



The *ORC* Newsletter

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From the President

de Pat Volkmann, W9JI



Well, we made it to another year. This past year was one of the strangest, scariest, difficult, tumultuous and possibly the most boring year that any of us have experienced. Everyone was affected by the Pandemic, though for many of us that amounted to staying at home more and wearing a mask to the grocery store. The most significant Covid-19 induced change, for me, was cutting off in-person contact with all my friends in the ORC. Yes, we successfully used Zoom meetings to keep in touch, but it's just not the same as getting together for a meeting and then going out for pizza afterwards. Hopefully, things will become somewhat more normal in the coming year.

With a return to normal in mind, the Board has decided to go ahead with the Spring Swapfest. While it's still much too early to tell what will happen, we are going ahead with plans. The proposed date is May 1, 2021. We will be watching developments on distribution of the vaccine and the progression of Covid-19. The event will likely be different than in previous years, most likely incorporating some social distancing and other changes. Tom Trethewey, KC9ONY, will be taking the lead on the Swapfest arrangements. Please contact Tom if you are interested in helping out with the Swapfest.

January is the month when we elect officers for the ORC. This year Tom Ruhlmann, W9IPR, is the Chair of the Nominating Committee. The Nominating Committee is responsible for soliciting candidates for each position and running the election. The list of candidates was published in the December 2020 Newsletter. If you are interesting in nominating yourself or someone else for a position, please contact Tom prior to the meeting. Candidates may also be nominated during the meeting.

The election process will be the same as in previous years except that we will be using the Zoom meeting platform. Zoom has a feature called "Polls" that can be used for voting. The procedure is very similar to what do at the meeting and is anonymous. We have used polls a couple of times in meetings, so the practice should be familiar to most members.

January also kicks off the Award nominations for the club. Ken Boston, W9GA, will once again be our Awards manager. Ken will have ballots for the awards at the January meeting. The main awards every year are "Ham of the Year" and the "Turkey Award", but these are not the only ones. There are a total of 15 awards, all of which are listed on the ORC website in the bylaws. Take a look at the list and let Ken or me know if you would like to nominate a members for one of those awards.

The Ozaukee Radio Club has produced a very high quality newsletter for many years. While many clubs publish a newsletter, I believe that ours stands out from the crowd. We look forward to the regular contributions of Gary Sutcliffe, W9XT, Stan Kaplan, WB9RQR, and Bill Shadid, W9MXQ. These guys have provided a steady stream of professional quality articles for many years. It's also important to understand that a newsletter does not assemble itself. Tom Ruhlmann, W9IPR was editor for many years and passed the job on to Ben Evans, K9UZ. Thanks to everyone for their contribution to making the ORC newsletter the fine publication that it is today.

See you at the meeting.—Pat Volkmann, W9JI

THE COMPUTER CORNER

No. 274: Belt versus Suspenders*

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*[*Stan roughed out the original article and Pat, who had done a project on just this subject while in engineering school, contributed several important points to this final edition.]*



What do you do when you need a ring or spade terminal on the end of a wire? Solder one on? Crimp one on? It's a puzzlement!

Well, there are several issues. We hams know that a well-made solder joint will tend to prevent any RF from leaking from poor connection between the elements of the joint owing to the electrically secure connection between the copper wire and the metal of the terminal. Also, we assume that the solder filling in the gaps between multiple strands of copper in a terminal will exclude air, and thus prevent or delay oxidation of the copper over the years. Such oxidation has been known to induce high resistance between copper and terminals, leading to heating problems and even the generation of RF noise. Solder is also useful because its low melting point poses minimal risk of damage to components. Chalk one up for a well-done solder joint. On the other hand, solder has little mechanical strength, leading to the well-accepted practice of also providing a mechanical interlock (e.g., a wire wrapped around a terminal) with the solder joint.

Indeed, solder connections are sometimes avoided or even forbidden. American Boat and Yacht Council standards forbid solder as the sole means of electrical connection for wire terminations (though you can solder after crimping). We know that, correctly applied, a solder joint can be strong and highly conductive as mentioned earlier. On the other hand, solder joints are somewhat brittle and prone to failure when they are under constant vibration. That is why motorsport organizations tell their folks to avoid solder joints when reliability is critical. Closer to home, the National Electrical Code prohibits soldered connections in service wires and ground or grounding wires. Service wires are upstream from over-current devices (breakers or fuses), and a fault resulting in a high current might melt the solder in a connection, leading to loose elements and a more serious current fault or even an explosion in a service panel. Aside from service wires, a melted solder connection in a ground/grounding wire could lead to a poor ground connection or no ground at all. Of course, this is dangerous and could lead to shock or electrocution. Electricians avoid solder connections like the plague, and claim soldered joints are a thing of the past. They go for pressure connectors, either crimped or bolted, and call them "solderless".

So, what is one to do? As you may know, Stan does lamps, and this includes chandeliers. Chandeliers must be grounded (for good reason, which is the topic for another article), often with an unobtrusive bare stranded copper wire that snakes down the chain from the ceiling to the fixture, along with the two-wires that supplies the hot and neutral lines to the bulbs. At the top, the electrician can connect the bare wire under a screw in the service box that effectively grounds that end. But often there is no such screw available to connect the bare wire to the fixture. The best way to fix this is to terminate the stranded ground wire in a 3/8" ring terminal that surrounds the threaded rod of the chandelier itself. But how to make that ring terminal secure (physically and electrically) to the ground wire? Stan takes the "belt + suspenders" approach.

He removes any plastic from the new ring terminal and securely crimps it (using a proper tool) to the ground wire. A strong pull tests that crimp connection. Then, using rosin-core (of course) solder, he solders it. CYA! The best of all possible worlds! It really cannot get more secure than that.

Pat points out that this general approach is good for hams, too. That is, solder joints should have mechanical stability to improve reliability. A crimped joint, even if a tiny bit loose, may accomplish this in combination with proper soldering.

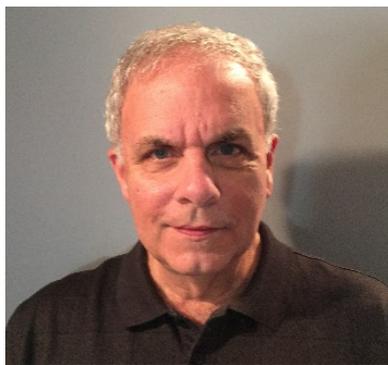
To sum up, the best approach is to properly crimp the connection and test it by trying to pull it apart. A tight crimp will be about as strong as the wire, and if properly crimped, it will not come apart. Then solder it for top notch electrical continuity, excluding the air, and so on.

So, think about that the next time you are installing terminals at that repeater site. Or on the wires in that heavy duty power supply. Or wherever.

Happy computing!

Vintage Amateur Radio

de Bill Shadid, W9MXQ



For this article I am going to push the limit on the term “Vintage” a bit and talk about a series of radios that are still in wide use to this day. I am speaking of the Ten-Tec radios in the Corsair and later analog Omni Series. In order of appearance on the market, the Corsair, Corsair II, the Omni V, the Omni VI, and the Omni VI Plus. These transceivers appeared on the market from about 1982 until 2002.

These popular radios came from a time when Ten-Tec marketed through the traditional dealer network. This was before the time when Ten-Tec became factory direct. Factory direct is Ten-Tec operating preference to this day. As I will explain, Ten-Tec has roots in central Illinois and its predecessors were operating there when I was a young ham. I will explain all of that as my own interpretation of history at the end of this article!!¹

There have been and still are many Ten-Tec radio models. The ones I am describing in this article were the company’s flagship rigs at the time they were made. But, Ten-Tec always did, and still does, market radios in different lines and price ranges.² Some will argue the difference in customer focus of the original Ten-Tec and the one that exists today – but that is not in the scope of this article.

The first of the series was the Corsair, later replaced by the Corsair II, pictured here. (As with many models, upon the release of the Corsair II (in 1985), the Corsair (from 1982) became known as the Corsair “I” in the ham radio community. All the radios in this article were completely solid state (as all Ten-Tec radios were, except for linear amplifiers), provided a nominal 100 watts output – a bit more on the low bands and a bit less on 10 meters.



Left to Right
561 Corsair II HF Transceiver, 263G Remote VFO
 (Matching 961 AC Power Supply not shown)

W9MXQ³

To some, the Corsair I was more attractive because of its darker front panel color. Features on the I and II were very similar except for the addition of continuously variable bandwidth filter use in conjunction with the ability select from a variety of fixed bandwidth filters on the Corsair II. That filter selection was available in the original Corsair but the addition of the ladder filter was one step ahead in interference management.



Ten-Tec Corsair HF Transceiver (AKA Corsair I)
Ten-Tec Sales Brochure

It may be a stretch to include the Corsair models in this article for one particularly important reason. The Corsairs use a permeably tuned free running oscillator VFO (PTO). Successor models (the Omni V, Omni VI, and Omni VI Plus) used a PLL VFO. The advantage goes further in that the later transceivers were microprocessor controlled and therefore could be controlled by an external computer. At that time, the computers of choice for the ham shack were focused on the Apple II, the Apple Macintosh, the IBM PC (and compatibles), and the Commodore 64 and 128. There was no way to control the original Corsair I or the Corsair II with a personal computer⁴.

One oddity with the Corsair radios was a design flaw in the radio. The Corsairs both transmitted and received on Lower Sideband (LSB) on 17-meters. How this happened is anybody's guess. It was corrected by the user by setting the MODE switch on SB-R position (meaning Sideband Reverse). Like many radios of the time, the sideband used by band was a given – 160-40 was LSB and 20-10 was USB. In the Corsair radios there was some issue in the design that left 17 meters on LSB as the standard. Incorrect!! Why did Ten-Tec never address this – and most certainly so when the Corsair II was introduced? A question lost to time!

Facing heavy competition from digital based transceivers from Kenwood, Yaesu, and Icom, Ten-Tec moved into the digital frequency control, and externally computer-controlled radio market, in 1988, with the introduction of the Omni V Transceiver. It replaced the aging technology of the Corsair I and II. Here is the Omni V. Notice its family resemblance to the Corsair II:



Left to Right
Omni V HF Transceiver & 961 AC Power Supply

W9MXQ

The Omni V unit offered RS-232 computer control access – and unlike its competition of the day, did not support other communication formats. The Omni V pictured can be controlled by most present-day logging and data communication software. The Omni V kept the excellent Notch Filter and Passband Tuning (PBT) features of the Corsair radios.

Like the Corsair models, the Omni V uses a 100-watt output PA system of similar design. It was typical at the time for domestic transceivers to stick with a single PA and use it across the product line. To accomplish remote (computer) control of the Omni V, Ten-Tec used soft touch push button, diode controlled switching for band and mode selection. Note the plentiful button population on the Omni V front panel – and the absence of rotary switches. The only missing feature in the Omni V was the ability to make direct frequency entry using the light gray keyboard visible on the control panel, to the right of the main tuning knob⁵.

The Omni V included the 30, 17, and 12-meter WARC bands. Since it was not yet a band allocated to ham radio, the 60-meter band was absent.

Where the Omni V was like the Corsair models, and much of their competition, was the lack of frequency by band memory. That is, if the user is on 7.250.00 MHz on 40 meters and switches to 20 meters the radio will be on 14.250.00 – the Omni V lacked band registers. The Omni V, however, was unique in all the Omni and Corsair series to that point by incorporating a transmit audio monitor for SSB and FM transmission. All Omni transceivers had CW transmission monitors, but none thus far had a voice transmission monitor. Omitted from the previous Corsair series, however, was an internal CW electronic keyer – a rather odd omission from a company known for making radios that focused on the CW mode.

The Omni V was somewhat criticized for not having Receiver Incremental Tuning (RIT) function (known as a Clarifier on Yaesu radios). The Corsair transceivers and the Omni models before the Omni V had RIT. The Corsairs also offered Transmitter Incremental Tuning – somewhat uncommon at the time. But Ten-Tec felt at the time that their implementation of multiple VFO's (part of the memory system) was a reasonable substitute. In my opinion it was reasonable – but it was different at a time when such features were seemingly deemed, by the users in the field, as needing to be identical from brand to brand. Over the years, I have used the Omni V quite a bit and I find no issue with their implementation of offset tuning using a second VFO.

A genuinely nice feature in the Omni V is a clock/calendar that shows time of day or date in place of the readout with the press of one of two (time or date) buttons on the front panel. The radio also introduced an optional digital voice readout of frequency at the press of a front panel button. And, for the first time on a Ten-Tec radio, the FM mode was offered as an option with a plug-in board and dedicated FM Mode button on the front panel.

I have been a fan of Ten-Tec receiver design for years and find that they are some of the most comfortable receivers for listening and operating, even to this day. The Omni V in this respect is perhaps the best. The Omni VI and VI Plus were excellent, but the Omni V seems to take the crystal mixing analog design to best advantage. Proof of their fine performance is evidenced by the rarity of finding good examples of the Omni V on the used market.

In 1992, Ten-Tec introduced a major upgrade to the Omni V with the Omni VI. While there are significant similarities in the look of the Omni V and Omni VI. The new radio offered Ten-Tec's first foray into Digital Signal Processing (DSP) in the receiver section of the transceiver. While it was rudimentary DSP, it was before any such systems appeared on its Japanese competition.

Here is a look at the Omni VI in a station setup:



**Left to Right
Omni VI HF Transceiver & 962 AC Power Supply
Shown with Timewave DSP-59+ Audio DSP Unit & KLH Bookshelf Speaker
W9MXQ**

The Noise Reduction circuitry was essentially focused on the CW mode, but it gave a tantalizing view of what DSP Noise Reduction could offer all modes. The DSP offered an automatic notch filter to eliminate heterodynes in the receiver passband – in addition to the manual notch filter. In an oddity of the start-up access menu items (new on the Omni VI and not present on the Omni V) one could hear the results of the noise reduction in any mode during menu setup – but could not access it in modes other than CW in actual operation. Another Ten-Tec misstep?

New features added were several . . .

- A fine Iambic electronic keyer – a return of a significant feature.
- Band Memory Registers for each band with two selections – that is, the last two frequencies selected on any one band were immediately accessed with a return to that band. This included other parameters, such as mode.
- CW Identification of mode when selected. (“C” for CW, “U” for USB, “L” for LSB, “F” for FM, and “R” for RTTY.)
- “Always on” clock display.

The Omni VI kept the dependable PA circuitry developed over the years, by Ten-Tec. It has always been interesting to me to observe the differences in the way the American and the Japanese manufacturers chose to protect the final amplifiers in the PA. The Japanese designed circuitry to watch reflected power (SWR) and fold back current to the power amplifier in proportion to increasing SWR voltage. The American manufacturers monitored current from the power supply and restricted power as the current increased over predetermined values. At the same time, the American manufacturers did use voltage generated by increasing SWR to also fold

back power. What was different was the two methods in combination in the American designs. These were typical of designs from Ten-Tec, Drake, Heathkit, Swan/Cubic, and other smaller firms in the USA. The American system was a bit faster due to the two methods used in combination. Also, it seemed that American designs cause faster foldback of power levels.

Unfortunately, the Omni VI lost the voice transmission monitor that graced its predecessor.

The advances in DSP technology were moving quickly and in 1997, Ten-Tec introduced the Omni VI Plus – an audio DSP driven refresh of the successful Omni VI Design. Outwardly the Omni VI and VI Plus were difficult to distinguish – other than the appearance of the word “Plus” under the “OMNI VI” name on the front panel. The change was also covered by a model number change and obvious markings on the back panel. The true difference between the VI and the VI Plus was all tied into the Firmware – there was only one significant hardware difference. The Omni VI Plus added a second 9 MHz i-f filter position, selected via a front panel soft press button.



Ten-Tec Omni VI+ HF Transceiver⁶

W9MXQ

In a gesture to loyal Omni VI owners, Ten-Tec even offered a three-level conversion service for owners of the VI. This included three levels of update – with all three offering all features of the DSP upgrade that identified the Omni VI Plus. As per documents from Ten-Tec at the time, here are the three upgrade options for the Omni VI owner:

- Option 1 - added the VI Plus DSP chips, stick-on labels for front panel keys that have changed function.
- Option 2 - added the VI Plus DSP chips, new keycaps for front panel keys that have changed function instead of the labels (looks nicer).
- Option 3 - added the VI Plus DSP chips, adds the VI Plus 9 MHz mixer/i-f board with the extra filter slot, included all wiring changes to change functionality to that identical to a VI

Option 1 was user installed, while Options 2 and 3 were factory installed. There was a cost for all three Options and shipping costs on options where a factory return was required.

The more authentic analog nature of the Omni VI has shown over time to be superior to the Omni VI Plus and its expanded DSP features. This is my opinion, mind you, and not necessarily one held by all users. I have owned the Omni VI, and Omni VI Option 1, and an Omni VI Plus and prefer to do as I do today, run the Omni VI (no option level) along with a Timewave DSP-59+ External Audio DSP Filter. Given that the DSP in the VI or the VI Plus are audio level, they are no more integrated into the radio's performance than the external Timewave unit.

The Omni VI, and VI Plus upgraded their readout system from the one used in the Omni V. The Omni V had vacuum fluorescent readouts while the Omni VI and VI Plus changed back to the LED technology readouts of the Corsair series and previous Ten-Tec radios. The change to the more flexible LED readouts allowed for more features to be shown in the readout window in the later transceivers. Specifically, the clock shows continuously when power is applied and other information, such as memory number, can be displayed. For added clarity, more than one color is used for some frequency readout digits – as on the original Corsair models.

DSP Noise Reduction on the Omni VI Plus (and the Omni VI on CW) was so effective that band noise would be practically abolished and clear weak signals would seem to “appear out of nothing” to be perfectly audible. That is an easy marketing statement to disagree with – but it is real, and I can attest to it. While I tend to use the Timewave DSP-59+ with my Omni V, VI, and did so with my Omni VI Plus, there is no denying that overall noise reduction with the Ten-Tec system owes nothing to any competitive transceiver of the time.

There are two more models in this technical group that satisfied a perceived need for general coverage receive. These were not particular popular in numbers but are sought after today. Please note these two pictures:



Ten-Tec Paragon HF Transceiver⁷
Rig-Pix



Ten-Tec Paragon II HF Transceiver⁷
Rig-Pix

The Paragon and Paragon II are based on the Omni V and Omni VI, respectively. The Paragon II had ceased production before the entry of the Omni VI Plus on the market. Their two added features compared to their ham band only stable mates were the AM mode and general coverage of the HF spectrum. In another one of those oddities of Ten-Tec, these transceivers were not designed to operate on AM transmit. Just receive⁸.

Early in this article I referenced a personal view of Ten-Tec history. While it is my own opinion (which in fairness must be said). I feel a tiny bit of a kinship with Ten-Tec as it relates to my early years in ham radio. In the late 1960's I would frequent Central Illinois Hamfests with long-time friend, customer on my paper route when I was in high school, and amateur radio operator, Ted Bailey, W9DYQ (SK). Subsequently I became friends with Ted's son, Bob, W9DYQ (who acquired his father's call after his death). Bob, the current W9DYQ, is a close friend and fellow collector/restorer of Vintage Radios. Bob also proofreads and assists me with these articles. Those outings with Ted included Bob, in later years. Early on, when at a local hamfest, Ted introduced me to Russ Planck, W9RGH, who, along with E. G. Shalkhauser, W9CI, had founded Radio Manufacturing Engineers, Peoria, Illinois, in 1931 or 1932. You perhaps know Radio Manufacturing Engineers as RME. I never met Shalkhauser, who had become a SK before that time. However, I met and talked to Planck many times in those years.

After World War II, Planck and Shalkhauser sold RME to Electro-Voice of Buchanan, Michigan. So, when I knew Russ Planck, he was enjoying retirement from manufacturing radios – although he acted as a consultant to Electro-Voice and likely had some involvement in the last RME/Electro-Voice HF Receivers, the 6900 series. At that time, Al Kahn, K4FW, was running

the Electro-Voice company – and had been one of its founders. In 1968, Al Kahn, after retiring from Electro-Voice, partnered with Jack Burchfield, K4JU, to found Ten-Tec, Inc. In a meeting with both Al and Jack in the late 1970's – as a guest of the publisher of Ham Radio Magazine at the Dayton Hamvention – I presented my comment that they had ties all the way back to Planck and Shalkhauser and RME. I remember that they both laughed. One said to the other, “the secret is out!” So, I rest my case on a perceived connection from RME all the way over the years to Ten-Tec. Many such inter-company connections exist with ham radio – Halligan, Hammarlund, Pierson, Gonsett, and others come to mind⁷.

My Omni VI Transceiver was formerly owned by Roger Zaun, W9UVV (SK), a long-time member of the Ozaukee Radio Club. Roger had previously owned an Omni V before the Omni VI that I now have. Over the years Roger had communicated with Al Kahn, K4FW, at Ten-Tec. Some of that correspondence is part of the documentation package that came with the Omni VI and 961 Power Supply when received. My thanks are extended to Mark Tellier, AB9CD, who was the interface for me securing this fine radio from the estate of Mr. Zaun. From the correspondence I have found, Zaun seems to be a fellow I would have liked to have met.

Special thanks go to Bob, W9DYQ, for his proof reading and our discussions of his father, Ted, and the days with Russ Planck, W9RGH. And, as I always add, I appreciate that you read my articles. Never forget that our close friends are our greatest personal resource in life. I am always open to questions and comments at my email address, W9MXQ@TWC.com.

Notes:

¹ My interpretation of Ten-Tec's history is my own. You can agree or disagree – but it all makes perfect sense to me!! If you have a different view, please, let us discuss it.

² <http://www.tentec.com>

³ This Corsair II station currently is owned by W9DYQ. When it was photographed, it was owned by W9MXQ.

⁴ There are various routines to add limited computer control to the Corsair models – one such source can be seen at the website of K3JLS at <http://www.k3JKL.net/tentec.html>. Therein, K3JLS describes such product in support of most all pre-PLL VFO Ten-Tec radios as well as the Drake TR7, and other similar radios. At least this would allow remote frequency control on any one band.

⁵ N4PY Software (a publisher of radio control and logging software) used to offer a replacement ROM chip for the Omni V Transceiver they referenced as the V.9 Chip. Once installed it added many memory and operational features – including direct frequency entry. This chip was originally designed by Jack Giehl, WB8BFS, of Loveland, Ohio. Jack made similar enhancements for several other early microprocessor-controlled radios (Ten-Tec Paragon, Kenwood TS-940S, etc.).

⁶ With apologies I note that I never took a picture of my Omni VI Plus with the power turned on and the readouts visible. Suffice it to know that it was an identical readout, including colors, to the Omni VI.

⁷ The Paragon, Paragon II, and other Ten-Tec transceivers and the personal names shown are included in some future articles.

⁸ Numerous third-party modifications to allow AM to be transmitted were published. On such third-party modifications of any kind, it must be remembered that the radios were not designed for such operation and any operation could possibly be out of compliance in some performance specification. Be aware.

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DX'ing & Contesting

De Gary Sutcliffe (W9XT)



Welcome to 2021. Hopefully, it will be better than 2020, but so far, it has not started out that way. The thing that affected our lives the most in 2020, of course, was COVID-19. How did it affect our favorite hobby, ham radio?

A huge downside was we could not get together at ORC meetings in person. Hamfests were canceled as well as bigger events such as Hamvention®. Other events morphed. Field Day changed from a large group event to operating from home individually or in very small groups. The ARRL even made a temporary rule change to accommodate more at home stations.

Ham radio turns out to be a great activity while we are locked down. It allows us to communicate with others in the area and around the world. In contesting the number of entries was way up for many contests in 2020. Last year I operated 33 contests compared to 25 the year before. Not all those were serious entries. Some were just playing around for an hour or two.

My logbook had many more entries in 2020, about 15,500 compared to 8,000-10,000 I typically make. One thing that was down was the number of different DX countries I worked. In 2019 I worked 224 different DXCC countries compared to only 192 last year. The main reason for the drop off was that most DXpeditions were either postponed or canceled. Did you make more QSOs last year than usual?

One way we adapted to lock down conditions was to use virtual meetings. The ORC and many other clubs are conducting meetings online with Zoom or other platforms. While not as good as in-person meetings where you can carry on conversations one on one before the meeting and during breaks, it is much better than not meeting at all.

An interesting side effect is that members too far away or otherwise unable to attend in-person meetings have been able to attend. It has been nice to see members who have moved away and have not attended in-person meetings in years.

Other clubs around the country have opened up their meetings to non-members, and I have attended quite a few and enjoyed some really great programs. ORC member Bill, W9MXQ, has given presentations on “mature radios” to clubs worldwide. I am scheduled to give one to a club in Arizona on contesting.

Conventions have opened up. There was one presented by Contest University last May that was free and had some great presentations. Contest University is having another one near the end of the month called the Propagation Summit 2021. As the title suggests, it will cover aspects of radio propagation. It is January 23, starting at 10:00 local time. It is free to attend. Information and a link to registration is <https://www.contestuniversity.com>

There are four presentations. I know or met all of the speakers and expect the presentations to be excellent. Oh yeah, if you are around to the end you might win one of those neat new Icom IC-705 rigs.

One way to stay active is to take part in regular activities. Net participation is one example. Some others can be fun. One is the QRP Fox Hunts. They take place on Tuesday and Thursday evenings. The Tuesday event is on 40M, and the Thursday one is on 80M. Each event has two designated stations as the Foxes, or in their jargon, the "foxii."

Everyone else, the Hounds, have 90 minutes to find the foxii and work them. Or, as they say, collect a pelt. This is all done at QRP (5 watt) power levels. They have an online list of the standing of how many foxii you have worked.

The website is <http://www.qrpfoxhunt.org/> There is no cost, and you don't have to register or anything. Just work one of the foxii, and you will be on the list. I did this for several years, but then I got a new rig that only went down to 10W. I picked up an FT-818 over the summer and decided to do it this year. The FT-818 receiver is nowhere as good as my main rig, so it has been more challenging than before, but I have had a lot of fun. Wisconsin stations are well represented in this. Join in the fun.

State QSO parties happen all the time. Last year a group organized something to encourage operation in them and formed the State QSO Party Challenge and the Worked All QSO Parties (WAQP) awards program. They reported 1.3 million QSOs in the challenge last year.

The idea is that you get on and report your scores for as many State QSO parties as possible. You only need to make a minimum of two QSOs in a QSO party to get credit for it. You can get more information at <http://stateqsoparty.com/>

Speaking of state QSO parties, the Wisconsin QSO Party is Sunday, March 14. Go right now and mark your calendar. We won the club category in the 2020 event. Let's win it again in 2021! More info on the WiQP is at <https://www.warac.org/wqp/wqp.htm> There will be more in next month's column.

The January VHF contest is January 16-18. Of the three ARRL VHF events, this is usually the slowest. It does not have the potential for 6M sporadic E (Es) propagation the June contest has, although there is some possibility. The winter weather reduces the number of rover stations, but if you like VHF, it is worth getting on for it. More information is at <http://www.arrl.org/january-vhf>

The CW and phone NAQPs resume this month. The CW event is on January 9, and the phone version is a week later. Both start at noon local and end at midnight, but you can only work ten hours. Send your name and state. Full rules at [NAQP-Rules.pdf \(ncjweb.com\)](#)

At the end of the month is the CQ WW 160 Meter Contest. It starts at 2200 UTC Friday (4:00 local), January 29, and runs 48 hours. You can only operate for 30 hours. Operating during daylight hours on 160 is not going to be very productive anyway. We send a signal report and our state. DX station will be sending a signal report and CQ zone. Rules are available at www.cq160.com/rules.htm

DXpeditions continue to be on hold due to COVID-19. I am not aware of anything interesting happening this month.

This month's QSL is one of the last ones I received. It is for a QSO with Fernando de Noronha Island. This is an island off the coast of Brazil. The QSO was on 160 Meters and a new DXCC country for me on the band.



The first time I worked the island was about 30 years ago. It was during the ARRL DX CW contest. I tuned across him and was excited to have a chance not just for another multiplier for the contest, but also an ANTO (All Time New One) for DXCC. He came back not only with the contest exchange but also "Hi Gary!"

I just about fell out of my chair! I barely knew the place existed, let alone someone there. It turned out that it was my friend Bill, W9VA, who had gone down there. He was staying at a hotel on the island run by PY0FF.

Well, it seems the pandemic will continue to keep us at home for at least the rest of the winter. Sending some time in front of the radio this month is an excellent way to pass the time.

Vintage Magazine Cover Art

By Pat Volkman, W9JI

In the early decades of radio, there were dozens of specialty magazines dealing with every aspect of radio technology. These were sold at the local magazine stand, which might have been on the street corner or in the drug store. The magazines were displayed side by side and they all competed for readers. Publishers often relied on bold artwork to grab your attention, hoping the cover picture would make you buy their magazine. Many of these covers were works of art in their own right.

I have selected a series of these old magazine covers that represent situations that we will find familiar today. I plan to present one each month, highlighting a different area of technology or an interesting situation.

The first cover is from the Radio News magazine issue of January 1929. The picture is entitled “A Broadcast Engineer’s Christmas” and depicts a situation that many of us are all too familiar with – working on an antenna in the middle of winter in a snowstorm.



“A Broadcast Engineer’s Christmas”–Radio News, January 1929

Ozaukee Radio Club

December 9, 2020 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 7:35 PM, as introductions were recognized when members checked into the meeting, a go-around was not conducted. Pat reminded everyone that dues are due now through the January meeting. Todd KD9QLJ recently got his General Class ticket. Fred W9KEY has erected a 30-foot Al mast at his QTH.

Program:

The program was presented by Gary, N9UUR describing his rooftop antenna tower project. After he upgraded to General Class, and then Extra Class in 2020, he decided to upgrade his antennas with an HF antenna. He described the process of building a clone of the Glen Martin RT424 4 foot quad pod mini-tower. This tower was installed, carrying a Mosley Mini 33 HF beam and a 5-element 6-meter beam. Gary then described the process of getting everything to work, and eventually finding that he could make HF contacts readily with the new system.

Committee Reports:

Tom KC9ONY reports all is good; the 220 system is integrated into the Tuesday night net. A discussion was held concerning having a net control training session.

Gary N9UUR mentions that of the over 100 members, about 51 have renewed (61 including family members). The ARRL holds over \$38,000 in the scholarship program, with \$21,000 still to be transferred. Local funds include \$3,700 and nearly \$13,000 in a money market fund for STEM programs. W9MXQ moved acceptance, W9DHI seconded motion carried.

Ken W9GA has posted the minutes of the November meeting; noted correction of W9DHI name as Gregg. WB9RQR moved, W9MXQ seconded the motion to accept which was then carried.

Tom W9IPR is the current nominations chairman. The slate of candidates for office includes current active officers and board members, with one exception; Gregg W9DHI will step in as the Repeater VP and Tom KC9ONY will step down.

Pat W9JI reminds all to renew, and that the January elections will be via a ZOOM poll. The repeater survey is complete and a report is forthcoming.

OLD Business

There was no old business.

NEW Business:

Ken W9GA mentioned the upcoming awards nominations as being open as of January 2021.

Tom W9IPR discussed the status of the scholarship funds, and urged the formation of a STEM committee to advance that element of the club's scholarship funds usage.

Chuck W9KR mentioned problems with internet connectivity, which has been experienced by many members using the ZOOM app to attend meetings.

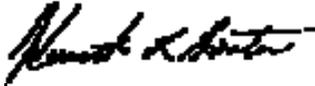
Adjournment:

There were 36 members (unique callsigns) on the ZOOM meeting. Contact Ken W9GA to obtain the list. Gregg W9DHI moved to adjourn, Jim W9QLP seconded the motion, and the motion carried.

The meeting ended at 9:04 PM.

Post meeting: Stan WB9RQR will have several refurbished laptops available for auction soon.

Respectfully submitted,



Kenneth Boston W9GA
Secretary

Upcoming ORC Monthly Meeting Programs

January – Elections

February – Open

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 Volkman W9JI at w9ji@arrl.net to discuss your idea for a program.

ORC Meeting Agenda

February 10, 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: TBA
5. President's Update – Pat Volkmann (W9JI)
6. 1st VP Report – Ben Evans (K9UZ)
7. 2nd 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:

For the foreseeable future, 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 February 10, 2021

7:15-7:30 PM – Check-In

7:30 PM – Meeting Begins