



# 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 XXX

June, 2018

Number 6

## From the President

*de Kevin Steers (K9VIN)*



**Happy June everyone!** Well, with 50-degree weather, I think it has a bit to go, for sure!

Dayton, once again, was a scream! I motored down on Thursday, enjoying listening to the 2M Simplex frequency of 146.52. I made a handful of QSOs both on the way down and on the way home, with fellow Hamvention travelers. It was funny listening to a person from Illinois telling his life story, only to bump into him, on down the road, and telling him that I had heard most of it back around Racine! His callsign ended in EAA, which was memorable, and then I found out that Gary

Drasch and Bill Schnell had stopped for lunch with a group of Illinois hams, including EAA. How funny.

Once again, I rendezvoused with the Cherrylanders, old friends from Traverse City, MI. We stayed in Springfield and enjoyed evenings of camaraderie, Hockey matches at Roosers restaurant, and even tuned in to the Royal wedding from the Hotel Lobby. We also entertained ourselves with aquavit linea, smoked salmon, stinky cheese, and Kim Chee. Needless to say, the hotel lobby needed a good breeze to clear the air!

The Hamvention venue was great, with only brief, light rain showers most of the weekend. The food selection was reminiscent of a county faire, which I found exciting. I look forward to this event each year, and next year, I hope to focus on the Forum's, as I kind of forgot to look at the schedule. There are forums for Ham's of all levels, so there is something for everyone; well, maybe not for my wife 😊

If you recall from my last update, I had picked up an antenna coil to get me HF mobile, at our Swap Fest. I actually did use it for a QSO on 20M with Gary Drasch enrooted, but propagation was terrible. Before going to Dayton, I suspected that might be a Wolf River Coil, so I did some research. My coil seemed a bit smaller in diameter and not quite as many turns of stainless wire as their current model. But it did have a lot of tell-tale signs that it was an earlier version.

At Dayton, I searched out Wolf River Coils to ask a few questions - confirm, and then to pick up two more 'taps' for easier band changes. Gary from WWC was a great listener, and when I described the coil details, he smiled and exclaimed that I had one of his very early prototypes. Without skipping a beat, he said bring it to me, and I will swap it out with a current version. Customer Service like I would never have expected! On another plus side, as my posse assisted with removing, remounting, handling and discussing the antenna, one of them decided to use the antenna as a HOA

alternative antenna. So, in the end, Wolf River Coils came out ahead based on the package my friend decided upon.

Next month I will regale you with my time spent on the Hamvention grounds, and the few purchases that I made.

Next project is to get /MM up at the cottage. Maritime Mobile might be amusing on my pontoon, so I figure mounting a 2M antenna is easy enough, but I also picked up another Mobile antenna coil at our swapfest to get on 10-40M. Might be fun for contesting to set me apart, as well as for fishing.

Please plan to attend Field Day. As of this moment, we need a 20M band captain to lead the charge on that band. Please reserve June 23-24 on your calendar. It is a great way to learn how to run network cables, how to pitch tents, how to erect temporary towers, and how to work hundreds of stations in a low stress environment. You can even sit back and listen if you wish to learn how we manage a pileup, etc.

## **Saturday Breakfast at 7 AM at Jim's Grille**



**Every Saturday morning, an ORC group meets at Jim's Grille in Cedarburg to have breakfast and solve HAM radio and world problems.**

**The group is awaiting your opinions at 7 AM at Jim's Grille.**

# DX'ing & Contesting

*De Gary Sutcliffe (W9XT)*



June is also the start of the sporadic E (Es) season. The E layer of the ionosphere sometimes gets intense levels of ionization. The ionization is thought to be caused by wind shear. It appears to also be linked to storm fronts. Es is most common in June and July.

There is another minor peak in December and January. The big event of June is Field Day, the weekend of June 23-24. This is one of the ORC's biggest events. Final details for Field Day will be the program at the June meeting.

Sporadic E can affect propagation on the bands from 20 meters on up to occasionally 2 meters. VHF operators look forward to this time of the year. Es can provide communications with strong signals out to about 1200 miles. Sometimes there will be multiple zones of ionization and multi-hop opening occur. Most often they will be towards Central and South America. Usually, we will have a few to Europe and Africa.

The advent of FT8 should make this year's Es especially interesting. FT8 allows digging out signals over 20 dB below what could be copied with CW or SSB. I first got on FT8 back in early August of last year. A primary reason for me was to use it on 6 meters for working DX. Although it was way past the regular season, I worked US stations just about every night for several weeks. During this time there were few openings strong enough to support CW or SSB contacts. I did make a few QSOs into the Caribbean and Mexico.

I'm hoping FT8 will make multi-hop DX contacts much more common on 6 meters this season. It looks like it has already started. There was an opening to Japan on 6 meters late one afternoon in late May. At least one station from Wisconsin made multiple FT8 contacts into Japan. There were other reports from northern IL making contacts during this opening. Another 6M enthusiast I know worked the Canary Islands. You just need to be there. The openings often are brief.

Es also affect the upper HF bands. It is not noticed as Es too much on 20 and 15 meters because there are other propagation modes. It can be critical in Field Day. About every 3-4 years we have good Es opening. To win Field Day from this part of the country requires a good 20 meter ES opening to last into the night. It can also provide a lot of QSOs on 15, 10 and 6M. Without an Es opening the VHF station will only contact local stations. With a good opening, several hundred contacts are possible.

Most of the ORC Field Day HF stations have secondary band assignments for 10 and 15. It is important to periodically check these bands. If they open up, the stations must go there. It can make a difference of hundreds of QSOs to the Field Day effort. Last year some of the stations didn't go the alternate bands soon enough and it cost us. Since the stations are networked, it is easy to see if another station is making contacts on these bands. Also, keep an eye on the 6M station. If they are making contacts, chances are 10, and 15 are hopping.

The ARRL June VHF contest can get very interesting if there is a 6 meter Es opening. This event starts at 1800 UTC (1:00 PM local) on Saturday, June 9 and runs until 02:59 UTC Monday, June 11 (10:00 PM Sunday night, local time). You send your grid square as the exchange. The VHF/UHF bands from 6 meters and up can be used. All modes are allowed, but you can only work a station once per band regardless of mode. There are a number of entry classes. If you are planning on operating, check out the rules at <http://www.arrl.org/june-vhf>.

June is not usually a big month for DXpeditions. A couple of dozen vacation style operations are scheduled for June. None are very rare, and you just have to get lucky and be on when they show up.

The single big one is to Baker Island out in the Pacific. It is scheduled to be on from June 27 through July 7. The island has historical significance as it is part of the Baker and Howland island group. This is the area where Amelia Earhart is thought to have disappeared on July 2, 1937. The Baker & Howland group is a US possession. Like many small island groups owned by the United States, it is a wildlife reserve. The various government departments that manage these places have been very restrictive on letting hams, or anyone for that matter, to visit these islands. For that reason, Baker Island is #5 on the all-time needed list by DXers.

Some rare countries rank high because of political restrictions. North Korea is #1 on the list because ham radio is not allowed there. Other places are rare because going there is difficult and expensive. The aborted Bouvet Island DXpedition earlier this year is an example. Because of policies of the various departments in the government, four of the top twenty needed countries are US territories.

The administrative agencies have been getting a little more open about letting hams visit these places. They are now allowing groups to go every 5-10 years. Sometimes they have to pay for wildlife experts from the agency to come along. Often these agencies don't have the budget for making their own visits. The hams have to follow very strict rules to minimize disruption to the area, which is of course reasonable. June and July is about the worst time for a DXpedition to highly needed location. Their landing permission is only valid during this period because it would cause the least disruption to the birds.

The call sign is KH1/KH7Z. They will be on 160-6 meters. SSB and CW plus some digital. There are some bands that this island has never been worked with a digital mode. If you need this one, you better get them now. It could be another ten years or more before it shows up again.

That wraps up June. See you at Field Day!

## THE COMPUTER CORNER

### *No. 244: What Version of Windows Are You Running?*

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



The version of Windows you are using is always a question, unless you look it up or have arranged it to be part of your desktop display. The version is especially critical now that the latest Windows 10 Upgrade has arrived. If you have more than one computer, having the version on screen can confirm that you are up to date, anytime the desktop is visible. Here is how to do it. But, use care! You will be messing with the Registry, and if you make an intentional or unintentional error, it can screw up your computer royally. You only need to change a zero to a one, but make sure you make that change in the correct place. Here are the steps.

Right-click the Windows icon in the leftmost position on your tray. A list of stuff will come up. Right-click RUN. A Run box will come up. In the Open: box, type the word regedit (the case of the letters does not matter) and click the OK box. Select Yes if a User Account Control box comes up asking you if you want to allow this app to make changes to your device (computer).

1. OK, you are in the Registry Editor. You can see that your computer has 5 groups of entries, all beginning with HKEY. The one you are interested in is the second one in the list, HKEY\_CURRENT\_USER. Left-click the right arrow symbol (>) next to it. That will expand the sub-categories to about a dozen. The one you are interested in is Control Panel.
2. Left-click the > symbol next to Control Panel. That will expand the sub-categories to about 15. This time you are interested in Desktop.
3. DON'T click the > symbol this time. Rather click the word Desktop or the little folder symbol next to it. This will expand the listings on the right (Name/Type/Data) to over 40.
4. Scroll down the listings to PaintDesktopVersion, right click PaintDesktopVersion and select Modify (the first entry in the drop-down list).
5. In the box that comes up ("Edit DWORD (32-bit) Value"), the Value Data box has a zero in it. Change that zero to a one (change 0 to 1). This is the ONLY data change you will have made during this entire process.
6. Now, click OK and exit the Registry Editor. Reboot.
7. If all went well, the version should be showing in the lower right corner of your screen. This is what shows on mine:

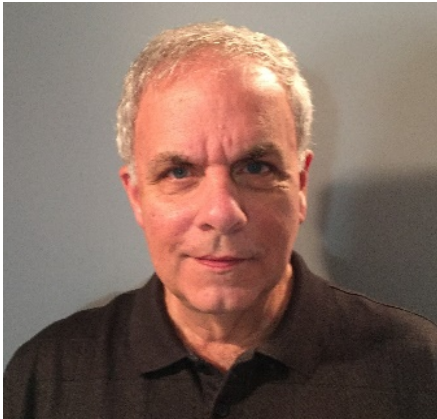
Windows 10 Home  
Build 17134.rs4\_release.180410-1804

While you are perusing the Registry in the steps above, there is no danger. The only change is in step 6 above, when you change a zero to a one. If you exit the Registry Editor before step 6, no changes will be kept. So, be sure to follow the instructions exactly, especially step 6 and 7. If you are "twitchy" (very unsure of yourself), find out how to back up your Registry before you take the steps outlined above, so that you can restore the original version. Or, perhaps you can convince me to make the changes for you, while you watch, in my computer workshop.

There you have it. Information you need on occasion, now always on hand, but not in the way. Happy Computing!

# Vintage Amateur Radio

de Bill Shadid, W9MXQ



As the market for ham radio equipment was changing, Drake Radio Company made a major leap into the fray with the 1963 introduction of the all vacuum tube TR-3 HF Transceiver. This radio continued the theme introduced by Collins Radio Company with the KWM-2 and KWM-2A Transceivers. The TR-3 was soon replaced with the visually similar Drake TR-4.

The TR-3, and the similar TR-4 designs, lived into the late 1970's. For a time, the last TR-4C version was made in parallel with the much-touted Drake TR7 all solid-state transceiver. Before the Drake TR7's introduction, the design competed head to head with American and Japanese solid-state and hybrid radios. We should not underestimate the success of this line of transceivers – the first

TR-3 to the last TR-4C.

This Drake TR-3 article is the first of a two-part series on the Drake Vacuum Tube Transceivers. This article shows the TR-3 while the next one shows the TR-4 and TR-6.



**Drake TR-380-10 Meter SSB/AM/CW Transceiver in 1963**

**(Picture from Universal Radio)**

Drake took the same approach as Hallicrafters in meeting the demand created by Collins with the introduction of their S-Line series. Like Hallicrafters, Drake introduced a transceiver first and then later introduced a separate receiver and transmitter in the same line. Subject of a later article, Drake introduced the separate R-4 Receiver and T-4X Transmitter in 1965. Like the Collins KWM-2, but unlike the competing Hallicrafters SR-150, Drake did not include Receiver Incremental Tuning (RIT) in the TR-3 Transceiver.

Drake, like everyone other than Collins, made the TR-3 an acceptable transceiver on CW with proper and automatic offset for hearing the other station. The lack of RIT, however, offset that advantage in a time when drifting VFO's could play havoc in a longer QSO – both parties would move across the band while adjusting for the other's drift.

In a league of its own, Drake, unlike Collins and Hallicrafters provided real AM mode receive in the TR-3 with a diode detector. But they only went so far – as with all crystal filter SSB generation transceivers, there is only one sideband present on AM. In those days, “real AM guys” would watch for that and call you out on it – those were the big days of the AM vs SSB battles!

Drake did offer an alternative to RIT by offering a full external VFO, the model RV-3, for use with the TR-3 Transceiver. With the RV-3 one could separate receiver and transmitter frequency – perhaps leaving the transmit frequency static while adjusting the receiver.



**Drake RV-3 External VFO**



**Drake RV-3 showing the AC-3 Power Supply mounted in the rear**

**(Pictures from Universal Radio)**

Did you notice (left picture, above) the speaker grill in the RV-3? That was the way Drake managed to compress the table top requirements of the TR-3 station. This is like the feature set in the Collins 312B-5 External VFO for the KWM-2. (Collins' appearance was a bit more elegant.) To the right you see a rear view of the RV-3 showing the matching AC-3 AC Power Supply for the transceiver. Note the three cables coming from the rear of the RV-3/AC-3 Assembly – left to right they are AC Power Cord, Control/Supply Cables to plug into the TR-3 Power and External VFO connectors, and the cable from the speaker going to the TR-3. The bias set potentiometer is between the AC Power Cord and Control/Supply Cable and sets standby bias for the 12JB6 finals – part of the setup procedure for the initial installation.

Note: Standby Bias should be checked frequently on tube transmitters. In my opinion, it is more important to be a little more frequent with checks when using sweep tube finals.

Drake also offered a Speaker Console alone, the model MS-3. This was for users that needed a speaker and a housing for the AC-3 Power Supply but did not want the RV-3 External VFO. The rear view of the RV-3 and AC-3 shown above would be identical to a rear view of the MS-3 and the AC-3. In fact, the MS-3 and the RV-3 used the same Drake outer cabinet. Pictures of the MS-3 are rare and I could not find one I could legally use. The MS-4 Speaker is shown in next month's article about the TR-4 and is accessories. The MS-3 was identical except that no front panel nameplate appeared on the MS-3 Speaker.

Drake offered a variety of microphones for the TR-3 – both hand microphones and desk microphones. The ones I have seen – and I may not have seen them all – were private label units from Electro-Voice and Astatic. Personally, my favorite and best sounding microphone, with my voice, on the TR-3 or TR-4 series radios is the Astatic D-104 – the model without the amplifier in the base. I also have successfully used the Shure 444 (the high impedance model or the 444D with the setting

at High Impedance). But, alas, my Shure 444 contains a Heil retrofit microphone element, so it is not authentic – yet it garners audio compliments.

Drake also offered a DC-3 DC Power Supply for running the TR-3 in an automobile, boat, airplane, or anywhere 12 Volts DC was the available power source. Below is a picture of the DC-3 Power Supply.



The Drake DC-3 Power Supply was a neat, compact package with a switching circuit, like most all DC supplies of the day, to allow a high frequency oscillator and transformer to convert 12 volts to the various voltages needed by the TR-3 Transceiver. It was designed to mount on the bulkhead of the vehicle.

**(Picture from Universal Radio)**

The front panel size of the TR-3 was shared with all similar Drake equipment of the era. It was 5-1/2" high x 10-3/4" wide – quite compact for the day. The depth of the TR-3 was substantial at 14-1/2" – deeper than all of its accessories. The TR-3 was virtually all vacuum tube circuitry with little use of solid state devices except in the AC-3 and DC-3 Power Supplies. For the day, the TR-3 was quite stable and later solid-state versions of the Drake PTO were not substantially better than the excellent design that Drake provided in 1963. Like in the vacuum tube PTO provided by Collins in the S-Line, the well-designed Drake product was exemplary for the time. (To be sure, I would not want to attempt FT8 QSOs' today with a Drake TR-3!)

Unlike Collins, Drake did not choose the tried and proven 6146 tetrodes in the TR-3. Instead they went for three 12JB6 Sweep Tubes. Each of these tubes is capable of 100 watts input power – for an input on SSB of 300 watts PEP. CW operation was a bit less at 260 watts input, key down. Output power was about 50% to 60% of those numbers. The trio of tubes is capable of more - but not without unacceptable distortion and a significant shortening of their life.

As I will cover in a later article on the TR-4 series of transceivers, Drake did not keep this tube model. Instead they moved to the more common 6.3-volt version of the tube, the 6JB6. Drake was a firm partner with Sylvania in those days – and nirvana in a vintage Drake transmitter circuit are Sylvania 12JB6 or 6JB6 tubes.

In the day of the TR-3, Drake did not manufacture a linear amplifier. Provisions for working with an amplifier, however, were included. And, it must have been known at the time that the Drake L-4 Linear Amplifier (not to be confused with the later L-4B) was close behind. The grid driven, untuned input of the amplifiers of the day (for the most part) could accommodate the high output of the TR-3. More advanced, tuned input amplifiers would perhaps require a 3dB pad between the transmitter and the amplifier or careful adjustment of the output of the transceiver by loading the transceiver a bit light. One suggestion I recently heard on the Drake Net (7.238 MHz on Sunday afternoons) was to offset the Driver Tune a bit. That is an interesting thought given that such action also offsets the receiver's front-end tuning and the receiver sensitivity rapidly drops off. Perhaps noted by a non-user of the radio. But as with all such advice, I generally "take it under advisement."

Drake had a procedure for using a second receiver with the TR-3, instead of a separate VFO, like the RV-3 mentioned above. But, you could not transceive with this arrangement. With this procedure, one could connect and even control the muting of a separate receiver. The manual shows such an arrangement working with their premier receiver of the day, the Drake 2B HF Receiver. One flaw in the arrangement, corrected on the later TR-4 Transceiver, was the requirement to use an external switch and a relay to engage the remote receiver and to switch the antenna from the transceiver to the receiver. A complicated arrangement to be sure but back in the days of a brand-new



TR-3, ham operators were more tech-savvy and willing to make such adjustments to gain features. And, manufacturers were more willing to encourage modifications of their equipment. In this case, it was a “procedure,” not a “feature.”

Note: Drake used a different conversion scheme in the TR-3 and TR-4 Transceivers from what was used in the 2-Series Receivers and the 4-Series Receivers and Transmitters. There was no convenient way for frequency control of the TR-3 or TR-4 Transceivers to work with any Drake Receiver.

In the 1950's and 1960's – certainly in the time of the Drake TR-3 – it was all the rage to copper plate a radio's chassis. “Better conductivity,” “easier to solder directly to the chassis,” and “looks very nice” were all reasons for this trend. Now, move forward over 50-years and most of these chassis have turned black and/or some sort of iridescent black, brown, and green that is, well, just plain ugly. It does not impact operation, but it sure does look bad – no, not bad, “terrible” is the word!! Flawless ones are around – a Drake copper chassis receiver and transmitter set I bought new in about 1970 is still perfect and resides with the person I sold it to many years ago. I aligned it for him a few weeks ago and marvel at its appearance.

Drake radios starting with models that included a “C” in their model number stopped this process. Those chassis used the same steel construction but were cadmium plated and chromate dipped. They look nice unless subjected to enough moisture to allow them to rust. I will add that this “C” in the model number identifier was true but other models also had stopped using copper plating by that time. I no longer have any copper plated chassis Drake products in my radio collection.

Drake had a rather odd crystal i-f filter mechanical design in the TR-3. Their design used a separate filter for USB and LSB. So, there were two filters – and those filters existed in the circuits through the entire “3” and “4” product line. For the TR-3 however, both filters were encapsulated inside a can that looked like a miniature soup or tuna can – hence the nick name of “soup can” filters. These filters, as the years would prove, were problematic. They are now what we collectors like to call, “unobtainium,” or “no longer available.” The filters were used in early TR-4 Transceivers as well. If found in a radio today, they either work– in which case they are likely to keep working – or they are not working and no replacement (other than one sacrificed from a parts unit) will restore the radio to operation. Also, the TR-3 and early TR-4 radios with the “soup can” filters are working with a 4-pole design. The older units have less selectivity than the later, separate units with 8-pole filters. Filters to replace the late TR-4 separate filters are available from INRAD (<http://www.inrad.net>). However, there are a lot of interface issues that makes this solution less satisfactory for retrofit to a TR-3 or early TR-4.

I should add to the crystal filter story that Drake's very first crystal filter in a transmitting model was the TR-3 Transceiver. Drake stayed with inductive tuned circuit i-f filtering in its receivers (but not its transmitters) until the Drake R-4C Receiver was introduced along with its quantum leap in selectivity with very well-designed crystal filters. That is a story for a future article.

There is also an oddity in the Drake TR-3 (and all TR-4) transceivers that is the result of the conversion scheme. Check the PTO dial in the TR-3 picture at the start of this article. Note that on 80, 40, 15 and 10 meters the frequency goes up as the dial progresses to the right. But on 20 meters it progresses downward for the same dial direction.

Notice in that same picture, the UPPER and LOWER (sideband) lamps on the front panel. Instead of Upper or Lower Sideband being verified by position of the bandswitch or the mode switch (not labeled as such), it is verified instead by those lamps – since it changes in relation to the conversion scheme. You will note that to switch to the opposite sideband you use the SIDEBAND switch. On AM and CW modes, the SIDEBAND switch must be in the “X” position. Again, this covers some “smoke and mirrors” trickery to deal with the radio's conversion scheme – which could be the topic of another article! In another time, Drake would have added a wafer or two on the bandswitch to get

around the rather confusing front panel layout. In operation with the TR-3, or TR-4, the issue fades away after a few seconds of operation.

For conservation of panel space and the desire to eliminate the need for a meter switch, Drake equipped the TR-3 with two horizontal meters. The top meter reads plate current on Transmit and the bottom meter is an S-Meter on Receive. The S-Meter (bottom meter) monitors transmitter AGC in the transmit mode (we now call that ALC).

Drake made a Noise Blanker for the TR-3 that I have never seen and have rarely seen mentioned. I will rely on a bit of what may be tales here when I mention the 34-NB Noise Blanker that may, or may not, have been made for the TR-3 and early TR-4 Transceivers. The later TR-4's onward did use the 34-PNB Noise Blanker – one of which is in my own TR-4C. A TR-4 owned by my friend, W9JI, may actually have the mysterious and rare, 34-NB, retrofit into the TR-4 chassis. Especially at the time of the TR-3 and TR-4 in mobile service, a Noise Blanker would have been a nice accessory to have.

Today, given the choice, I would choose as somewhat more advanced Drake TR-4 Transceiver. In fact, I do have and use a TR-4C. But, to the point, the TR-3 is a pleasure to use with a very respectable barefoot signal of 150 watts output. I once had a TR-3 Transceiver with the RV-3 External VFO and the AC-3 Power Supply – but it is long ago gone in a trade. One of my fellow club members, in one of the clubs to which I belong, has a very nice example of a TR-3 that works – and that he loves after bringing it back to life. So, I guess it is better said that there are no bad radios – just radios with a different story to tell.

If you are interested in a Drake vacuum tube transceiver – look for a TR-3 or any of the various TR-4's. If a TR-3, make sure it is working. Look forward to QSO's that follow QSO's with each new contact wanting to hear the story of your vintage Drake radio. Drake radios carry bragging rights!! AND, they are all made in the good old USA. The filter in the TR-3 notwithstanding, most Drake radios work and get on the air once you know the power supply is safe. Old Mr. Drake knew how to make long lasting radios!

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

Thanks to Universal Radio for the use of their pictures, to KB9PRF for letting me mention his TR-3, to W9JI for letting me look over his TR-4 and make comparisons to my TR-4C, and, most important, to W9DYQ and K9DJT for keeping me honest by proofing every article.

# FIELD DAY MEMORIES

De Bob Truscott (W9LO)

*The following is a full reprint of an article by Bob Truscott (SK – W9LO) that appeared in the June 2004 ORC newsletter. -Ben Evans, K9UZ*



Sometimes it can be fun, or at least interesting, to look back at past Field Days and think about some of the things that happened. Most of the memories are fond, amusing, or downright funny. They can also be tragic.

I remember the phone (AM in those days) operator at Omaha in 1952 who called CQ FD about 3 times as fast as a TV sportscaster gives baseball scores. You had to be there to appreciate it—I had good ears in those days, but I could figure out what he was saying only by the rhythm in his voice. I guess he thought that if the CW guys sent as fast as they could that he should talk as fast as he could. I don't believe he worked anybody.

Later that night we had the heaviest FD thunderstorm I can ever remember. We disconnected the feed lines from the rigs and dropped them to the ground, and were drawing 2-3" sparks off the ends of them. Lucky----we could have burned up a few receivers that night.

I remember FD at the gravel pit (somewhere in Ozaukee County) in about 1958 or 59. It was the group that later became OZRAD. We had a tower set up close to the tent, with the coax from the beam entering the tent directly behind the operating table. About 9 PM or so, we ran out of liquid refreshment so W9BCK [Ron Yokes] volunteered to go into town to renew the supply. It was raining and the visibility was poor, so he didn't see the guy anchor as he turned his car around. He back into it, causing it to come out of the ground, and the tower to fall. Charlie [Balkwill], K9MAU, was tuning the transmitter at that time, and when the tower fell, the coax pulled the rig right off the table and out of the tent. What a surprise for Charlie.

I remember the year that the 75-meter phone guys, who shall remain nameless, used a balloon to support a vertical antenna. The year was about 1965 (give or take perhaps 5 years), and the place was [Ed Bach] WA9BMA's property on the lakeshore somewhere north of Port Washington. The wind came up, the wire broke, and the balloon went sailing inland, trailing the 200' piece of bare copper wire beneath it. A short time later there was a large area power failure—didn't bother us because we were using generator power, but the electric company and the natives of the area got pretty excited about it. It was rumored that our balloon laid the wire on the cross-country transmission lines, but of course this couldn't happen, could it? (But even if it did, it's not our fault those lines were not insulated.)

I remember the year that W9RXJ [Hal Geise] drove his car over one of the coax feed lines, and wrapped about 20' of it around his axle. (How did he do that?) I don't remember if he pulled the tower down or not.

I remember the year of the baked salt shaker. Ann Berg brought the potatoes, all previously wrapped in foil. We loaded the potatoes in the grill, cooked them, and then added the steaks, brats, or whatever they were. It had the makings of a real feast. When Ann unwrapped her baked potato it turned out to be a salt shaker. It seems that I had wrapped the salt shaker in foil

to keep the salt from spilling out while in transit, and it got mixed in with the potatoes. Have you ever used brown salt? It tasted OK to me.

And finally, I remember the year W9WQ [Joe Bauer] died in the tent. I believe it was 1989, but I'm not sure. We finished the set-up and testing about noon on Saturday, much later than we expected to, so there wasn't time to go out to lunch as we usually did in those days. I shared my brats & chips with Joe while we talked over our contest strategy for the next 24 hours. He said he was feeling pretty good, and hadn't had any chest pains all day. Prior to that none of us knew he had a heart problem. Joe took the first operating shift, and I relieved him at 2:00 PM. He said he was a little tired, and was going to take a rest. He laid down on the cot and went to sleep, while I took over the operating position. He never woke up.

These are some of my Field Day memories. We take the bad with the good. I hope to see you all at Lazy Days on June 28-30 (2004) to build a few more memories, hopefully all fond.

Bob, W9LO

## Storm Spotter Net

De Don Zank, AA9WP, OZARES EC



It is that time of year again when severe convective weather, including wind damage, hail, water spouts and tornadoes begin appearing in southeastern Wisconsin. The local National Weather Office in Milwaukee depends on ground reports from the public during severe weather. As the radar cannot see what is going on at ground level these reports are vital to the forecasting office.

The National Weather Office Milwaukee has responsibility for the following counties:

Columbia	Dane	Dodge	Fond du Lac	Green
Green Lake	Iowa	Jefferson	Kenosha	Lafayette
Marquette	Milwaukee	Ozaukee	Racine	Rock
Sauk	Sheboygan	Walworth	Washington	Waukesha

...and the adjacent coastal waters of Lake Michigan from Winthrop Harbor, IL to Sheboygan, WI.

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. <http://www.sulcom.info> SULCOM has divided the region into three distinct areas. Ozaukee County is in the East Region, MKX-E.

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 twenty county warning area (CWA).

During a severe weather net, the members will check into the 147.330 repeater to provide local weather conditions. Normally we will have one net control operator and one other member will relay the reports to SULCOM. **Guests are more than welcomed to join us.**

Following certain procedures and protocols helps insure accurate and timely reports. The criteria for a severe weather report are available on the [sulcom.info](http://sulcom.info) website.

The protocol for reporting is the 4 W's. Who, What, When and Where.

**Who** is providing the report.

**What** is occurring (using the severe weather criteria).

**When**, the time of the event: since the weather is moving fast, the NWS office is looking for reports not older than 2 minutes.

**Where**, latitude/longitude, a street address, city, or direction from local town center. And include the County.

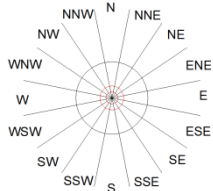
Ozaukee Town Centers have been defined as below: If your home/work location is 0.4 miles Northwest of the Belgium city center reference point, indicate "0.4 miles Northwest of Belgium, Ozaukee Co."

Town	Town Center	Latitude/Longitude
Belgium	Intersection of CTY D & Beech St.	43.5006 -87.8503
Cedarburg	Intersection of Columbia Rd. & Washington Ave.	43.2966 -87.9882
Fredonia	Intersection of S Milwaukee St. & Park Ave.	43.4685 -87.9517
Grafton	Intersection of 11th Ave. & Bridge St.	43.3186 -87.9546
Harrington Beach State Park	End of CTY D @ Lake Michigan	43.4928 -87.7952
Mequon	Intersection of Main St. & Green Bay Rd.	43.2304 -87.9840
Port Washington	Intersection of STH 32 & Main St.	43.3882 -87.8699
Saukville	Intersection of STH 33 & Park St.	43.3838 -87.9414
Thiensville	Intersection of Vernon Ave. & Grand Ave.	43.2368 -87.9799
Waubeka	Intersection of Cigrand Dr. and Memorial Dr.	43.4750 -87.9902

So when some severe weather is approaching, tune over to 147.330 to see if a net is active and please join us.

Who \_\_\_\_\_

What (circle ONE below and complete other details as indicated)

<p>1. Tornado or Waterspout <i>circle one</i></p> <p>2. Funnel Cloud Looking</p> <p>3. Rotating Wall Cloud</p>	
<p>4. Severe Damage <i>Check all that apply. If the event detail is not listed, then add detail in the Notes Section, below</i></p> <p style="padding-left: 40px;">tree branches greater than 3" dia. snapped, trees uprooted _____ downed power lines</p> <p style="padding-left: 40px;">any structural damage to buildings (includes roof damage) _____ crop damage</p> <p style="padding-left: 40px;">bent, snapped or collapsed light poles or traffic lights _____ sink holes</p> <p style="padding-left: 40px;">cave-ins and mud slides _____</p>	
<p>5. Severe Winds – 58 mph or greater: Speed _____ circle if <i>measured</i> or <i>esti- mated</i></p>	
<p>6. Severe Hail - 1 inch or greater: Size _____ circle if <i>measured</i> or <i>esti- mated</i></p>	
<p>7. Severe Flooding <i>Check all that apply. If the event detail is not listed, then add detail in the Notes Section, below</i></p> <p style="padding-left: 40px;">water over river banks or dams _____ roads, bridges or railroads washed out</p> <p style="padding-left: 40px;">impassable or closed roads _____ water out of banks that causes property damage</p>	
<p>8. Minor Hail – 3/4 inch to 7/8 inch: Size _____ circle if <i>measured</i> or <i>esti- mated</i></p>	
<p>9. Minor Damage <i>Check all that apply. If the event detail is not listed, then add detail in the Notes Section, below</i></p> <p style="padding-left: 40px;">any cosmetic damage to buildings &amp; vehicles _____</p> <p style="padding-left: 40px;">tree branches less than 3" dia. snapped causing power line damage or cosmetic damage to buildings &amp; vehicles _____</p>	
<p>10. Minor Flooding <i>Check all that apply. If the event detail is not listed, then add detail in the Notes Section, below</i></p> <p style="padding-left: 40px;">non-life-threatening / non-damaging water over curb _____</p> <p style="padding-left: 40px;">water out of banks but confined to low lands and bottom lands (<i>not impacting buildings</i>) _____</p> <p style="padding-left: 40px;">water on the roads _____</p>	

11. Visibility - less than 1/2 mile: Distance \_\_\_\_\_ due to precip \_\_\_ fog \_\_\_ blowing dirt \_\_\_ smoke \_\_\_\_\_

12. Rainfall - equal to or exceeding 1" per hour measured over at least 15 minutes

(i. e., at a rate greater than 1/4 inch in 15 minutes)

Measurement \_\_\_\_\_ in (between) \_\_\_\_\_ minutes (start/end time)

13. Minor Winds 40-57 MPH: Speed \_\_\_\_\_ circle if *measured* or *estimated*

When \_\_\_\_\_

Where Address  
Distance/Direction  
Lat/Long

Reference/  
City/  
Intersection

County

**Notes**

# Ozaukee Radio Club

## May 9, 2018 Meeting Minutes

Ben Evans (K9UZ), Secretary



President Kevin Steers (K9VIN) called the meeting to order at 7:32 PM. All the attendees introduced themselves.

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

Tom W9IPR: Bought an FT-2000 in Florida, to replace the FT-1000 that's been used for Field Day.

Nels WA9JOB: Visited Bruce W8RA while in Florida. Saw Bruce's 32-acre home that has five or six tall towers loaded with antennas. If you hear Bruce on the radio when he comes to Wisconsin, say hi.

Gary W9XT: Put together a transmitter to work WSPR on the 630-meter band to be the first club member to transmit on the new band.

Tom KC9ONY: There will be a Simulated Training Exercise in mid-May, called Dark Sky, which will simulate a massive power outage lasting three days. The exercise will take place in seven counties in Wisconsin.

Kevin K9VIN: Picked up mobile coils at the Spring Swapfest for 20 and 40 meters and hopes to use them on the trip to Dayton.

### **Officer Reports:**

Kevin S. (K9VIN) President – The Spring Swapfest was very successful. Attendance was up by about 30 people compared to last year and the tables were sold out. The Field Day tent was sent out to be shortened. Propose “passing the hat” to throw money into at the next meeting to defray the cost. Dayton Hamfest is next weekend.

Pat V. (W9JI), 1st VP – No report.

Robert E. (K4WTH), 2<sup>nd</sup> VP – No report.

Tom T. (KC9ONY), Repeater VP – The new repeater antenna is ready to be installed. Still working with the tower climbers on the logistics, scheduling around Dayton, watching the weather, etc.

Ben E. (K9UZ), Secretary – The minutes of April's meeting was sent by email to members. The link to this month's newsletter was sent in a separate email. There were no questions or comments. Motion to accept the minutes was made by Tom W9IPR, seconded by Chuck W9KR and approved by the members.

Treasurer's Report – Dave N9UNR was not at the meeting, so Robert K4WTH gave the report. He passed out copies of the Balance Sheet and Income & Expenses reports for April. There were no comments. A motion to accept the report was made by Robert, seconded by Stan WB9RQR and passed. Swapfest Income Report – Thanks to Loren for providing the \$50 in dollar gold coins for the grand prize, since our bank doesn't have them anymore. If anyone knows of a bank that sells the gold coins, let Robert know, in case we do it again for the Fall Swapfest. The profit from the Swapfest was \$1,330.25. Thanks to everyone who showed up and participated in the event.

Kevin K9VIN asked Jim K9QLP to mobilize the audit committee for the long-overdue 2017 audit. Kevin will contact audit committee member Sandy W9BTN.

### **Committee Reports:**

Ken B. (W9GA), Field Day – Field Day is the last weekend in June, at Pleasant Valley Park, two miles north of Highway 60, off of Highway I. There will be an extended discussion of the nuts & bolts of the event at the June meeting. We currently have three band captains, but need a 20-meter phone captain since Gary K9DJT had to bow out this year. As of now, our category is 4A. Tent setup is Thursday. Friday will be spent erecting the antennas and testing the equipment, capped off by a great grilled turkey dinner. Attendees bring a dish to pass. Would like to get a cook captain to fry eggs and sausage

on Sunday morning. There will be an organizational meeting at the park on June 2<sup>nd</sup> in the early afternoon. Look for details on the club remailer and on Facebook. Robert commented that he has the ORC computers, all updated, and has the network cabling ready to go. Ken encourages everyone to get involved in Field Day.

Tom R. (W9IPR), Fall Swapfest – The Fall Swapfest this year is on September 8<sup>th</sup>. There will be no conflicting events on that day within 100 miles. We may stay with that timeframe hereafter. Help needed for loading and towing the Scholarship Fund equipment to the event. Scholarship – A few items came in to Scholarship, including a gin pole which could be available to the climbers for the repeater antenna install.

**Old Business:**

There was no old business.

**New Business:**

Curt N9CBS: Reminded members not going to Dayton that HRO is having a Hamfest on May 19<sup>th</sup>.

Nels WA9JOB: The board should consider purchasing some six-foot tables for our events rather than renting.

Jim K9QLP: Regarding “passing the hat” for money for the tent downsizing, the club has plenty of money, so why the need to pass the hat? Instead use the money the club already has. Pat W9JI, by way of clarification, said that the board has already approved the funds for the tent modification, but a few board members spontaneously volunteered to pitch money into the project. Robert K4WTH said that club money is earmarked for the tent.

Robert K4WTH: If you’re going to Dayton, please take photos for the Facebook page.

**50/50 Drawing:**

Bob WI9BOB was the winner of the 50/50 drawing.

**Program:**

Robert K4WTH gave a presentation on Echolink.

**Awards:**

Ken W9GA presented the Turkey of the Year Award to Bill Church KD9DRQ. The person voted Ham of the Year was not at the meeting to accept the award.

**Auction:**

Stan WB9RQR conducted the auction. Many items were sold, including a 2-meter quad antenna.

**Adjournment:**

Nels WA9JOB made the motion to adjourn the meeting, which was seconded by Robert K4WTH and was passed by the members. The meeting was adjourned at 9:16 PM.

**Attendance:**

There were 45 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



## ORC Meeting Agenda

*June 13, 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 1: Solar Cells & Applications
5. 50/50 – Kristian Moberg, KC9TFP
6. Fellowship Break
7. Program 2: Field Day Plans
8. President's Update – 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
13. Committee Reports:
  - A. Scholarship
  - B. Fall Swapfest
  - 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 Center**

**1665 7<sup>th</sup> Avenue, Grafton**  
Wednesday, June 13<sup>th</sup> 2018

7:00 PM – Doors open

7:30 PM – Meeting