The original R-4 brought an early stage crystal lattice filter after the RF Amplifier stage, and the First Mixer stage, at 5645 kHz. While placed perhaps a bit differently, we know this today as a Roofing Filter. However, the R-4 through R-4B Receivers kept the tuned circuit method of determining final bandwidth with a broad “roofing filter.” That said, this early circuit crystal filter assisted the front end of the radio in fighting strong signal overload before reaching the bandwidth determining circuits in the later 50 kHz i-f.

Any R-4 series receiver could transceive with any T-4X series transmitter – so, again, like in the TR-3 and TR-4 series transceivers, all options worked across all model lines within the different models of separates. But, unfortunately, the conversion scheme of the transceivers was not compatible with the R-4 series receivers and T-4X series transmitters. So, unlike Collins and Heathkit at the time, it was not possible to interconnect the TR-4, for instance, to an R-4 for transceive using the VFO in one of the radios. However, Drake and other brand receivers were easily connected to Drake transceivers for use as separately controlled units.

The Drake T-4X and T-4XB transmitters used the crystal filter method to generate SSB signals and operated CW by unbalancing the balanced modulator to generate a carrier. The transmitters provided for AM transmission as well with low level screen modulation. The transmitter had built-in VOX (voice operated transmit) and could utilize this circuitry to operate semi-break-in for CW. While the transmitters provided sidetone back through the receiver for CW, they were not designed to provide monitoring of transmitted AM or SSB signals.

Drake “4-Line” Accessories were used with the Drake Receivers, Transmitters. and the TR-3 and TR-4 series Transceivers . . . (Small note – the TR-3 was unique in its “3” number. It fits in more precisely as an “early TR-4” than a unique radio model.)



**AC-4 AC Power Supply  
(Mounted in MS-4)**



**MS-4 Speaker Console**



**W-4 Wattmeter**



**L-4B Linear Amplifier  
(2x 3-500z Eimac Tubes)**



**MN-2000  
Antenna Matching Network**

(Pictures above are from W9MXQ collection items.)

Other accessories were also used with the very popular Drake “4-Line” Receivers, Transmitters and Transceivers:



**L-4 Linear Amplifier**  
(Predates the L-4B)  
(2x 3-400z Eimac Tubes)



**MN-4 Antenna Matching Network**

(Pictures from other collectors preferring anonymity.)

The Drake L-4 and L-4B (along with the L7 and L75) Linear Amplifiers will be the subject of a future article. The MN-4 Antenna Matching Network (Drake’s terminology for “Antenna Tuner”) was like the MN-2000 except that it was rated for an input power of 300 watts as compared to the 2,000-watt capability of the MN-2000. Front panel design the same size and just slightly different in appearance. The MN-2000 was deeper and heavier.

The Drake T-4X series transmitters used the same 6JB6 final amplifier tube used in the TR-4 series transceivers (recall from earlier articles that the TR-3 used the similar 12JB6 final amplifier). Unlike the transceivers, the T-4X series transmitters used only two of the tubes as compared to three in the transceivers. Instead of 300 watts PEP SSB (260 watts CW) input from the transceivers, the input power of the transmitters was 200 watts PEP SSB and CW. While our less technical ham friends will point out that the T-4X transmitters can run much more input power, Drake always warned that over 200 watts was beyond the linear performance range of a pair of 6JB6 tubes. So, “let the owner beware.”

Drake also had a rather unique group of accessories to allow the “4-Line” equipment to access six and two meters using separate receiving and transmitting converters. Here for reference they are shown:



**Drake CC-1 Converter Console**  
(Holds Receiving Converters)



**Drake TC-6**  
(Transmitting Converter)



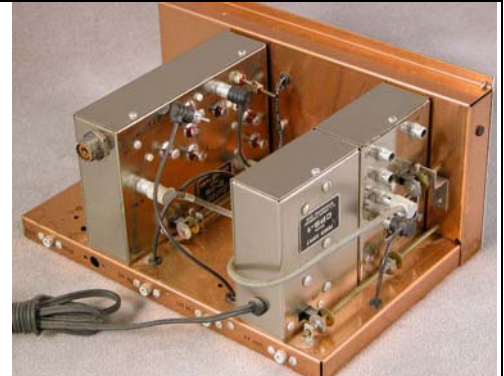
**Drake TC-2**  
(Transmitting Converter)

(Drake manufactured converters for 6 and 2 meters – but had provisions for others.)



Drake VHF Transmitting Converters (TC-6 and TC-2) used a modification of the T-4X Transmitter to produce very low HF output to drive the conversion scheme in the converter. The TC-6 used the same model 6JB6 final amplifier tubes as used in the transmitter. Input power was 180 watts. The TC-2 used a different tube – the dual tetrode 8643 for an input power also of 180 watts. In both cases these were PEP input power ratings for SSB and CW.

The above shown CC-1 Converter Console held the SC-6 and SC-2 Receiving Converters (the SC-2 is in place in the view here, at the left side of the chassis). The CPS-1 Power Supply is the rear unit to the right on the chassis picture. In front of the CPS-1 is the SCC-1 Crystal Calibrator. Note the excellent condition of the copper plated chassis in this Drake publicity photograph.



A Drake TC-6, TC-2, CC-1, CPS-1, SCC-1, SC-6, and SC-2 all graced the WA9MXQ shack (my previous call) in the days when I was using my Drake R-4B and Drake T-4XB. These devices were dedicated to SSB and CW use – with some people using them on AM as well.

Drake, Heathkit, and Collins used an inductively tuned VFO (more properly said as “PTO” for Permeably Tuned Oscillator) in both the receiver and transmitters. Like Collins, the Drake radios also lacked multi-stage variable capacitors for tuning individual stages in the radios. Again, inductive tuning was used with a rack assembly tuning all stages at once ganged to the PRESELECTOR control on the receiver and the RF TUNE control on the transmitter.

Drake R-4 series receivers continued the use of PASSBAND TUNING that was featured in their earlier 1A, 2A, and 2B (but not the 2C) Receivers. This was much more effective than the Q-Multiplier (REJECTION TUNING) used by Collins – and similarly superior to other competition that only included a NOTCH filter. (The Drake R-4 series also included a NOTCH filter in addition to their very effective PASSBAND TUNING.)

Drake enjoyed a wide customer base with these radios – all the way through the “C” series radios that are the subject of the next article in this series. Drake offered radios in line with the Collins S-Line in performance for not only less money but, in my opinion, were more advanced in technology – especially with the introduction of the “C” series radios (R-4C and T-4XC). To satisfy this demand – which included non-ham radio commercial high frequency radio operations – Drake had some unique versions of the Transmitter.

Commercial customers had little use for a radio that had separate frequency control of the Transmitter. The transmitter could be a slave to the receiver with those customers. However, Drake’s line of Transceivers at the time – the TR-4 series by then – lacked two major features necessary to commercial customers:

1. PASSBAND TUNING and NOTCH Filter features – Interference Control.
2. Ability to cover all frequencies from 1.5 to 30 MHz – General Coverage.

The Drake receiver and transmitter pair could cover the amateur and commercial frequencies used by its global customer base. At that time, Drake did not have a transceiver to do that in their product line. But, their prime competition, the Collins KWM-2A Transceiver and S-Line

separate Receivers and Transmitters could do General Coverage - and had at least some interference control on the S-Line separates. (Collins equipment covered 3.5 to 30 MHz only.)

To counter the need for a lower cost transceiver alternative for commercial customers, Drake had two transmitter models over time:



**Drake T-4 Reciter**  
**Matched the R-4 and R-4A Receiver**



**Drake T-4B Reciter**  
**(Matched the R-4B Receiver)**

“Reciter” would seem to imply – reciting what the receiver told it to say.  
That is, what frequency to be tuned in on the band.

(Pictures from Universal Radio)

To make a more compact desktop concept in this market, Drake made a single cabinet unit using these components:



To the left is the Drake TR-44 Transceiver. This was a Drake R-4 Receiver and T-4 Reciter in the same outer cabinet. (These units had a unique cabinet – not to be confused with separate cabinets fastened together.) These were simply single cabinet mounted receiver and transmitter units – also offered separately. As implied above, the TR-44 initially shipped with the R-4 Receiver but later units had the R-4A Receiver.

Drake apparently sold enough of these units into the time of the R-4B and T-4B series of separate units that they introduced a later version of the single cabinet pair as you see here:

To the right is the Drake TR-44B Transceiver. This unit was like the TR-44 but used the later R-4B Receiver and T-4B Reciter. Apparently, Drake decided with the later T-4B Reciter that additional ventilation was necessary. You can see here, and in the separate T-4B picture, above, that the panel space occupied by the VFO in the T-4X and T-4XB now had a screen mesh allowing more air flow into the transmitter. (Research so far shows that no TR-44C, using R-4C and a T-4C, ever existed.)



The receiver and transmitters in the TR-44 and TR-44B were still separate units without a common bandswitch control or early stage Preselector and RF Tune Controls.

For both the TR-44 and TR-44B the separate AC-4 Power Supply and MS-4 Speaker were necessary options for most users. The AC-4 did not fit into the open VFO area of the T-4 or the later T-4B. As with the stand-alone models, the R-4, R-4A, or R-4B used in these “transceivers” has their own internal power supplies.

The Drake R-4, R-4A, and R-4B – along with the T-4X and T-4XB were, as mentioned previously, able to receive and transmit from 1.5 to 30 MHz – extending across the HF spectrum (with some slight adjustments in the 5 MHz area to accommodate i-f frequencies). While the radios both had conventional fixed band positions for the 160-10 meters, it was possible to add optional range crystals to both for other coverages in 500 kHz portions of the HF spectrum. The receiver could hold ten 500 kHz range crystals while the transmitter could hold four. These ten and four, respectively, were in addition to the standard ham band range crystals. Unlike Collins equipment, the Drake receivers and transmitters did not require any re-alignment to cover bands other than the traditional ham bands.

I have used and later collected Drake equipment since acquiring a new Drake R-4B and T-4XB in the 1970's. It is some of my favorite ham radio equipment. I have found Drake equipment that had been poorly cared for, rusty, scratched, and dented. But, after making sure it is connected to a good power supply and making sure it is free of defective electrolytic capacitors, it will immediately power up and make contacts. It is one of the three brands of radio that I collect that spring to life with little or no effort – those being Drake, Hallicrafters, and Swan (in alphabetical order).

Using Drake receivers is a joy with their circuit design yielding very low band noise. I am reminded of Roger, K9VSK, and me, back in the 1970's when we worked together at Gates Radio Company, Quincy, Illinois. We would be comparing our respective Drake TR-4 and Swan 350c transceivers. I never failed to be impressed by the comfortable listening with the TR-4 in Roger's shack. It was not that the two competitors could not hear the same signals – it was just more comfortable with the Drake. “Good work, Roger, in showing me that comparison back in those days – I never forgot it.”

Next month we cover the Drake R-4C Receiver and T-4XC Transmitter. To quote the famous Drake Collector and Restorer, Ron Baker, WB4HFN, right from the Home Page of his Drake Equipment Website - <http://wb4hfn.com/DRAKE/DrakePageHome.htm>- you can see his message:



In many ways, Drake raised the bar to a point that DX friends of mine use the Drake R-4C Receiver and the T-4XC Transmitter to this day in active DX Contesting and chasing DX. Starting as stripped to the bone at delivery – when full option set was added, the R-4C Receivers know few equals. We will discuss what Drake learned making the earlier R-4/A/B and T-4X/B line that culminated with this remarkable pair in next month's installment.

I appreciate that you read my articles. Remember that I am open to questions and comments at my email address, [W9MXQ@TWC.com](mailto:W9MXQ@TWC.com).

Thanks to K9VSK for his pictures and comments (and his friendship), to WB4HFN for the closing picture, and to friends like W9DYQ and K9DJT who proof my articles.

## **UPCOMING EVENTS**

**Membership Meeting – August 8, 2017**

**Ozaukee Radio Club Fall Swapfest at Fireman's Park – Sept. 8<sup>th</sup>**  
**Contact Tom Ruhlmann at 262-377-6945 to volunteer to help**

**We need 4 more (2 shifts of 2) at the gate and 4 more (2 shifts of 2) more to assist with parking. Also could use a few to load etc and sell from the scholarship tables. Looks like we may also need a couple at the concession.**



# Minutes of the August 11, 2018 Membership Meeting

Ben Evans (K9UZ), Secretary



President Kevin Steers (K9VIN) called the meeting to order at 7:30 PM. All the attendees introduced themselves.

## **Announcements, Show-and-Tell, Bragging Rights:**

Pat W9JI: Brought to the meeting a 6-meter antenna, called a Moxon beam, which he built and tested successfully.

Clive K9FWF (guest): The Orlando ham radio club, to which Clive belongs, hosts a hamfest every February. Attendance is about 20,000, second only to the Dayton Hamvention, according to ARRL. Please consider coming down for it if you've had

enough of Wisconsin winter.

## **Program:**

Chuck W9KR gave a presentation on his experience with refurbishing a 1967 Collins KWM-2 transceiver.

## **50/50 Drawing:**

Jeananne N9VSV was the winner of the 50/50 drawing.

## **Auction:**

Stan WB9RQR conducted the auction. Many items were sold, including a Geiger counter, two laptop computers with Linux installed, and two transceivers.

## **Officer Reports:**

Kevin S. (K9VIN) President – The Board is working on the treasurer transition and a new budget. Updates to come.

Pat V. (W9JI), 1st VP – No report.

Robert E. (K4WTH), Facebook Page – Facebook page is still going strong. Pictures of the installation of the new repeater antenna were posted.

Tom T. (KC9ONY), Repeater VP – The new repeater antenna finally went up on June 16<sup>th</sup> with the help of the Cedarburg Fire Department. Jim K9QLP helped coordinate it. CFD agreed to do this because the ORC is a 501(c) (3) and the ORC repeater system is important for communications in the community. Because of the fire department's good gesture, the Board decided to donate \$500 to the department. Jim reported that the department was very happy to receive this donation at their meeting.

We're looking for signal reports from users of the repeater. The coverage seems to be a little better. We are received better in Newburg and West Bend, up in the west-northwest area.

Ben E. (K9UZ), Secretary – The minutes of June's meeting was sent by email to members and is also in the newsletter on the website. There were no questions or comments. Motion to accept the minutes was made by Nancy KC9FZK, seconded by Stan WB9RQR and approved by the members.

Robert E. (K4WTH), Treasurer – The profit and loss report for June was emailed by Ben to the members. The reports show both the club and the scholarship accounts, the balances in each and interest earned, and what was spent. Also shown is what was spent on Field Day and for what. If anyone has any receipts from Field Day that didn't get reimbursed, see Robert. A mo-

tion to accept the Treasurer's report was made by Gary, seconded by Stan and passed by the members.

**Committee Reports:**

Ken B. (W9GA), Awards - Ken presented the Ham of the Year Award to Gary Drasch K9DJT. This is the second time Gary has received this award.

Ken B. (W9GA), Field Day – Not all the information has been collected to do a full Field Day wrap-up, but we ended up with around 2,600 QSOs, which is down a bit from the average of earlier years. Participation and attendance were good, and five stations were run (two CW, two phone and one phone & digital). Think about participating at next year's Field Day. The tent wasn't ready in time, but K&D lent us a canopy that worked out fine. After the details are gathered, Ken intends to present them at next month's meeting and put an article in the newsletter.

**Old Business:**

There was no old business.

**New Business:**

Stan WB9RQR: The programs at upcoming meetings will be as follows:

- August - Gary W9XT, "Fundamentals of HF Propagation and Characteristics of the HF Bands"
- September – Bernard Barr K9JAT, "Grounding and Resonances"
- October – OPEN
- November – Vic WT9Q, the FLEX-6600 Software-Defined Radio
- December – OPEN

Note that October and December are open to anyone who has a topic to present.

Tom KC9ONY: Mark your calendars for the International Lighthouse Lightship Weekend August 17-19. Come and operate HF and make contact with other lighthouses. People are needed for setup and tear-down.

**Adjournment:**

The meeting was adjourned at 9:10 PM.

**Attendance:**

There were 37 members and five 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

## ORC Meeting Agenda

*August 8, 2018*

1. 7:00 – 7:30 PM – Network & Rag Chew
2. Call to Order & Introductions
3. Announcements, Bragging Rights, Show & Tell, Upcoming Events, etc.
4. Program: Gary Sutcliffe W9XT, “Fundamentals of HF Band Propagation”
5. Fellowship Break
6. 50/50 Drawing
7. Auction – Stan Kaplan (WB9RQR)
8. President’s Report – Kevin Steers (K9VIN)
9. 1<sup>st</sup> VP Report – Pat Volkmann (W9JR)
10. Repeater VP Report – Tom Trethewey (KC9ONY)
11. Secretary’s Report – Ben Evans (K9UZ)
12. Treasurer’s Report – Robert Eskola (K4WTH)
13. Committee Reports:
  - A. Fall Swapfest
  - B. Field Day Wrap-Up
  - C. Other
14. OLD BUSINESS
15. NEW BUSINESS
16. Adjournment to ?

Return undeliverable copies to:

### **The ORC Newsletter**

465 Beechwood Drive  
Cedarburg WI 53012

### **First Class**

Next ORC Meeting:

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

**1665 7<sup>th</sup> Avenue, Grafton**  
Wednesday, August 8<sup>th</sup>, 2018

7:00 PM – Doors Open

7:30 PM – Meeting Begins