



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

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Volume XXXIII

October 2021

Number 10

## From the President

de Pat Volkmann, W9JI



Saturday October 2 marked the day of Nels Harvey's, WA9JOB (SK) Celebration of Life. The ceremony was held at St. Christopher Episcopal Church. In addition to family and friends, a number of Club members were in attendance to pay their last respects to Nels. For those who could not attend in person, the event was live streamed on YouTube. The priest delivered a warm and personal eulogy, highlighting Nels service to his church and community. 73 Nels, we miss you.

The ORC Fall Swapfest was held on Saturday September 11, 2021. The weather was beautiful, warm and sunny. A very pleasant day to be outdoors. Turnout was good, with 149 tickets sold. When everything was tallied up, all the bills were paid, and the club made some money. For a lot of us, this was the first time we had seen our fellow hams for many months. Hopefully we will have another occasion soon to get together.

Thanks go to Tom Ruhlmann, W9IPR, for organizing another successful Swapfest. Tom was aided by the many Club members who showed up to help with all the tasks that needed to be done. That includes loading up at the barn on Friday afternoon, selling tickets, helping with parking, announcements, refreshments and hauling stuff back to the barn on Saturday afternoon. Thanks to everyone who was involved and helped to make the event a success.

I mentioned last month that I was working on a new shack layout, with more room for the radios and the computer. I've made a number of changes and I am liking the new arrangement. One change that I particularly like is a swivel arm to hold the monitor. I'm now able to position the monitor at a comfortable height and viewing angle. I also made a coax patch panel to replace a burned-up switch. While not quite as convenient as a switch, the patch panel handles full power without any worries.

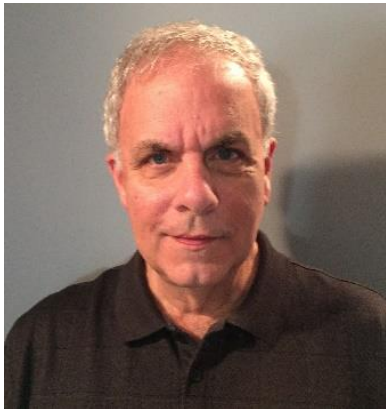


See you at the meeting.  
Pat Volkmann, W9JI

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## A Message from the Editor

de Bill Shadid, W9MXQ



There are some new items in this edition of the Ozaukee Radio Club Newsletter that I am very excited to report. For Newsletter structure, I have moved to include page numbers – if for no other reason than to make it easier for this short Editor’s Note to reference articles and where to find them. For a review, read on:

I draw your attention to Page 4 where you will see a short article from Nesya Graupe, KD9JNT. Nesya, as reported by ORC Scholarship Chairperson, Tom Ruhlmann, W9IPR, is the winner of the **2021 ORC Scholarship Award**. This Award is administered for the Ozaukee Radio Club by the American Radio Relay League (ARRL). In her writeup, Nesya, KD9JNT, sends us all a message about the Award, her school activities at University of Wisconsin Madison, and her work in amateur radio. Congratulations from all of us to Nesya!

Look at the monthly front-page article, **From the President**. On Page 1, Pat Volkmann, W9JI, opens expressing our sadness at the loss of fellow member, Nels Harvey, WA9JOB. Pat also talks about our Fall Swapfest and his ongoing shack improvements. He returns on Page 25 with his Vintage Radio Magazine Cover Art column. And, again on Page 27 with a note on upcoming programs – and a bit of information on how to prepare and present a program at an Ozaukee Radio Club meeting.

On Page 5, please see an excellent report on the **2021 Fall Swapfest**. This is presented to us by the Fall Swapfest Chairperson, Tom Ruhlmann, W9IPR. It ends with a shot of Tom relaxing and dreaming about the 2022 Fall Swapfest. Good work, Tom!

Starting on Page 7, please welcome Don Zank, AA9WP, OZARES Emergency Coordinator, for the first of his monthly **OZARES: Ozaukee Amateur Radio Emergency Services** columns. Glad to have you with us, Don. You are covering a very important part of our responsibility as Amateur Radio licensees.

On Page 9, see the always excellent **Computer Corner** column, written by Stan Kaplan, WB9RQR. This month, in his 283<sup>rd</sup> consecutive article, Stan writes about, **A Place for Your Old Computer**. This is a very important topic as we progress to a new computer.

Beginning on Page 11, your Editor, Bill Shadid, W9MXQ, in his monthly **Vintage Amateur Radio** column, presents the first of several articles on the Novice License in the United States. This was a unique time with many new pieces of equipment to attract an influx of new hams bent on learning Amateur Radio. Did you send an entry with information on your Novice station? If you did, watch for your story – included in the article.

Beginning on Page 22 is Gary Sutcliffe, W9XT, and his monthly **On the Air!** column. Gary is trying some new presentation formats for his column as he talks about the coming Fall Contest Season. Check out his column and its new design. I like the easy access to information as shown by Gary this month and very likely going forward.

Check Page 24 for a short bit on the upcoming **Boy Scouts Jamboree on the Air (JOTA) 2021**. Take a look and see if that is something you might want to do.

Ozaukee Radio Club Secretary, Ken Boston, W9GA, presents the **Ozaukee Radio Club September 8, 2021, Meeting Minutes**, Page 26. Those are presented for your review and for any comment during the upcoming September 13, 2021, club meeting – via Zoom.

Speaking of the September 13, 2021, meeting, you may check the **ORC Meeting Agenda** on Page 28.

On to the Newsletter . . .

# In 2021 we have an ORC Scholarship winner from Ozaukee County!

(And she is an Ozaukee Radio Club Member!)



My name is Nesya Graupe, KD9JNT. I am from Mequon, Wisconsin and graduated from Homestead High School in 2019. Now I am at the University of Wisconsin Madison where I study Biomedical Engineering and plan to graduate in the class of 2023.

I started participating in amateur radio my junior year of high school. I studied for my license with my father and brother on a whim, and since then I have come to appreciate the great community and educational experiences that amateur radio has to offer. Learning about circuits and electricity during high school was one of the reasons I was inspired to study engineering.

At university I am active with the UW Madison chapter of Engineers Without Borders where I serve as outreach coordinator and organize science activities for the community. In addition, I am part of a research lab where I am creating models of wireless resonant circuits that use RF heating to stimulate neurons in the brain. Once I graduate, I hope to attend medical school. I have learned a lot from participating in amateur radio, and I hope to become even more active in the future!

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# The 2021 ORC Fall Swapfest; it was fun and profitable!

Tom Ruhlmann, W9IPR



If you were there you know what I mean. We had great weather and participation. There was a significant increase in the number of vendors and vehicles parked. The word got out and HAMS from near and far were there. Setup started at 6AM and there was a line of vendors waiting at the gate.

We had HAMS from Grafton, Cedarburg, Port Washington, and Milwaukee as you would expect. However, we also had HAMS from Oshkosh, Waukesha, Neenah, Sturgeon Bay, Manitowoc, Green Bay, Hurley, Eagle, Wautoma, and Beloit all in Wisconsin. They even came from Lith and Hoffman Estates in IL and Kingsford Michigan. It was a great time with all the visiting, selling, and browsing for treasures.



We were pleased that our ARRL representatives joined us and for the gift certificates they provided for door prizes. We also received door prizes from Easy Way Ham Books (K4IA).

The economics were good with approximately \$325 going to the ORC treasury and sales of \$775 by the Scholarship Program. Note that there were no table sales this year since it was all outside.

While the scholarship tables had a variety of “good stuff” Many of our vendors had some “really good stuff.”



Yes, we had several of our members as vendors with Ken Boston and Vic Shier reducing their inventory of “good stuff” as Gary Sutcliffe was offering some of his new products from **Unified Microsystems**.

My special thanks to those who volunteered to help Friday evening and Saturday and made the event a success. These included the following members: Jim Albrinck, Jeanne Bargholz, Gary Bargholz, Bill Bischoff, Ken Boston, Bill Church, Cindy Douglas, Ben Evans, Dave Flowers, Bill Greaves, Mike Harrington, Richard and Catherine Holt, Loren Jentz, Greg Lengling, Tom Nawrot, Ed Rate, Mike Schultz, Fred Schwierske, Vic Shier, John Strachota, Gary Sutcliffe, Tom Trethewey, Pat Volkmann, and Don Zank.

Again, thanks to all who made it another success. Now it's time to take a break and start planning for 2022.

*(Editor's Note: And thanks to Tom Ruhlmann, W9IPR, for his work coordinating the Swapfest!!)*



# OZARES: Ozaukee Amateur Radio Emergency Services

de: Don Zank, AA9WP, OZARES Emergency Coordinator



Hello from Ozaukee County's other radio club, the Ozaukee Amateur Radio Emergency Services organization otherwise known as OZARES. Our nineteen-member group operates under the auspices of Ozaukee Emergency Management and Scott Ziegler, KC9IIZ, Director Ozaukee County Emergency Management.

OZARES operates two Yaesu Fusion repeaters available at 147.330, 127.3 pl, positive offset and at 443.525, 114.8 pl, positive offset. The station, which operates under the call sign WI9OZ, is located at the Justice Center in Port Washington. There is a WinLINK connection available, WI9OZ-10, at 145.610 Mhz.

OZARES maintains a google group at: <https://groups.io/g/ozares>. This site has a list of frequencies and a membership application form. Our Facebook site is <https://www.facebook.com/OZARES>.

We hold two monthly practice and training nets on the first and second Thursday of the month, and on the few months that have five Thursdays, another practice net is held on the fourth Thursday. All of our nets take place at 8 pm on the 147.330 repeater. The third Thursday is our monthly meeting night at 7 pm that is presently conducted either by Teams or Zoom virtual meetings. The last Thursday of the month our members participate in the statewide VHF net held on the WECOMM linked VHF network <https://www.wecomm.org/>.

Amateur Radio Emergency Services®(ARES) is a program from the Amateur Radio Relay League (ARRL). ARES consists of amateur radio operators who voluntarily contribute their time, equipment, and skills to serve their communities, locally and nationally. Every amateur radio operator is eligible to participate with ARES regardless of ARRL membership.

OZARES is the Ozaukee County ARES organization in the Southeast District of Wisconsin. The statewide organization, Wisconsin ARES-RACES, provides the leadership, training, and conference for Wisconsin ARES groups. More information on Wisconsin ARES-RACES can be found at <http://wi-aresraces.org/>. Other local groups include Milwaukee/Waukesha ARES (<https://milwares.org>), Racine/Kenosha (<http://rkares.org>), Jefferson County (<https://www.facebook.com/JefCares-Jefferson-County-Wisconsin-ARES-RACES>).

We would like to thank Pat, W9JI, and Bill, W9MXQ, for the invitation to include information and news regarding OZARES in the ORC newsletter. It seems appropriate to be writing this article in September, 20 years after 9-11, for the October issue. After the communication problems of 9-11 new procedures were developed for first responders, emergency government and other non-governmental agencies. The National Incident Management System, NIMS, was developed by the Secretary of Homeland Security under President Bush's direction.

There are five components to NIMS and all impact the emergency amateur radio operator when working with government organizations and non-governmental organizations. The components include Preparedness, Resource Management, Ongoing Management and Maintenance, Communications and Information Management, and Command and Management. For the emergency amateur radio operator to be effective he/she must be trained in the procedures provided in the Incident Command System (ICS) and be prepared to communicate in an efficient and effective manner.

The training, covering the Incident and Command System, ICS, and NIMS is available from FEMA. The on-line courses required for ARES membership include IS-100b Introduction to Incident Command System, IS-200b ICS for Single Resources and Initial Action Incidents, IS-700a National Incident Management System (NIMS) An Introduction, and IS-800b National Response Framework, An Introduction. So, it takes an investment of just not equipment but of time and effort to learn and pass the exams of the FEMA courses to be an emergency amateur radio operator. Why? So, our served agencies, federal, state, county and city governments and private agencies can trust us as certified participants who understand procedures and responsibilities.

In Wisconsin we have a good news/bad news situation. The good news is that we are not faced with many of the natural disasters such as hurricanes and earthquakes that other regions of our country face. We do get a few tornadoes and severe storms with power outages but normally, unlike this past summer, major power and communication outages are rare. The bad news is that opportunities to put our training and skills into play are very infrequent. Apart from providing communication support for a run/walk or other community activity, we are dependent upon exercises to keep skills up to date.

A great opportunity to test our preparedness and abilities occurs on the first Saturday in October. The ARRL sponsors the nationwide Simulated Emergency Test, or S.E.T. Nationally, and in parts of Wisconsin, the S.E.T. will be on the air on Saturday, October 2 with a local operating time of 9 am to 12 noon, approximately.

The ARES groups in the Southeast District will be doing a combined S.E.T. on October 16 between 9 am and noon. District ARES groups, including OZARES, will test communication links between local Emergency Operations Centers and other supported agencies including hospitals and public health operations. Operations will include vhf and hf communication links and the modes of SSB, FM, and Digital including WINLINK and possibly Narrow Band Emergency Messaging Software (NBEMS) (<http://www.arl.org/nbems>). The abilities of the ARES operators to pass messages, re-



ceiving and sending, and handling unforeseen requests and problems will be tested in the exercise.

The S.E.T. is open to ALL amateur radio operators. You do not need to be affiliated with the ARRL or ARES to join in the exercise. Please join in the fun!

Skip Sharpe has created a nice training bulletin, W9REL, Wisconsin ARES-RACE Assistant Emergency Coordinator (AEC) for Training and is available on YouTube. Search on YouTube for *Training Bulletin #16*.

If you are interested in joining or have more questions about OZARES please feel free to contact me at [aa9wp@arrl.net](mailto:aa9wp@arrl.net).

Future articles will cover some of the history of OZARES, how we work with Ozaukee Emergency Government, the ARES field structure, and procedures of the Incident Command System.

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## THE COMPUTER CORNER

### No. 283: A PLACE FOR YOUR OLD COMPUTER

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

[wb9rqr@gmail.com](mailto:wb9rqr@gmail.com)

I need your spare units to rebuild them and either give them away or auction them online or at Ozaukee Radio Club meetings. Proceeds are shared between OZARES and the ORC Scholarship Fund, both worthy places to donate the funds.

How do I rebuild them? First (and most important to the donor), I wipe the hard drives of all partitions and data, so that the drive reverts to the same condition it was in when it left the hard drive factory (except for ensuing wear). When finished, no one (even including unnamed federal government data laboratories), can restore any data on that drive.

How? I use a software program that changes the first bit on the drive to 1, then 0, regardless of what it was before starting. Then it does the second bit, and third – up to the 8<sup>th</sup>, and those 8 then represent the first byte on the drive. The program then continues with the next byte, and so on, to the end of the drive. In the case of a terabyte hard drive, this means one trillion bytes or 1024 gigabytes or 1,099,511,627,776 bytes (8 times that for the number of bits). Since it changes each bit to a 1 and then a zero, that means double the number of actual changes. Then, when all done with the last bit on the drive, it goes back to the position of the first bit at the beginning of the hard drive platter and starts the whole process again, until the drive has been completely done again. Then, it does it a third time. Yes, this takes a lot of time. I usually run it overnight or into the next day.

That more than takes care of any old data on the drive, including magnetic bleeds to the left or right of the normal tracks written by the write heads. If the drive survives that whole process without errors (all are reported to me), it can be reused. If it does not survive, I disassemble the hard drive, separating the ferrous metals and aluminum into their respective recycle bins. I save the magnets. The point is, your data is unrecoverable.

Then on to the remainder of the computer. Everything is physically cleaned – all dust bunnies and dirt are removed from the interior and exterior of the unit, along with all stickers. Peripherals are checked and determined to be in working order (DVD drives, USB ports, and so on). If there is room and my stock has appropriate memory sticks, I add them. Then, the drive is partitioned, and an operating system and other software is added. Currently, I add Linux Mint Cinnamon version 20.2 (nicknamed “Uma” after a Hindu goddess, as mentioned in my last article). This version of Linux also includes Libre Office, a Microsoft Office-compatible version of Word, Excel, Access, and PowerPoint plus math formula and drawing software. There are actually thousands of additional programs (ham programs, too) for new owner may download and install, including programs to run Windows programs within Linux, or to install Windows itself within Linux.

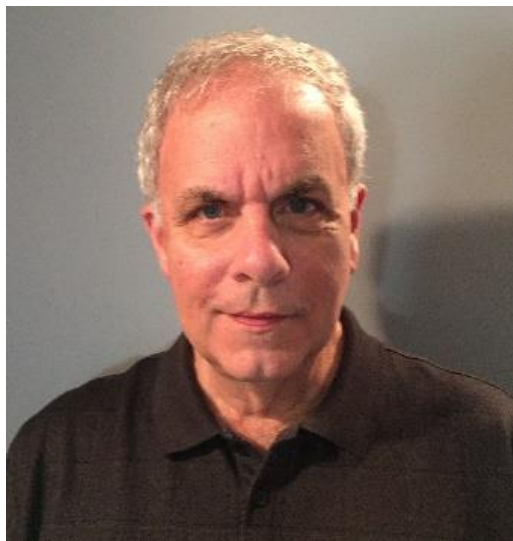
The result is that your old computer will have a new, useful life. On the other hand, if it really is too old (just a 32-bit machine), or the motherboard is not working properly, I separate the metals, circuit boards, batteries, etc., and take them to a commercial recycling center. Any proceeds are donated by that center to a local school. Recyclable plastics go in my household recycling bin.

So how does all this happen? My physical and email addresses are on the header of this article. Drop off your laptop or desktop (keyboards, mice, cables and other peripherals are OK, too, but only modern, working monitors – no CRTs). A sticker with your name and call would be nice on each major piece. Email me first if you want to let me know stuff is coming, but this is not absolutely needed. Just drop off by my front door. Do your bit (or byte) for the ham community and the environment. Happy Computing!

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# Vintage Amateur Radio

de Bill Shadid, W9MXQ



If you were licensed in the period beginning in 1951 up until 1974 and held a Novice License (in the United States) during that period, you are the subject of this article. In 1951, the Federal Communications Commission introduced three new licenses. Those included the Novice, Extra, and Technician Class. These new classes joined the existing Class A (name changed to Advanced), General, and Conditional Class licenses.

While much thought and preliminary work went into this change, we will not cover that process here. This article will focus on the Novice Class License and specifically the equipment used by holders of that unique license. And, that license

class remains today with nearly 7,000 Novice license holders out of a total of nearly 780,000 licensees in the United States.

Up until the time of the new license classes, amateur operators in the United States could use crystal or VFO (Variable Frequency Oscillator) control of their transmitters. This was their choice based on their perceived need for frequency accuracy and stability.

For the short-wave bands, Novice license holders were restricted to CW operation and were allowed an input power to the final amplifier of their transmitter of seventy-five watts<sup>1</sup>. This was compared to 1,000 watts allowed to General, Advanced, and Extra class licensees of the time. Here is a complete listing of Novice Class Operating Privileges<sup>1</sup>:

Mode: Telegraphy (CW)

- 80 Meters – 3700 to 3750 kHz (specified as “kc” back then) (“kc” = kilocycles)
- 40 Meters – 7150 to 7200 kHz
- 15 Meters – 21100 to 21250 kHz
- 2 Meters – 145.0 to 147.0 MHz (specified as “Mc” back then) (“Mc” = Megacycles)

Mode: Voice (AM)

- 2 Meters – 145.0 to 147.0 MHz

Note that on 2 Meters that CW and AM privileges were in the same range.

The Novice license required no prior experience in ham radio – and it had a hard and fast rule that the license was for one year and was not renewable. The non-renewable

rule was hard and fast – there was no provision for letting it expire and then taking the exam and gaining the license again after a period of time. One and done!!

License call letters were, for the most part, predictors of the call letters of one's post Novice future as a Technician, General, Advanced, or Amateur Extra license class. An example is my friend, Gary Drasch, K9DJT. When Gary was a Novice, he was KN9DJT, and he was reasonably certain that when he took his next class of license his call letters would simply drop the "N." In case you have not guessed, the "N" stood for "Novice." (See more about K9DJT in the station pictures at the end of this article.

The manufacturers stepped into the game of supplying this new class of amateur radio operator – the Novice – by marketing a wide variety of equipment that was suited to the operating legalities presented by the United States Federal Communications Commission (the FCC). Some suited only the operations of a Novice, but some also were of a higher order and would suit the amateur after he upgraded.

One such setup was from National Radio Institute, of Washington, DC, a supplier of mail order electronic educational programs – including a set of lessons on becoming a ham radio operator.



**Conar Model 500 Receiver (Left) and Model 400 Transmitter (Left)**  
Sold by National Radio Institute, Washington DC, in the 1960's

This advertisement, appearing in Electronics and Amateur Radio Specific magazines in the 1960's was a mainstay and something I memorized back in those days. The ad

went on (from what is shown here) to describe the Model 500 Receiver as being available in kit form for \$37.50 and assembled for \$56.50. The model 400 Transmitter was available in kit form for \$32.50 and assembled for \$46.50. As an enticement, National Radio Institute offered a special \$64.00 package that included the Model 500 and 400 kits plus the ARRL Radio Amateur's Handbook, and the ARRL Radio Amateur's License Manual. These radios only operated on 80, 40, and 15 meters – totally in keeping with the Novice class license.

The Model 500 Receiver touted its ability to tune not only CW but also AM and SSB signals as well. The Model 400 Transmitter advertised sending CW (only) at a power input level of twenty-five watts. These little units (10.5" x 7.5" x 6.5") are still frequently seen at Hamfests to this day.

For a little more money, and certainly a little more style, and with the ability to send AM signals after upgrade was the Novice offering from the Heathkit, Benton Harbor, Michigan.



**Heathkit HR-10 Receiver**

**Heathkit DX-60 Transmitter**

Picture Reference from 1964: Note 1

These were kits only – who could forget Heathkit? The HR-10 Receiver sold for \$79.95 plus another \$8.95 for the HRA-10-1 Crystal Calibrator Kit. The DX-60 Transmitter also sold for \$79.95. But the radios both covered the HF bands of 80 through 10 meters. The transmitter had a setting for seventy-five watts input for the novice – but could attain ninety watts for more advanced licensees. The DX-60 Transmitter could also run sixty watts input on AM after the operator obtained his/her General Class license. And there was an accessory VFO kit for the DX-60, the Heathkit HG-10 for \$34.85 more that offered crystal free transmitter tuning for the General class licensee. The DX-60 was so

popular that to this day there is an ongoing weekly “DX-60 AM Net” for these transmitters<sup>3</sup>.

Not to be outdone was the Hallicrafters Company, of Chicago. Those that know me know that easily Hallicrafters is my favorite vintage radio manufacturer. I love them all, but Hallicrafters always holds a special place for me.



**Hallicrafters SX-140 Receiver**

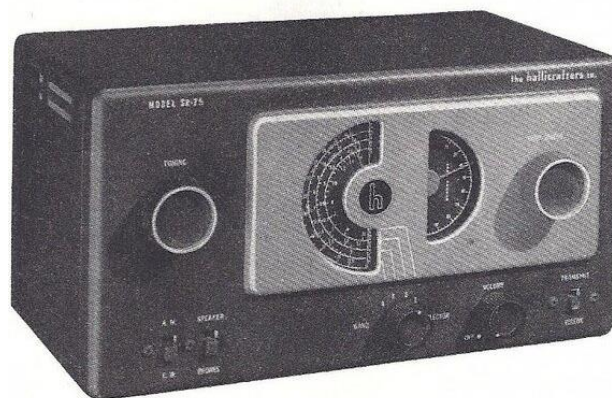


**Hallicrafters HT-40 Transmitter**

1961 Price Lists from the Hallicrafters Company

These radios were optionally offered as kits (Hallicrafters used the term, “Halli-Kits” for their kit products). Fully assembled and tested prices were \$109.95 for the SX-140 Receiver and \$99.95 for the HT-40 Transmitter. Hallicrafters also offered a VFO for use with the HT-40 after the operator obtained his/her General License. That was the HA-5 and is very popular to this day as one of the best examples of a stable running VFO on the market at the time.

Before the SX-140 and HT-40 pair, Hallicrafters had another contender in a low power adaptation of their very popular S-38 Series Receiver. Note here this ten-watt output (CW only) receiver/transmitter:



**Hallicrafters SR-75 Receiver/Transmitter**

RigPix Database

The SR-75 came out in 1960 or 1961 and was in production for a very short time. The Transmitter shared no circuitry with the Receiver, so it was not really a “Transceiver” in the way we describe that kind of product, today. The transmitter and its tuning were ac-

cessed from the rear panel. It was a single tube addition to the base S-38 receiver. It could be run in transmit on any of the 80 through 10-meter bands of the day. There was no provision for modulation.

Back in the 1960's, it was not at all uncommon to have a receiver that was from one manufacturer and a transmitter from another. Also, at that time it was common to see a Novice (or other class) licensee using a commercial receiver but a home brew transmitter.

To the other players in this market, check below these popular transmitters and receivers of the time. These radios were not designed to necessarily operate with a matched unit from the same company.

First, let us look at several commercial transmitters that targeted the Novice licensee:



**Ameco AC-1**



**Ameco TX-86**



**Globe Scout 680**



**Eico 720**



**Eico 723**



**Johnson Viking Adventurer**



**Johnson Viking Ranger**



**Knight-Kit T-50**



**Knight-Kit T-60**

Many new Novice hams used a rather interesting series of products from Heathkit that amounted to early Receiver/Transmitter packages that progressively improved over time and model. Only one of these arrived during the time period of this article, however. That was the rather cult-like radio, the HW-16. Take a look at it here:



**Heathkit HW-16 Receiver/Transmitter**

Heathkit Product Catalog

The HW-16 was a kit built, mostly vacuum tube radio operating only on the Novice bands of 80, 40, and 15-meter bands. And, on those bands, the coverage was only on the lower 250 kHz. Too bad, too, because this radio was worthy of operating by all license classes with its excellent receiver and transmitter performance.

Many companies made receivers dedicated to the Novice operator – more than the few shown in this article. Those will be covered in the next part of what will be a series on the Novice license and the equipment made in support of the licensees. Stay tuned for some future articles that cover experiences of owning only a couple of crystals and no way to move in the process of working other Novice operators who were blessed with



the same transmitter frequency limitations as you. And, much more to come on the hardware. Before moving to a look at some Novice shack layouts, I think it might be important to look at a few crystals – the main stay of frequency control for the Novice operator:



**Typical Crystals used by Novice (and other) Class Licensees**  
(Note that these are not necessarily ham radio band crystals!)

W9MXQ Photo

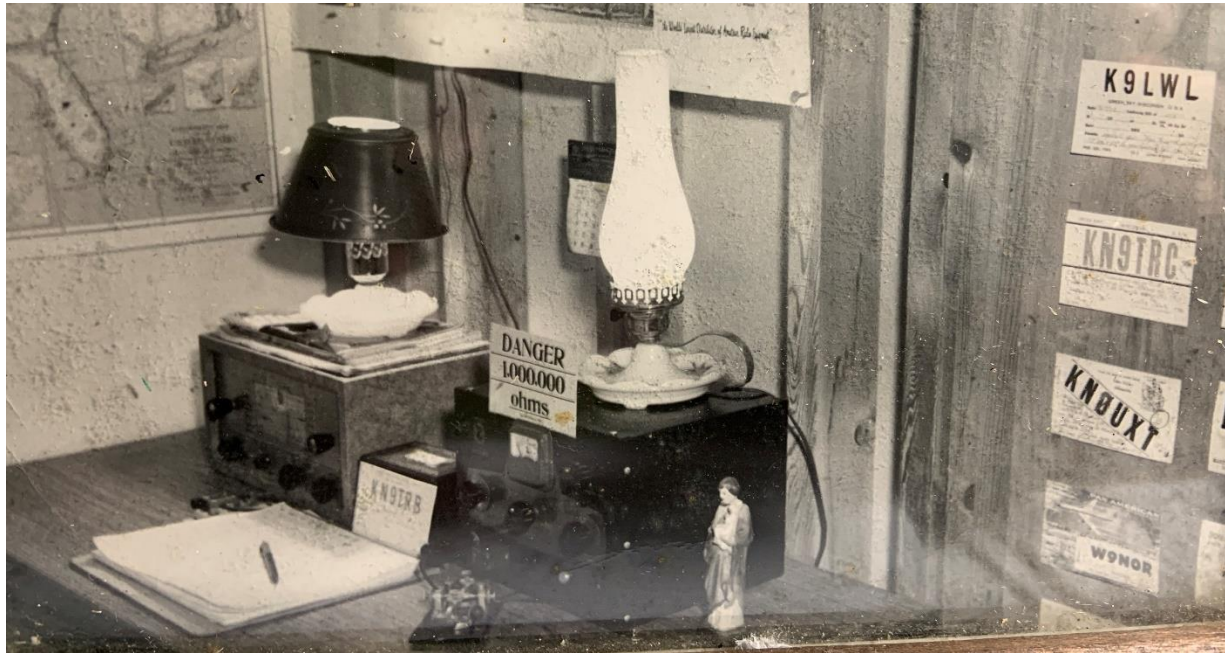
For now, we will look at some example Novice stations from people you may know, people I have known in ham radio over the years, and others who are readers of this column:



**Novice Station KN9DJT, Gary Drasch, 1960 – Now K9DJT**

See the Globe Chief Transmitter (CW only), the Hallicrafters SX-110 Receiver, the Hallicrafters R-48 Speaker and that Vibroplex "Bug" Key. Photo is from 1960, when Gary received his Novice License.

K9DJT



**Novice Station KN9TRB, Paul Schumacher, 1958 – Now KD9FM**  
 See the Heathkit AR-3 Receiver and E. F. Johnson Adventurer Transmitter (CW only). Also see the straight key with the shorting bar.  
 Photo is from 1958, when Paul received his Novice License.

**KD9FM**



**Novice Station WN9NZH, Don Zank – Now AA9WP**  
 See the Heathkit HW-16 (CW only).  
 Don added a Heath HG-10 VFO when he received his General License, N9FGS.  
 Photo is from the time when Paul received his Novice License.

**AA9WP**



**Novice Station WN9FRG, Gary Sutcliffe, in 1970 – Now W9XT**  
 Drake 2-C Receiver and a Heathkit DX-60B Transmitter

These are internet file photos – no personal pictures could be found. But Gary’s original Novice Drake 2-C Receiver is currently being brought back to life.

Internet – Photographer Unknown



**Novice Station KN10FU, Fred LeMere, in 1961 – Now KD9IGO**  
 Hallicrafters S-38D Receiver and a Heathkit DX-20 Transmitter

These are internet file photos – no personal pictures could be found.

Internet – Photographer Unknown



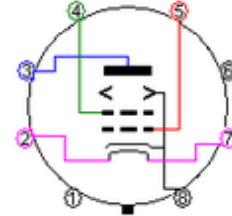
**Novice Station WN9JIC, Pat Volkmann – Now W9JI**  
 Heathkit HW-16 Transceiver (CW only)

These is an internet file photo – no personal picture could be found.

Internet – Photographer Unknown



Single 6L6 Tube, Crystal Controlled CW Transmitter as noted below.



**Novice Station WN9FIY, Bob Bailey, in 1970 – Now W9DYQ**  
 Military Surplus BC-348-P Receiver and Home Brew 6L6 Transmitter.  
 The 6L6 Transmitter was a modified circuit from  
 the 1955 ARRL Radio Amateur's Handbook.  
 Bob refurbished the receiver and built the transmitter for his Novice station.  
**W9DYQ Photo**



**Novice Station WN9BJU, Gary Frankeberger – Now WA9BJU**  
 Hammarlund HQ-100 Receiver and a Heathkit DX-20 Transmitter.  
 These are internet file photos – no personal pictures could be found.  
**Internet – Photographer Unknown**



**Novice Station of Mark Gilger, WN8TJJ, in 1966 – Now WBØIQK**

Knight-Kit R-100A Receiver and Knight-Kit T-60 Transmitter

(See the Crystal – plugged in, just below the meter on the T-60 Transmitter)

These are internet file photos – no personal pictures could be found.

Internet – Photographer Unknown

Stay tuned to these pages for subsequent installments. This is an evolving story with many more equipment stories and hopefully more people we know who were involved in this first phase of the Novice License. Some stations shown in this article have further stories to document their Novice experience – W9JI (ex-WN9JIC) and W9DYQ (ex-WN9FIY) to name two. After that we move into the phase of Novice License that allowed 250 watts of RF power and VFO control of the transmitter. For many, the Novice license was a great adventure with training for radio technique not to have been imagined at the time. Those of us that bypassed the Novice license – I started with my General – can never really match what they learned.

A special thanks go to Bob, W9DYQ, for his proof reading. I appreciate that you read my articles. Remember that I am open to questions and comments at my email address, [W9MXQ@TWC.com](mailto:W9MXQ@TWC.com).

**Notes:**

<sup>1</sup> Reference is to the American Radio Relay League (ARRL) “*Radio Amateur’s License Manual*,” 1964 Edition.

<sup>2</sup> Reference <https://dx-60.net> – you do not need a Heathkit DX-60 Transmitter to check in, but AM is the preferred mode of operation.

© W9MXQ

# On The Air!

de Gary Sutcliffe, W9XT



In late spring and early summer, I covered 6-meter activity. A challenging award for the band is the Fred Fish Memorial Award. As I said before, you needed to work each of the 488 different grid squares that include land in the continental USA. ORC members Ken, W9GA, Gary, K9DJT, and I have been chasing this one.

It is difficult not just because of the total number of grids, but some are sparsely populated and maybe only include a small amount of land. There are some that most people can't get permission to operate from, like a military base off the coast of California. Last

summer, a government contractor was there for several weeks and made contacts during his off hours. Maybe next year.

I have been looking at getting back into satellites. I found there is a satellite award for working all 488 continental US grid squares. Sponsored by AMSAT, it is called the GridMaster Award. Like the FFMA award, very few hams have made the grade. <https://www.amsat.org/gridmaster>

October is an interesting month for the low bands. Daylight savings time lasts way too long into the fall, in my opinion, but between now and when we switch back to standard time, sunrise is pretty late. Sunrise and sunset are excellent times for the low bands to catch the gray line openings. You don't have to set your alarm clocks so early to catch the sunrise openings.

Another band that is getting fun again is 12 meters. There have been some nice openings to Europe in the morning. I know that Fred, W9KEY, and Gary, K9DJT, have picked up a lot of new band countries on this band. It has to be four to five years since 12 has been this good.

There is a new format change to this column. In the past, I would give my picks for upcoming contests and DXpeditions with the dates, times, etc., information, and comments embedded in a paragraph or two. I am changing it to show my picks in a table format. The tables will show the basic info in a more useful form. There are, of course, many more contests and DXpeditions every month, but I will be showing the bigger and most interesting ones. I will continue to comment on some of them.

W9XT's contest picks for October and early November 2021					
Name	Start	Length	Bands	Mode	Link
CQWW	0000Z 30 Oct	48 Hours	160, HF	SSB	<a href="https://www.cqww.com/">https://www.cqww.com/</a>
ARRL Sweepstakes	2100Z 6 Nov	30, work 24	160, HF	CW	<a href="http://www.arrl.org/sweepstakes">http://www.arrl.org/sweepstakes</a>

Times in UTC. Subtract 5 hours from UTC to get local (CDT). Watch for day changes  
HF = 80, 40, 20, 15, 10 Meters

Contest Hell Month starts the last weekend of October with the CQWW phone contest. There is a major contest from the end of October through mid-December, every weekend except for the second weekend of November. CQWW phone is probably the most popular contest of the year. It is a DX contest where everyone can work everyone else. That brings a lot of stations out of the woodwork since they hope to pick up new countries for their DXCC and other DX awards.

I have not spent a lot of time on this one in the last 4-5 years. At the bottom of the sunspot cycle, DX phone contests are tough from this part of the world. All the activity is crammed on 20 meters and below. Twenty is so crowded it is just about impossible for all but the largest mid-western stations to get a frequency. The lower bands are always tough on phone.

But the new sunspot cycle is rising faster than expected. The sunspots are not always there, but we get some interesting periods with increasing regularity. Hopefully, we will hit a hot stretch for the contest and get some good openings on 15 meters.

The following weekend is the ARRL Sweepstakes Contest, CW. The two Sweepstakes are probably the most popular domestic contests. The exchange makes this contest challenging since it is very long compared to most contests. Check out the link to get more information on the contest and your exchange if you have not operated this one.

W9XT's DXpedition picks for October and early November 2021					
QTH	Dates	Call	Bands	Mode	Link/notes
Sao Tome	Oct 2-16	S9OK	160-6	C/S/D	<a href="https://www.cdxp.cz/">https://www.cdxp.cz/</a>
Guinea Bissau	Oct 9-22	J5T/JT5HKT	160-10	C/S/D	JT5HKT is FT8 call sign
Kingdom of Eswatini	Oct 7-21	3DA0RU	160-6	C/S/D	<a href="https://3da0.ru/en/">https://3da0.ru/en/</a>
Austral Isl.	Oct 16-24	F0/W6GJ	6	D (EME)	<a href="http://www.bigskyspaces.com/w7gj/Austral%20Islands%202020.htm">http://www.bigskyspaces.com/w7gj/Austral%20Islands%202020.htm</a>
Marquesas Isl.	Oct 27 – Nov 7	TX7MB	6	D (EME)	<a href="http://www.bigskyspaces.com/w7gj/Marquesas%202020.htm">http://www.bigskyspaces.com/w7gj/Marquesas%202020.htm</a>
Galapagos	Oct 26 - Nov 7	HD8R	160-6	C/S/D	<a href="http://www.dxfriends.com/hd8r/">http://www.dxfriends.com/hd8r/</a>

Modes: C = CW, S = SSB, D = Digital (may include RTTY)

DXpeditions are finally starting to happen again after most of them were canceled for the better part of two years due to COVID.

The DXpeditions to the Austral and Marquesas Islands will probably only be worked by ORC member Ken, W9GA. That is because they are 6-meter EME operations. EME is difficult, but 6M really requires some big setups. Amazingly, people go to the trouble and expense of going to exotic places for such a narrow audience.

These are being put on by Lance, W7GJ, who is *the* guru for 6-meter EME, and pretty much anything regarding the band. Lance has been going out to DX countries for several years. Often the country has never been on the air for 6-meter EME. The ones coming up were planned for 2020 but got postponed until now.

Not familiar with the Kingdom of Eswatini? It is one of those land-locked homelands inside South Africa. It was formally known as Swaziland.

It is good to see the Galapagos back on the air. For many years HC8 was almost a sure contact in the big contests. A ham with an excellent station lived there, and frequently there were big multi-op efforts in contests. I don't remember what happened to him, but for the last 15 years or so, operation from the Galapagos has been rare in contests, and generally on the air at all. There were some small operations in 2017 and 2019, but the last big one was in 2014. There probably won't be propagation, but this will be the first time 6-meter digital will be used from the islands.

A lot of contesters travel to semi-rare locations to operate the CQWW contest. Usually, they get there several days in advance to get things set up for the contest. They are very active on the air the days before the contest. This is often an excellent time to catch them. Often they will be on the WARC bands before and after the contest if you need them.

So, the countdown is on for the start of the fall contest and DX season and the last few weeks to get your antennas ready before the cold weather arrives. Things are shaping up to be one of the best in several years!

Tell me what you think about the new charting included in the article.

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## Boy Scouts – Jamboree on the Air – 2021

de: Bill Shadid, W9MXQ – via Tom Trethewey, KC9ONY

In a note from Tom Trethewey, KC9ONY, I received information on the **Scouting - Jamboree on the Air (JOTA)** that is coming up the third full weekend in October. This came to me too late to research for details but please contact Tom ([KC9ONY@arrl.net](mailto:KC9ONY@arrl.net)) if you have questions about how to become involved. Tom has some possible contact information that I could not verify in time for this Newsletter edition.

Tom also reported that MRAC (Milwaukee Radio Amateur's Club) is participating at Oh-Da-Ko-Ta Camp, 3363 Dyer Lake Road, Burlington, WI. MRAC is looking for volunteers to assist in the event. You may contact them via this link:

<https://mailchi.mp/95d293ae81cd/swapfest2021-5659672?e=a0de4dcde6>

I received this link also in my work with Wisconsin Amateur Radio Club.

Ozaukee Radio Club and its members have some history in working with this event. It would be nice if that continued.



# Vintage Magazine Cover Art

de Pat Volkman, W9JI



Our cover this month is from the October 1924 issue of Radio News. We see a boy wearing headphones and reading by candlelight. Radio books and circuit sketches litter the bed. The clock shows 1:20 A.M. and Dad is standing in the doorway, perhaps wondering if this is a good thing?

I picked this magazine cover because I can relate to the intensity of the boy's interest, as I'm sure many of you can. I can well remember that time as a youth (and sometimes even now) when my interest in ham radio occupied my thoughts day and night.

And Dad, it all turned out OK.



# Ozaukee Radio Club

## September 8, 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 7:34 PM, as introductions were recognized when members checked into the meeting, a go-around was not conducted. It was sadly reported that ORC has lost another well-loved member; Nels WA9JOB (SK), with a funeral date of Oct 2 being set. Pat W9JI will be setting up breakout rooms for the post-meeting.

### **Program:**

Our program was presented by Morgan, NJ8M about the use and design of end fed wire antennas for HF radio use. He described the basic design parameters for half wave wire antennas and went into detail of how these antennas can be configured and deployed upon the average ham operators QTH. Topics addressed were: Matching transformers, ferrite baluns and chokes, random length wires and matching techniques, resonant wire antennas and their feed methods, wire type and transformers available, plus other tips.

### **Committee reports:**

Repeater: W9DHI Gregg [with help from KC9ONY] have been making improvements to the Germantown site, with antenna height, and the addition of PL filtering, on the 146 MHz system. Some improvements are in store for the 222 system in the future.

Treasurer: Gary N9UUR mentioned that no major transactions were processed for the month, and has distributed report; W9DHI moved, W9MXQ seconded, motion carried to accept.

Secretary: Ken W9GA reported that the August minutes will be delayed.

Tom W9IPR: reported two members had donated items for the scholarship fund activity; John Gilmore and Bob Schatzmann. Tom announced the timing for the Swapfest activities and solicited members to help with the fest.

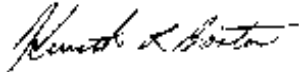
**OLD business:** None

**NEW business:** W9IPR will be taking the large CD out of the CU in October, and transferring the funds to the ARRL, which will complete the process of transferring the awards to the ARRL.

## Adjournment:

WB9RQR moved to adjourn, WT9Q 2<sup>nd</sup>, motion carried; time ending was 8:55 PM. Following the meeting breakout rooms for the program, and a general topic; were opened.

Respectfully submitted,  
Kenneth Boston W9GA, Secretary



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## Upcoming ORC Monthly Meeting Programs

October – John Portune, W6NBC - Copper and Aluminum Foil Antennas

November – Paul Mower VA6MPM - Canadian Rockies SOTA

December – Brian Page, N4TRB – Transatlantic Tests in the 1920s

January – Elections

February – Gary Sutcliffe, W9XT – Antenna Basics

March – Chuck Curran, W9KR - Hickok tube testers

Please contact Pat W9JI with your program ideas.

### 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) to discuss your idea for a program

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## ORC Meeting Agenda

October 13, 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: John Portune, W6NBC  
"Copper and Aluminum Foil Antennas"
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. President Pat Volkmann will email sign-in info, 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**  
**October 13, 2021**

7:15-7:30 PM – Check-In

7:30 PM – Meeting Begins