



# The *ORC* Newsletter

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ORC Repeaters on 146.97 (-127.3PL), 224.18 (-127.3PL), 443.75 MHz (+127.3PL) - Callsign W9CQO

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## From the President

de Pat Volkmann, W9JI



At the May meeting we asked how many would join the Club for a Field Day outing and about 1/3 of the group said they were interested, as long as we took precautions for Covid-19. The pandemic restrictions have eased quite a bit recently. Vaccinations rates are at 80% for people over 65 and about half of all people in the state have had at least one shot. It looks like we will be going ahead with Field Day. Ken Boston, W9GA, will be the Field Day chairman again this year. We are planning on a modest effort from Pleasant Valley Park, where we set up in 2018 and 2019. At this point we think there will be enough operators for at least three stations. There will be no Friday night cookout, but some plans are in the works for Saturday evening.

If you haven't done Field Day with a club before, I encourage you to give it a try. It's a lot of fun to be out with the group. It's a chance to learn a few things from some very experienced operators. There is also a real need for help with the non-operating part of the weekend. Field Day is, after all, a camping trip. Setting up tents and equipment, stringing up antennas, tending to the generator, preparing food and packing it all up on Sunday requires a lot help. So, if operating is not your thing, consider coming out to lend a hand with the other activities.

At the July meeting this year I would like to do a review of Field Day – both the ORC outing and any event that any of the members attended. We did this last year and it was interesting to see all the Field Day setups. Be sure to take lots of pictures to document what you are doing.

Even though the pandemic seems to be easing, we will continue meeting on Zoom, at least for a few more months. When we resume in-person meetings, they will most likely still involve a Zoom component. The video meetings will allow anyone to attend, wherever they are. The hybrid meetings will take some planning and some additional equipment to make sure that we have good audio and video. We will be talking more about this in the coming months.

One thing that we can do, now that summer is here, is to get together for lunch in the park. I have done this a couple of times with friends and it's very simple – bring a lawn chair and your lunch and sit outside. We need to find a park that is conveniently located for club members and pick a date. Maybe some time in July?

The upper HF bands have been open more and more. Signals have strong enough for CW and sideband, not just FT8 as was the usual case over the winter. Summer is also the 6 meter season. I have heard a number of reports of great propagation on 6, with paths open to Europe and Asia from the Midwest. If you haven't been on the air much, turn on the radio and see who you can work. It will also help you get warmed up for Field Day!

See you at the meeting.

Pat Volkmann, W9JI

## THE COMPUTER CORNER

# No. 279: My Email Address Was Wrong!

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



Well, AT&T really messed us up. My email ([wb9rqr@att.net](mailto:wb9rqr@att.net)) stopped working, as did my wife Nancy's ([kc9fzk@att.net](mailto:kc9fzk@att.net)). When I contacted them, they told me my account did not exist. When I explained that I had been using that account for well over five years, they told me "that cannot be since there is no record that it ever existed"! Gregg Lengling (W9DHI), who used to work for them as a master troubleshooter, told me the account probably did exist in a completely retrievable form, but the troubleshooters I contacted did not have the knowledge needed to get the account back. Rather than trying to pursue

this with AT&T, I simply created a new account with Gmail to substitute as my new main email address, and that is shown in the header in this article. So, if you tried to contact me to pick up a DVD as offered in the last article (#277), my apologies. I never received it. Just ask me again with an email to the new Gmail address above and I will honor it, quickly. Or call me.

I have fixed our addresses in the ORC roster, and elsewhere, but it is possible that I missed some folks. It is amazing how dependent we become on an email account always being there. For this reason and to help maintain my personal sense of security, I am never without two accounts, with two different entities. For example, I still maintain an old account with RoadRunner. And it still works well. Think about doing that yourself. After all, email accounts are free for the asking.

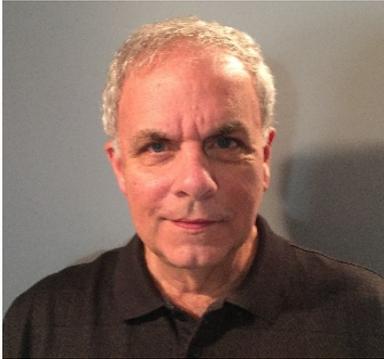
How did I come up with Gmail? I looked, but MajorGeeks does not rate email providers, just email clients (the program you use to get and send emails), so I went looking on the web. What I found was a really good, balanced article at <https://www.lifewire.com/best-free-email-accounts-1356641> by Stacy Fisher that had been updated on 2 April 2021 (you can just click or control-click this hyperlink address to go right to the article). In it, she rates ten providers, and Gmail was at the top. It was followed by Outlook, Yahoo, AOL, Yandex, ProtonMail, Zoho Mail, Tutanota, iCloud and 10 Minute Mail, in that order. The strong and weak points of each are listed, making it pretty easy to select issues that seem important to you in making a choice. I went with Gmail rather than Outlook to avoid Microsoft, and Gmail was rated first in the list, anyway. So far, it looks like a good choice.

It might be prudent to avoid using AT&T. On the other hand, Gmail is reported to sell your email and addresses – not much privacy, if any, which AT&T does not. So, the lesson I learned is: 1. Be wary of your email provider. 2. Have more than one, as a backup.

Happy computing!

# Vintage Amateur Radio

de Bill Shadid, W9MXQ



We talk a lot in this column about old radios and using them in modern times. While some mention has been made of a process to bring a long-stored piece of vintage electronic equipment back to life, there has never been any detailed information on this process published by this author.

I am going to say up front that this seemingly simple process can be unique in many ways to the radio involved. There really is no universal process for completion. The complexity of the process is directly proportionate to your experience so the less experience you have, the more complex. Be advised as we start that there is a high probability of destroying major components if not extremely careful. I have close friends

with radios rendered useless because of not really knowing what to do.

Are you sufficiently terrorized? If so, we shall progress!!!

All radios must be first made safe in terms of their power supply. This discussion is for AC powered electronic equipment – powered by any of the popular input voltages (100/200 volts AC in Japan, 120/240 volts AC in the United States and Canada, and 240 volts AC in Europe). Most other countries use one of these three standards. But you must be sure of what is used where you reside and alter these instructions with your specific voltage specifications.

Radio equipment and accessories using AC power almost always have power supplies that convert the AC power to lower voltage AC, for tube filaments, low voltage DC supplies for solid state components, high voltage DC plate voltage for power amplifiers, lower DC high voltage for receiving and lower-level transmitter circuits, and DC voltages for screen and bias requirements.

Most voltage conversions are handled by a power transformer with primary windings matching the incoming AC supply voltage. The secondary for our discussion generally consists of several windings for the uses shown in the previous paragraph.

The DC voltages developed begin as AC voltages on one of the secondaries, are rectified (converted from AC to DC) by solid state or vacuum tube rectifiers and are smoothed by a setup of electrolytic (or in some cases oil filled) capacitors and perhaps in some cases also a choke (sometimes called a reactor). Herein lies the problem area in old, especially long unused power supplies.

*Note: You need to take some time here if you are not familiar with the use and technology of transformers, solid-state and vacuum tube rectifiers, electrolytic and oil filled capacitors, or chokes (reactors) to make yourself familiar with these devices – what they look like, how they are rated, and how they might fail. This part of your radio is **extremely dangerous** – this part of your radio can kill you. You have been warned!! Keep this picture in mind especially when working on vacuum tube radios – it means just what is implied . . .*



## Get the message?



This is not mean spirited – I like that you read my articles and I want you to see the next one!

As collectors and restorers, we all think we know how to follow such a process. Radios in near perfect or perfect condition are no more exempt from such precautionary procedures than the similarly aged rusted and mishandled equipment – age is still age – pretty face or not. The critical items here are the electrolytic capacitors and sometimes early solid-state rectifiers (diodes).

Being a bit redundant, we know the power supply consists of a power transformer, rectifiers (solid-state and/or vacuum tube), and electrolytic (or oil filled) filter capacitors, and a choke (reactor. Some supplies are not designed with chokes – so do not be concerned if you cannot locate them in your radio. To bring the capacitors back to life and to check the integrity of the power transformer or any chokes present, there several items necessary:

1. An Autotransformer (VARIAC™). I use a 0-140 Volts AC, 2,000-watt unit or a 0-140 Volts AC, 1,000-watt unit for 120 Volt AC devices<sup>1</sup>. I always temporarily re-jumper 220 VAC units for 120 VAC operation and use a 0-140 Volts AC autotransformer for these tests.
2. A Wattmeter / Ammeter useable for 120 Volt AC lines. I use a P3 P4400 Kill-a-Watt™ Electricity Usage Monitor<sup>2</sup>. This device reads voltage, amperage, and wattage. (It even tracks power usage.)
3. You need Standby power (wattage) information for the radio you are testing. This will be in the specifications of the product as shown in the product instruction manual.

It is critical that you know the power consumption specifications of the equipment you are working with. This data is in the Specifications section of the Operations Manual for the equipment. If you do not have the manual, virtually all vintage radio manuals are available from various reprint services or via download from the internet<sup>3</sup>.

Here is the setup for a typical radio transceiver – here showing a vintage Kenwood TS-830S HF Transceiver. (If you are using any radio that has an audio system, be sure that you have a speaker connected – for reasons that will become clear.)



(W9MXQ Shack Photo)

Left to right in the above picture:

1. Main Power AC Strip (AC Strip 1) with Kill-a-Watt the only item connected.
2. 2000 VA Autotransformer – getting power via the Kill-a-Watt Device
3. AC Strip (AC Strip 2) drawing power from the Autotransformer. Note Digital AC Voltage meter plugged into this strip.
4. The Kenwood TS-830S HF Transceiver under test – plugged into the AC Strip in item 3, above.

The startup from zero incoming AC volts to full 115-120 VAC operation should never exceed the AC power (wattage) specification of the radio. For instance, the manual for the TS-830S (shown in the test setup, above) indicates 32 watts with the final amplifier and driver tube filaments switched off. So, since we want all items on for this test, let us look at what else is involved:

- Final Amplifier Tubes
  - Two 6146B Amplifier Tubes running 6.3 Volts @ 1.125 Amperes each.
- Driver Tube
  - One 12BY7A Driver Tube running 12.6 Volts @ 0.3 Amperes.
- Total vacuum tube filament power requirements:
  - $(6.3 \text{ volts} \times 1.125 \text{ amperes}) = 7.1 \text{ watts}$ . 2 tubes = 14.2 watts
  - $(12.6 \text{ volts} \times 0.3 \text{ amperes}) = 3.8 \text{ watts}$  for the single tube.
  - $(14.2 \text{ watts} + 3.8 \text{ watts}) = 18 \text{ watts}$  for filament power required
- Total Standby Power Required
  - 32 watts for receiver and low-level receiver power (per manual)
  - 18 watts for transmitter tube filaments (per above calculations)
  - $(32 \text{ watts} + 18 \text{ watts}) = 50 \text{ watts}$  total power.

Suffice it to say that those are DC calculations we are using for AC circuits – but it is close enough for our purposes. Just note above that all factors of the power drawn in standby must be included. The Kenwood TS-830S Operating Manual only shows on part of power consumption for our purposes – the balance had to be calculated using data we can find. In this case, a vacuum tube specification manual<sup>4</sup>.

The 50 watts is a figure that can be read on the P3 P4400 Kill-a-Watt Electricity Usage Monitor, mentioned above. Alternatively, that can be converted to amperage (using the  $P=VI$  formula as a basis). For the TS-830S the known points are 50 watts and 120 volts so the formula would be modified to show the current as  $I = P/V$  or  $(50 / 120) = 0.42$  amperes. I use wattage on this instance because it does not change as the voltage changes as a total consumption of power.

Some considerations before starting the process:

1. The digital voltmeter in the autotransformer works from zero to 130 volts AC as delivered from the secondary of the device. However, it is not quite linear. For our purposes it is accurate enough.
2. The digital voltmeter plugged into the AC Strip between the autotransformer and the radio under test shows a second digital voltmeter. This one does not begin to register until about 60 volts AC but is much more accurate than the one in the autotransformer. So, both meters have their purpose.
3. Some radios – such as the Kenwood TS-830S shown here – do not have a grounded AC plug (the TS-830S is self-contained and includes its AC power supply. In such an instance I connect the chassis of the radio to the chassis of the autotransformer and then that is made further secure by connecting the chassis of the radio to the station ground.
4. Keep in mind that the Kill-a-Watt monitors do not work at voltages below about 80 volts AC so they must stay in the primary circuit feeding the autotransformer. Since we only want the Kill-a-Watt to read total power its placement is of no consequence. But remember that its voltage readout mode is not of value in this analysis – except perhaps to know the actual primary voltage being fed to the autotransformer.

Now that connections have been made, be sure that the autotransformer is set to zero output volts – as shown on the digital meter on the autotransformer itself. Also, the power switch (or switches) on the radio under test must be set to “ON.” And the AF Gain on the transceiver needs to be set so when the radio becomes operational its sounds can be heard. (Also allows for hearing other tell-tale sounds to be discussed below.)



**Autotransformer powered on and voltage set at Zero Volts**



**Radio shows both power switches “ON” and AF Gain at about 30% level**

**Ready to Start**

So, again, the voltage feed in the left AC Strip (AC Strip 1 – see setup picture, above) is receiving AC power, the Kill-a-Watt and the autotransformer are plugged into AC Strip 1. The autotransformer is set to zero. The AC Strip 2, between the autotransformer and the test radio, is connected to the output of the autotransformer. The test radio is connected to AC Strip 2. Be sure, as noted in the picture, that the AF Gain is set to about 30% of range – and the RF Gain should be at maximum. You may find at some point you need to adjust the AF Gain, up or down. Set the Kill-a-Watt so it is reading Watts. (Done by pressing the button with the legend, “WATT” (this position also indicates “VA” which means Volt Amps – meaning a calculation if  $V * A$ ).

Generally, I do not have the antenna connected during this test – because since I am in the shack anyway, I connect a dummy load to the radio being tested and get on the air with my regular station. But it does no harm to have the antenna connected and there are some benefits as will be explained later.

We are ready to start – during the process, do not leave the setup unattended for more than a few minutes. I never let the setup run even while having a meal or if I leave the house – I do not even leave the room where the test is taking place for more than a few minutes at a time. I arrange my schedule, making this process my top priority. If necessary, I eat lunch and/or dinner where the radio is being tested. Laugh or otherwise comment – but the radio is in a potentially critical situation at this point – any component failure can destroy the power supply and more. For this first, 20-volt, setting, I generally leave the setting for two or three hours. All the while, keep regularly monitoring the wattage on the Kill-a-Watt. While problems can occur at 20 volts – the low power being consumed will limit damage.

Keep confirming under 50 watts on the Kill-a-Watt device. With the TS-830S used for this article, setting the autotransformer to 20 Volts AC output to the radio netted 13 watts on the Kill-a-Watt readout. If you do not see some power at this point, then you need to check your connections to be sure AC voltage is being fed to the power supply in the radio. Be aware that the power switch in the test subject may be open (defective) or the power transformer could have an open winding. Or there could be a blown primary fuse. (Blown or incorrect specification fuses are often an issue in older radios.) If you still see no power indication on the Kill-a-Watt, then the process ends here – something else is wrong and there is a need for troubleshooting of the radio without power applied.

All along this process, listen for any pops, buzzing, screeching, or any odd noises coming from the speaker. These indicate internal problems – likely with the electrolytic capacitors. If you hear such noise, then the process stops - something else is wrong and there is a need for troubleshooting of the radio without power applied.

If none of the symptoms mentioned above occur, then after two or three hours (the more the better) you can turn the voltage up by another 15 volts – to 35 volts. Watch the Kill-a-Watt for any large excursions upward. The Kill-a-Watt does not move quickly. Watch if for a few minutes to see how much more power you are consuming. At 35 volts you still should be relatively low – well below the calculated 50 watts. Keep watching that wattmeter and listen for any of the noises mentioned above – even advance the AF Gain to see if you can then hear anything. Most all vacuum tube circuits will not begin to conduct until much higher primary voltage, but the pops and buzzing may occur if there is a significant problem. A hiss from the speaker is generally okay but probably not going to occur at 35 volts.

*Note: Depending on how I feel about the radio, I might decide to monitor voltages as the test is being run. This is particularly true of vacuum tube circuits. Those radio's power transformers and their multiple secondary windings can be problematic. A shorted winding may be less likely to show when simply monitoring incoming power. In such a situation I would have the radio chassis open and perhaps several meters attached to critical voltage points. This is dangerous – and can burn you, or much worse. DO NOT do this if you are not experienced in working with high voltage circuits. DO NOT even approach the radio without one hand in your back pocket. DO NOT provide a path for*

*electricity to pass through your body – such as having one hand on the chassis and the other hand on the HV lead. Laughable?? I do not think so!!*

If all is well, we can move from 35 volts to 50 volts on the autotransformer. Again, immediately check the Kill-a-Watt for a wattage reading of under 50. At 50 volts it is likely that you will hear some sound from the speaker. Equipment with solid state power supplies and audio systems tend to start showing activity at this point – but not always. Also, at 50 volts the digital voltmeter on AC Strip 2 starts to work. This may be different in your installation. So, you could hear some “hiss” from the speaker. But, here again, if you hear pops or buzzing or screeching the process stops - something else is wrong and there is a need for troubleshooting of the radio without power applied.

Assuming continued smooth progression of the wattage as the voltage increases you may apply more voltage via the autotransformer in steps of 15 to 20 volts after at least an hour at any setting. After about 60 volts you are highly likely to hear activity and even signals if the antenna is connected. Pilot lamps, depending on ambient light in the room, can become visible at much less than 60 volts applied. The digital readout in the TS-830S begins to work, dimly, at about 62 volts.

Assuming all has gone well, you will arrive at full operation in about ten hours – give or take a bit. If the radio does not come to life, then other work is necessary – not in the scope of this article. If it works but is very noisy with hum, or similar noise, then likely you need to replace the power supply electrolytic capacitors. I have never had to replace oil filled capacitors or chokes. Older radios with solid state diodes may need to have them replaced with modern devices. If there are ANY selenium diodes they should be replaced immediately – even before the attempt to bring the radio back to life. While there are sometimes reasons to replace vacuum rectifier tubes with solid-state diodes, they are rare. DO NOT wholesale replace vacuum tube rectifiers. To do so significantly increases the resulting output voltage and likely makes the filter capacitors work close to, or are over, their design operating voltage. That, in turn, stresses other components in the circuit. Also, vacuum tube rectifiers, by their very design, allow for current limiting at startup which reduces current peaks as the circuit begins operation.

Note: Some users of this kind of method to return a long-stored radio to general use can relate to these three other notes – for your reference:

1. Many of these radios will need the electrolytic capacitors replaced. I do not replace them without reason, however.
2. Some restorers limit the amount of power put into the radio. That can be done in a variety of ways, including wiring an incandescent light bulb in series with the AC Line. I do not do that because I am intense about monitoring the power drawn and listening to the sounds produced by the radio. My procedure works for me but admittedly without my level of attention this may not be suitable in your case. Be aware of that, please.
3. This method of restoring a long dormant radio is NOT SUITABLE for linear amplifiers using large transmitting tubes. While the method herein does apply to the linear amplifiers in your desktop transceiver using sweep tubes or the 6146 family of tubes – like the 6146B's in the subject radio for this article. For high power linear amplifiers, this procedure could damage the filaments in the tubes. Because of that, long dormant high power linear amplifiers should have their filter capacitors (if electrolytic) and silicon diodes replaced for safe operation. Is that perhaps wasteful of good components? Perhaps. But these high power and high voltage devices are worth the extra expense to bring them back safely. The potential cost of damaging these expensive tubes is well worth the price of component replacement.

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

A special note of thanks to my proofreader, Bob Bailey, W9DYQ. Bob is a bit more than a proofreader as he often adds commentary that makes it into the article.

### **Credits and Comments:**

<sup>1</sup> You will find suitable autotransformers on Amazon, eBay, or other sources using the description shown in the article. In addition, I also use a 1,000-Watt unit for 120-Volt AC devices. Sometimes it is handy to have two autotransformers.

<sup>2</sup> The Kill-a-Watt™ unit mentioned is available at local hardware stores in many cases or on Amazon and eBay using the description shown. I cannot comment on other brands of such a unit but there are many.

<sup>3</sup> While there are many online retailers and download sites for vintage (and current) radio manuals, these are the ones I most frequently use – keeping in mind that the best manual reprints are not a low-cost item but worth their weight in gold for proper restoration:

<http://www.KE9PQ.com>. Nationwide radio is a purveyor of reprint and some original manuals for sale. Quality is excellent with reasonable pricing.

<http://www.hamradiomanuals.com>. This is WB2JKJ who works with inner city kids to teach ham radio, help youngsters get licensed, and even supply them with equipment, through donations, to get them on the air. In addition, the group sells good reprints of most vintage radios.

<https://bama.edebris.com/manuals>. This is a free download site with a considerable inventory.

<https://kaysgoods.wixsite.com/kays-manuals/about>. A good inventory of vintage and current reprint manuals of exceptional quality – many times they are easier to read than the originals. The books include large size schematics. Heavy paper and binders that allow the manual to lay flat on the workbench while in use.

<https://manualman.com>. An outstanding supplier of hard-to-find manuals. The quality is exceptional. Heavy paper and binders that allow the manual to lay flat on the workbench while in use. The proprietor is also a vintage radio restorer and contributor to vintage radio reflectors.

<sup>4</sup> Older editions of the Radio Amateurs Handbook, old tube manufacturers data sheets and data books (some available online), and general internet searches by vacuum tube model (such as 6146B and 12BY7A in this case) can also net specific vacuum tube specifications. Be careful with tube model suffixes. For instance, the 6146 and 6146A do not have the same filament specifications as the 6146B.

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# On The Air!

De Gary Sutcliffe (W9XT)



First off, I decided to change the title of my column. It started out covering DX in 2012 after being asked by Tom, W9IPR, the newsletter editor at the time. Bob, W9LO, had a column on contests. After he became a silent key, I started including contests. Each month I would list the big contests, basic information, and maybe some operating tips. After all these years, it sort of got redundant. The basic rules usually don't change that much year to year, and I always encourage you to read the full rules if you decide to operate a contest.

So, I changed the name to *On The Air!* I will continue to list upcoming contests and big DXpeditions and cover other things happening on the air. I hope the more general focus will be of interest to ORC members.

Last month I mentioned the Contest University (CTU) event held on May 20. Normally this is held in person the Thursday before the Hamvention®. It was a free virtual event last year and this year because of COVID.

There was a presentation by José Nunes, CT1BOH called "*There is nothing magic about propagation.*" José is a world class contester. He described some work he did during the lock down on propagation prediction that has the contest and DX community in a buzz.

I have talked about propagation programs here in the past. They will give you the percentage of days a given path will be open. For example, it might say we will have propagation to Japan on 15 meters 76% of the days in a given month. It is sort of like a weather forecast with a 50% chance of rain.

That is useful, but we always would like to know if it will rain or the band will be open *today* with more certainty.

For a path to be open between two locations, the ionosphere must refract the signal back to earth. The maximum frequency of a given area of the ionosphere will refract from is called the Maximum Useable Frequency (MUF). The MUF will vary by time of day, season, and solar activity.

If the path uses multiple hops, the MUF must be equal to or higher than the frequency you want to use.

So how do you know if all the spots on the path are above the MUF? In real time? It's tough. A site I recently heard about is at <http://prop.kc2g.com/>.

It shows a map of the world with MUF isolines. It sort of looks like a weather map but shows MUF instead of air pressure isobars. This site is updated every 15 minutes and is based on the data from ionosonde stations around the world. These are special radars that shoot signals straight up and sees what gets reflected back. The problem is that there are not all that many ionosonde stations worldwide, resulting in much of the numbers shown on the map being extrapolated.

What is needed is more information from more locations. Well, there is such a source. If you operate the WSJT modes, you can check the configuration box to send every station you decode to a central server. You can see who hears who by going to <https://www.pskreporter.info/>.

You can set the map up for the band you want to see. You can also set it up for a single station. It is interesting to see who is hearing you. The site has an incredible number of reports. It just went over 30 *billion* spots a couple of weeks ago, and it added another 350 million since then. The latest ARRL Eclectic Tech podcast episode interviews the creator of PSKReporter, N1DQ.

So, CT1BOH used this real time data to see what the MUF was at along various spots along the paths based on reception reports. Essentially, he determined the MUF isobars based on more data.

The current propagation programs are based on a propagation model created about 60 years ago using statistical data for determining the best frequencies for the Voice of America. Our understanding has improved since then.

CTU records all the talks and puts them on line. As of the time this is being written, it has not been uploaded. By the time you read this, it will probably be available at <https://www.contestuniversity.com/videos/>.

If it is not available, try this link: <https://www.youtube.com/watch?v=q-esob7BPtc>

I watched it during CTU and plan on going back and watching it again and probably several times. It is well worth checking out if you are interested in long distance communications.

The 6 meter sporadic E (Es) season has a pretty good start so far. The band has been open to many parts of the country almost every day. We had an excellent opening to Europe one day. Gary, K9DJT, worked his first Europeans on the band. Ken, W9GA, worked about thirty stations there and chased a couple of countries he needed but had no luck. I picked up two new countries on the band that day. It was interesting seeing who Gary and Ken were calling and working. Sometimes I could not hear who they were calling, and there were times they could not hear who I was working. Even the short distances between us made a lot of difference. Es, especially multi-hop Es, can be like a moving spotlight.

The night of May 24 was an exciting one for me. Six was open to the west coast very late. I picked up some new grids out that way, then Hawaii started coming in. I have been trying to work KH6 for years to finish my 6M WAS. I was able to work one quite easily at 11:00 PM local. I finally had to call it a night at 1:00 AM, but the band was still open. With 6M, you never know.

Most new rigs include 6M. Throw up a wire in the next few weeks. Some guys use their 80M dipoles with success. Beams are even better, and some are not much bigger than an old TV antenna. It is a lot of fun. Because signals are often weak, FT8 is the primary mode, but if signals are strong, try CW or SSB. I heard a few CW stations during the big European opening, but they were weak and could not hear me.

There are two contests in June. The first one is the ARRL June VHF contest on the weekend of June 12. This event can be a whole lot of fun if 6M opens up. FT8 will be a big mode, but if signals are reasonably strong, check SSB and CW. You can make contacts much faster than with the digital modes. If conditions are good on FT8 but not able to support CW or SSB, try FT4. That happened at times last year, and very few stations realized they could make contacts much faster on FT4. You can only work a station once per band, and all QSOs have the same point value, so it makes sense to make them as fast as you can.

Be sure to set the WSJT NA VHF Contest button in the advanced settings window. Full rules at <http://www.arrl.org/june-vhf>.

Of course, the other big event is Field Day. After being locked down last year, it will be good to get a bit closer to normal. ORC FD this year will not be completely back to normal, but we will be operating in tents this year, June 26-27.

A contest to check out in early July is the IARU HF World Championship. July 10-11. Work the world. It is the biggest contest until next fall. Check out the rules and note the special multipliers for working IARU headquarter stations. <http://www.arrl.org/iaru-hf-world-championship>

Nothing significant is showing up on the radar regarding Dxpeditons in June. There is an interesting one at the end of July which will be covered in the next issue.

See you at Field Day!

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## ORC Field Day Covid-19 Guidelines

The Ozaukee Radio Club will follow the CDC recommendations for Covid-19, in addition to state and local regulations. At this time, the state of Wisconsin and Ozaukee County follow the CDC guidelines.

**If you are fully vaccinated** you no longer need to wear a mask or practice social distancing.

**If you have been vaccinated but it has not been two weeks since the last shot** you are not fully vaccinated. We ask that you wear a mask and maintain a 6 foot distance from others.

**If you are not vaccinated**, we ask that you wear a mask and maintain a 6-foot distance from others.

Field Day visitors are welcome to observe, but not enter, the radio operating areas.

Anyone who wishes to wear a mask, even if vaccinated, is welcome to do so.

If you have health concerns, discuss them with your doctor prior to attending Field Day.

If you do not feel comfortable joining the group for Field Day, the ARRL has continued the home operating rules changes for this year.

For More Information:

[State of Wisconsin Department of Health Services Covid-19 Information](#)

[Centers for Disease Control and Prevention Covid-19 Information](#)

# Vintage Magazine Cover Art

By Pat Volkman, W9JI

Our cover this month, "How To Use Your Set on Your Vacation", is from the June 1923 issue of Popular Radio. Popular Radio was a technical magazine, aimed more at the skilled user than the novice. This issue addresses the concern of "static" which was believed by many to render radio useless in the summer months. Not so, say the authors in Popular Radio. The opening line of the lead article states that "THIS is the time of year when the prudent radio man is making his plans for using his set on his vacation outings." While not quite a Field Day theme, this issue has several photos of radios in use while camping, fishing and boating. There are detailed descriptions on how to build several types of radios suitable for portable use. There are even instructions on how to throw a line over a tree to haul up an antenna.



"How To Use Your Set on Your Vacation" Popular Radio, June 1923

# Ozaukee Radio Club

## May 12, 2021 Meeting Minutes

de Ken Boston W9GA



This ORC meeting was conducted via an online (internet) connection using the ZOOM app. Prior to the meeting start, those members who were able to access the 'waiting room' via phone or computer/webcam were then introduced into the meeting space hosted by Pat W9JI. At that time various audio and video connection issues were addressed for the members before the meeting began.

ORC President Pat W9JI officially initiated the meeting at 7:33 PM, as introductions were recognized when members checked into the meeting, a go-around was not conducted. Ken W9GA mentioned that the KEY\_UP certificates had been mailed.

### **Program:**

Mike, KC9GCN gave a thorough overview of his home HAM radio station(s), as he has a primary and a secondary operating position in his house. The primary station is centered around a Yaesu FT991 and AL-800 amplifier, and the secondary position uses a Yaesu FT891. He gave details of the station accessories and the grounding and wiring he installed to support the stations. He also described his mobile installation using a Yaesu FTM400xdr, and his antenna installation on his boat, which is used with one of his radios when going maritime mobile. He is also playing around with an SDR play unit.

### **Committee Reports:**

Gregg W9DHI [repeater] mentioned 18 check-ins on a recent Tuesday night net; and that the 222 system is working well. There have been some minimal QRM issues that are being investigated.

Gary N9UUR [treasurer] is seeing a few renewals and otherwise low cash flow activity. W9DHI moved, W9MXQ 2<sup>nd</sup> of acceptance, motion carried.

Ken W9GA [secretary] posted minutes of the May 2021 meeting; W9JI moved, W9MXQ 2<sup>nd</sup>, motion to accept then carried.

Tom W9IPR [scholarship] again indicates no new developments, waiting until September when the remaining CD can be taken off of auto-renew, and the money can be transferred to the ARRL.

### **OLD Business:**

The fall Swapfest is scheduled for September 11, 2021. Expenses are estimated to be under \$300, with the hope of a positive turnout, ensuring some profits. 600 flyers are being printed, with 200 of those slated to be taken to HRO for dissemination

Field Day plans were introduced, with a definite presence at the Pleasant Valley Park just north of Grafton/Cedarburg. Several members will be available this summer, so we will have 3 or 4 stations plus VHF at the site. A future meeting is planned, and we will be discussing a COVID protocol for everyone's protection at the future meeting. One facet of the ORC field day, the Friday night party/gathering will NOT be a feature this year.

Gary N9UUR has been recording the recent meetings and presentations and has been posting them on YouTube.

### **NEW business:**

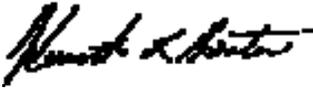
The members discussed the lack of usage on the ORC 'chatter' link from the website, so it was decided to have that feature turned off.

**Adjournment:**

There were 37 members (unique callsigns) recorded as check-ins. Contact Ken W9GA to obtain the list. WB9RQR moved to adjourn, N9UUR 2<sup>nd</sup>, motion carried. The meeting ended at 8:35 PM.

Following the meeting, breakout rooms for Mike's presentation were opened.

Respectfully submitted,



Kenneth Boston W9GA  
Secretary

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## Upcoming ORC Monthly Meeting Programs

**June** – Ken Boston, W9GA – Field Day

**July** – Pat Volkmann, W9JI – Members' Field Day Reports

**August** – Tim Duffy K3LR – K3LR Talks About Contesting

## Creating a Presentation

Almost all of our presenters use Microsoft's PowerPoint to organize and present their information. If you don't have access to or aren't familiar with Power Point there is an alternative. The Open Office package contains Impress, which is similar to PowerPoint. Impress is easy to use and available at no charge. You can check out OpenOffice here: <http://www.openoffice.us.com/>

The monthly program is the highlight of the Ozaukee Radio Club meeting. We are fortunate to have a number of very talented people in our club, many of whom have shared their knowledge through a presentation. Share your expertise and experience with the club. Programs can be on any topic that is ham radio related. Contact Pat Volkmann W9JI at [orc\\_pat\\_w9ji@outlook.com](mailto:orc_pat_w9ji@outlook.com) (underscores between the words left of the "@" ) to discuss your idea for a program.

## **ORC Meeting Agenda**

*June 9, 2021*

1. 7:15 – 7:30 PM – Check-In and Introductions
2. 7:30 PM Call to Order – President Pat Volkmann (W9JI)
3. Announcements, Bragging Rights, Show & Tell, Upcoming Events, etc.
4. Presentation: Ken W9GA, Field Day
5. President's Update – Pat Volkmann (W9JI)
6. 1<sup>st</sup> VP Report – Ben Evans (K9UZ)
7. 2<sup>nd</sup> VP Report – Bill Church (KD9DRQ)
8. Repeater VP Report – Gregg Lengling (W9DHI)
9. Secretary's Report – Ken Boston (W9GA)
10. Treasurer's Report – Gary Bargholz (N9UUR)
11. Committee Reports
12. OLD BUSINESS
13. NEW BUSINESS
14. Adjournment

### **Meeting Note:**

Until the club decides it's safe to hold in-person meetings again, we will be holding the meetings via the Zoom Videoconferencing platform on the same evening and time as we had the in-person meetings. Sign-in info will be emailed by President Pat Volkmann, W9JI via the ORC remailer usually about an hour before the start of the meeting.

Return undeliverable copies to:

### **The ORC Newsletter**

524 Alta Loma Drive  
Thiensville, WI 53092

### **First Class**

### **Next ORC Meeting via Zoom June 9, 2021**

7:15-7:30 PM – Check-In  
7:30 PM – Meeting Begins