



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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Volume XXXII

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Number 10

From the President

de Pat Volkmann, W9JI



Fall is here and with it comes an increasing number of contest events. These range from the weekly sprints that last a couple of hours to the more grueling events that last an entire weekend. Contests are a great way to check out your rig and antenna while also having some fun. You don't need to be a world class contest operator or copy CW at 40 WPM to have a good time and get on the air.

There are a number of places that you can get information on upcoming contests. For many years I have used The Contest Calendar, compiled by Bruce Horn, WA7BNM. The list is available by email or at <http://www.contestcalendar.com/>. The ARRL also hosts a Contest Calendar and Contest Corral at <http://www.arrl.org/contest-calendar>. And of course, the ORC Newsletter is home to Gary Sutcliffe's, W9XT, Dx'ing and Contesting column. Gary includes lots of useful and interesting information on propagation, working DX and upcoming contests. Get informed and get on the air!

Watch for the ORC Repeater Survey sometime this month. After some delay, the Repeater Committee has gotten together and produced a draft copy of a survey that will attempt to learn what members want to see in our club repeater system.

This is also the time of the year when I start telling myself that it's time to get the antenna work completed. I have some additional incentive this year as all my HF antennas, except one, had to come down. A dead tree needed to be removed for a remodeling project, which was the antenna support that I have been using for years. The remodeling work included some new windows in a shed that houses my shack. The antennas used to come through a board placed in the window. This was never a tight fit and would let in lots of cold air during the winter. The new setup uses a window that is about 6" shorter than the old one. A panel is permanently mounted in the space above the shorter window, making a weather tight access point for the antennas. All I have to do now is get to work before the weather gets cold.

See you at the meeting.

Pat Volkmann, W9JI

THE COMPUTER CORNER

No. 271: Why you need Linux NOW!

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Microsoft has introduced us to a “new way to build, deploy and service Windows: “***Windows as a service***” (bold italics are mine)*. Prior to the present, Microsoft had to release a new version of Windows every few years. Now, they claim this is no longer needed. Windows 10 will remain Windows 10 for many years, with smaller updates released twice a year, “around March and September” to help meet present needs in a rapidly changing world. Not stated anywhere by Microsoft but something Stan says you can count on will be a monetary charge for the semi-annual updates. Just you wait

and see.

Do you think this is good because it will do away with monthly updates? Forget it! They intend to continue with cumulative updates each month for both security and non-security changes. So, you are not off the hook with time-consuming, multiple-reboot updates.

So what is the advantage? There probably is none, other than tightening the control that Microsoft has on its Windows product. But, they have made some changes to assuage the squeeze. They plan on three “servicing channels”, ostensibly so that their customers can decide how often an individual device can be updated. 1. The **Semi-annual Channel** permits twice a year feature updates. The Semi-annual Channel is probably what you and I would get as a non-corporate user. 2. A **Long Term Channel** is for devices that don’t run Office, such as those that control medical equipment or ATM machines. These are only updated every two to three years. 3. Finally, a **Windows Insider** channel permits users to test and provide feedback on features that will be shipped in the next semi-annual release. My question: does this latter channel simply represent a free testing ground for features that should have been thoroughly tested by Microsoft staff?

The obvious (to me) way to avoid any new fees and miss all this nonsense is to use Linux. The latest and greatest (Linux Mint 20, Cinnamon, nickname “Ulyana”) is so easy to use and functionally similar to Windows that a Windows user will hardly know the difference between desktops, and it is easy for users to tweak it until it looks and feels even more like Windows. Ulyana comes with a clone of Microsoft Office (Libre Office) that works just like the Microsoft product and can open and save Microsoft Office documents in Microsoft formats (.doc, .docx, etc.). And it has more of the other programs than even Office has. Besides Writer (for Office documents), it comes with Calc (for spreadsheets), Impress (for presentations), Draw (for drawing), Math (for formulae) and Base (for databases). Each of these can open their Microsoft counterpart files, and save them that way, too. So you can get a presentation file written in Microsoft PowerPoint, open and edit it in Impress, and save it again in PowerPoint (.ppt) format. Sometimes you may find slight differences when you save between versions, but usually these are easily tweaked to the way you want it. And remember, Linux is totally free, comes with free Libre Office, free Firefox browser and a bunch of other free programs, with thousands of others available. It even has Wine available for you to install, a program that lets you run Microsoft programs within Linux. Remember, no fees, no charges, either for the Linux operating system

or for thousands of available free programs. There are some programs you can purchase if you want, but they are not needed for usual operations.

Linux is software the way it was meant to be structured, rather than the way it has evolved under the tutelage of really-big-business Microsoft. Linux was developed by individuals who wanted to share their programming skills rather than to make a profit. And we can all benefit by this selfless attitude.

So, what do I suggest? One approach would be to add Linux to your existing Windows 10 hard drive in a dual-boot configuration. Then you can get to know Linux, keep it up to date and even use it productively while having the safety net of Windows 10 intact on the same machine and hard drive with the backup of a working Linux installation if you encounter conditions that make you want to abandon Windows. That is what I have done on my main desktop computer. Oh, let me mention this. In a dual-boot arrangement, you can access all your Windows 10 files (letters, pictures, etc.) from Linux. You can, for example, access a Microsoft Word document on your Win10 section of the drive with Linux, suck it into Linux and edit it with Libre office and save it in Linux in Microsoft Word format! Not the other way around, however. While Linux can easily read Microsoft (NTFS) files, Microsoft cannot seem to read files written with the Linux operating system. Or, they don't want to.

Alternatively, you could put Linux on a separate hard drive in your desktop and simply plug that hard drive in (and unplug the Windows hard drive) when you want to work with Linux. That keeps everything separate, and hard drives today are so cheap that this route is very inexpensively done. This ploy also provides some insurance against a hard drive failure because both are not likely to fail at the same time.

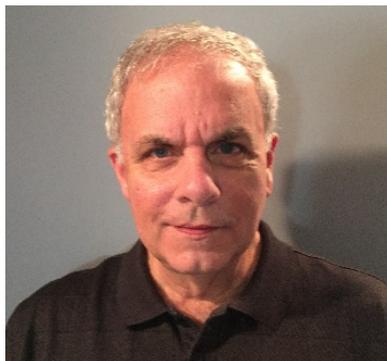
Finally, a third ploy would be to have an altogether separate Linux machine (desktop or laptop). That's kinda nice because if you physically arrange things well, you can be working with two machines and two operating systems more or less simultaneously. That is fun and sometimes extremely useful. Have fun finding what works best for you.

Happy computing!

*Read about this yourself in "Overview of Windows as a service, 15May2020, Microsoft Corporation, <https://docs.microsoft.com/en-us/windows/deployment/update/waas-overview>. In case you did not know, you can click on the https address above and it will take you directly to the document in your browser (sometimes ctrl-click instead of just click).

Vintage Amateur Radio

de Bill Shadid, W9MXQ



A name in ham radio we all know is Kenwood. Today known as JVC Kenwood after their corporate merger with JVC some years ago, in 1971 they were known in Japan as Trio Kenwood – Trio was the corporate name selling the Kenwood brand in some markets. In that same year, Trio Kenwood came into the North American amateur radio market as Kenwood, imported by Henry Electronics. At that time, Henry was the manufacturer of Linear Amplifiers and other high-power RF devices. Henry also owned three store front locations in the United States that sold and distributed amateur radio equipment. Known in this market as Kenwood, they began with one HF Transceiver, the TS-511S, an 80 to 10-meter SSB/CW Transceiver. Also offered were major accessories, including the PS-511S AC Power Supply/Speaker as well as the VFO-5SS Remote VFO. The TS-511S was the first of Kenwood's popular priced "500 series" transceivers (in the North American market) that exist with us today with the current TS-590SG model.



**Left to Right
PS-511S Power Supply, TS-511S Transceiver, VFO-5SS Remote VFO
W9MXQ Photo**

Kenwood always had market segment placement defined by model number – starting in 1970 and still existing today. Here is a rough analysis of the model levels . . .

- TS-100 Series – Mostly Entry-Level Transceivers
 - Examples are the TS-120S, TS-130S, TS-140S
- TS-400 Series – More Deluxe Entry Level Transceivers – added features
 - Examples are the TS-430S, TS-440S, TS-450S, TS-480SAT/HX
- TS-500 Series – Popular Priced Mass Market Transceivers
 - Examples are the TS-510, TS-511S, TS-515S, TS-520, TS-530S, TS-570S, TS-590S/SG
- TS-600 Series – Early on these were 100 or 400 series with Six-Meters added (with some adding six meters to only a few HF bands)
 - Examples are the TS-660, TS-670, TS-680S, TS-690S
- TS-800 Series – Higher echelon transceivers with added technology
 - Examples are the TS-820, TS-830S, TS-850S, TS-870S, TS-890S
- TS-900 Series – Top of the Line Kenwood Transceivers – the most Deluxe
 - Examples are TS-900, TS-930S, TS-940S, TS-950S, TS-990S

To be sure, there were exceptions to the above. The TS-50S and TS-2000 come to mind. And some transceivers seemed to be placed in areas that implied entry or lower level in a radio that obviously had design aspirations above its traditional place in the line. The TS-130S, TS-180S, and TS-590S/SG come to mind as examples.

The TS-511S was not what could be called a Hybrid Transceiver as we came to define that design. We tend to define “Hybrid” as a transceiver with a tube final amplifier section (usually – but not always – two vacuum tubes) and a vacuum tube driver¹. The TS-511S used a 6GK6³ driver tube and two 6LQ6³ final amplifier tubes. It also included seven other tubes in various sections of the radio. Even the PS-511S Power Supply included a single vacuum tube, a 6BM8, in the low high voltage regulation circuit.

The TS-511S was a powerful transceiver making a good account of itself on the bands in competition with powerful American transceivers of the time. These included, but perhaps not limited to, the Swan 500c, National NCX-500, Drake TR-4 (at 300 watts), and the Galaxy GT-550. The TS-511S had an input of 500 watts PEP SSB and 300 watts CW. It could provide over 250 watts PEP SSB and 150 watts CW DC output. Unlike some of the others, there was no accommodation for AM receive or transmit.



W9MXQ Photo

Kenwood designed the interior of the TS-511S on individual small circuit boards, as shown to the left. In this picture, the front panel is at the bottom of the picture. You can see the crystal filters on the board at the upper-left part of the chassis. Shown is the optional 500 Hz CW Filter – the lower of the two filters. The power amplifier compartment is completely enclosed and is under the “DANGER” label at the upper right-hand corner. Microphone Gain and VOX controls are on the controls in the middle of the chassis. The VFO enclosure is just to the right of center mounted at the front panel.



W9MXQ Photo

In this rear panel view, note the exposed internal circuitry at the right center – an open area to the interior. While probably not a shock hazard at that location⁴, it left circuitry exposed in an otherwise well enclosed cabinet design. Connections below the fan were for an external receiver. See connections for the PS-511S Power Supply and VFO-5SS Remove VFO. To the right of the fan is a connector that is used to get fan power from the PS-511S Power Supply.

One disadvantage of the open back area on the TS-511S – which certainly was not unique to Kenwood – was access by vermin during storage. While the radios in this article are in pristine condition, there is a second TS-511S and a PS-511S in this writer’s inventory. Outwardly that second trans-

ceiver is perfect, but it has interior defects that render it never to be restorable. I am extremely fortunate to have this pair.

The circuit boards inside the TS-511S cabinet are mounted over open areas in the chassis top and are open to the bottom for access. Most board to board connections are handled with individually soldered leads to board terminals via a wiring harness. This is traditional manufacturing process at the time.



At the left, top picture, is a front panel view of the PS-511S AC Power Supply. The power supply cabinet also integrates a station speaker. Just to the lower left-hand corner of the speaker area, a small diameter neon pilot can be seen. This indicates presence of AC Power.



At the left, bottom picture, is a rear panel view of the power supply. You can see the “Cinch Jones” style 12-pin power connector for the transceiver, an AC socket for the 120 VAC fan. There is a final amplifier bias adjustment at the top center of the lower panel. There is a provision for the system AC fuse as well as a fixed AC power cord – a typical two-wire 120 VAC line cord of Kenwood at the time. Even much later Kenwood radios did not have a three-wire AC power cord.

W9MXQ Photos

PS-511S AC Power Supplies are extremely rare. If not included with the TS-511S Transceiver, it would be difficult, if not impossible to find one. The somewhat more plentiful Swan 117xc AC Power Supply (for virtually all Swan radios from the original 350 to the 500cx, and more) could perhaps be made to work with the TS-511S. This is just one of the several challenges faced by collectors of relatively rare old radios. I occasionally see TS-511S transceivers for sale without a power supply and wonder if they were ever put on the air. A home-brew alternative always existed with many hams in the 1960's and 1970's having made their own power supply units for transceivers of the day. Circuits used to appear in popular ham radio publications of the day⁵.

An additional note about the PS-511S is that its high voltage rectifier diodes seem somewhat delicate. They are unforgiving and easily overloaded in situations with any excessive current draw from the transceiver. To compare that with the comparatively simple design of the Swan 117xc AC Power Supply would indicate Swan supply as being of lower duty cycle than the Kenwood. But at the same time, the Swan power supply seems to be more tolerant of over current situations. Personally, I attribute that to better and more robust silicon power supply diodes from North America at time.

Certain long-term traits of Kenwood's expertise in radio design are immediately apparent in the performance of the TS-511S. While a bit subjective⁶, I find these items superior and still relevant to this day . . .

1. Kenwood radios have a critical advantage in signal to noise ratio in their receiver i-f design. I am not an RF Engineer – but know what I hear. Your ears can tell the difference even if instruments cannot.
2. The crystal i-f bandpass filters Kenwood was using were first rate – not something always evident in Japanese radios of the time. There was at the time (and still today) active discus-

sions of the recovered audio performance of crystal filters that all but Collins used vs the mechanical filters used in the i-f of Collins radios beginning with the 75A-4 HF Receiver². To my ear, only Kenwood was equal to the challenge of the performance of the mechanical filter. That last comment is quite subjective and perhaps open to some discussion.

3. Kenwood has a “smooth” performance to its transmitter tuning. In my opinion, this was the result of good driver and PA tank circuit design. Along with high quality meter instruments in the transceivers and good use of vernier controls, tuning a Kenwood PA was smooth and exacting – and, relatively easily performed. Missing was the rather erratic tuning of Swan, Drake, and Galaxy products. While the Collins products of the day were superior to their American cousins in many ways, the tuning process was different and complicated⁷.

Like most of the competition of the time, the Kenwood TS-511S was offered with all the proper accessories. As shown in the opening picture herein, the TS-511S had a matching VFO-5SS Remote VFO. Here are some notes about the unit . . .



At the left, top picture, is a front panel view of the VFO-5SS Remote VFO. The VFO takes its power from the host TS-511S transceiver. Note there is a crystal socket at the upper right-hand corner and an associated crystal/VFO switch below it. The VFO-5SS could use a crystal for a single frequency location, such as a net. This was much more important in a day when free running VFO oscillators could not approach crystal stability like the PLL circuits of today.

W9MXQ Photo



At the left, bottom picture, is a rear panel view of the Remote VFO. The small, 9-pin connector at the right is the interconnect to the TS-511S and carried VFO power, switching signals, and VFO RF to/from the transceiver. The eight pin “octal” socket is not generally use but contained connections to an internal relay that could be used for linear amplifier, receiver preamplifier, or other accessories.

W9MXQ Photo

The FUNCTION switch on the VFO-5SS allowed for operation of the station on the Transceiver VFO (Exclusive), Split between the two, or from the Remote VFO (Exclusive). Rather unique was RIT on the External VFO – but not so pleasant was the RIT On/Off switch that required the user to rotate the RIT control to its extreme minus voltage rotation to turn on and off. In the top picture of the VFO-5SS, above, you can also see the OPERATION indicator lamp in the upper left-hand corner of the front panel. That lamp illuminates when the VFO-5SS is controlling station operating frequency.

If the PS-511S is rare then the VFO-5SS is nearly unobtainium⁸. As collecting goes, this is typical. Finding a historic transceiver can be difficult. Its matching power supply generally stays with the transceiver – even though it is in a separate cabinet⁹. So, it is generally rarer than the transceiver as a stand-alone purchase. Since only a small percentage (or relatively so) of initial transceiver buyers bought a Remote VFO, they have become rare. Cases in point are 312B-5 External VFO's for Collins KWM-2, RV-4 and RV-4C for Drake TR-4, HA-20 for the Hallicrafters Cyclone (SR-400) and Hurricane (SR-2000), FV-101 and FV-101B for Yaesu FT-101 and FT-101B/E/F, to name a few.

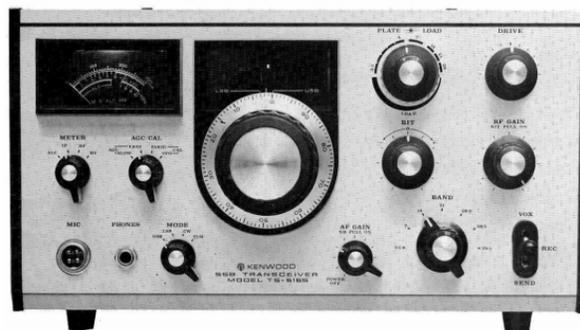
The TS-511S had a cousin in the North American market. That was the TS-511D. Differences were only in the final amplifier which contained 6146A tubes instead of the 6LQ6 tubes used in the TS-511S. While the TS-511D used the same VFO-5SS Remote VFO, it is unclear as to the power supply and how it might have differed from the PS-511S. Not that the PS-511S had an “S” in the model

number. Did that mean there was a PS-511D¹⁰? Switching from 6LQ6 sweep tubes to 6146A tetrodes is not a plug and play process.

Kenwood did not offer the TS-511S or TS-511D outside the United States. However, they did offer the identical TS-515S and apparently a TS-515D¹⁰. Here are the TS-511S and the TS-515S, side by side . . .



**Kenwood TS-511S HF Transceiver
W9MXQ Photo**



**Kenwood TS-515S HF Transceiver
Kenwood Photo**

Photo color differences are not present in actual units – they are identical except for the actual model number at the bottom center of the front panels. Well, maybe better called, “almost identical.” My own early TS-511S does not have a TUNE position on the MODE switch – the TS-515S, and the later builds of the TS-511S have that fourth MODE position. It is hard to see, above, but the MODE switch is to the lower left of the Main Tuning Knob on both radios – note three positions on the TS-511S and four on the TS-515S.¹³

Friend and fellow collector, Jan, N8CBX, and I have recently discussed the existence of both the TS-511S and the TS-515S and their similarities. We felt we found one difference in the MODE switch just mentioned. At first, we disagreed that the TS-515S was unique in having the TUNE position as a MODE selection. But we have found internet pictures (Bing™ or Google™ search of both models) showing three and four mode versions of both radios. It is reasonable to assume that both went through a running design change that added the TUNE position in later production runs. In mentioning Jan, I would be remiss not also mentioning Dale, W4OP, who was involved in the same conversations. Dale is another friend and collector of vintage amateur radios. Dale introduced me to Jan.

It is logical that there would have been a TS-515V¹⁰ model to market in Japan. Japan had (and still has) an entry level license with a 75-watt power limit. The radio probably would have used a single 6146A in its final amplifier¹⁰. Some of those lower powered (suffix “V”) radios made it to the USA – case in point being the Kenwood TS-130V version of the popular TS-130S. If that happened with the TS-511S, then perhaps there are a few TS-511V models somewhere in the USA¹⁰.

For several personal reasons tied to using a TS-511S early in my ham radio career, I had been looking for one for years. Thanks to Mark Olson, KE9PQ¹¹, I found the one shown in this article (including the PS-511S and VFO-5SS) in the past few months. A ham friend in the area¹², put me in touch with a parts-only TS-511S and excellent looking and working PS-511S. These “extra” units support the working station.

It is interesting to see Kenwood’s two previous radios to the TS-511S in the USA and the TS-515S in the rest of the world. Branded as Trio, there were two radios that developed into what we knew as the TS-511S . . .



Trio TS-500 HF Transceiver (Pre-1970)
Trio Photo



Trio TS-510 HF Transceiver (1970)
Trio Photo

These radios used a pair of S-2001 final amplifier tubes for an input of 160 watts PEP SSB and DC CW. The S-2001 is a Japanese specification 6146 or 6146A. These were primarily vacuum tube radios – not all that different from the TS-511S.

Also, for comparison to the Trio TS-510, above, was the Allied (Allied Radio Company¹⁴) A-2517 HF Transceiver made on contract with Trio . . .



Allied Radio A-2517 HF Transceiver from 1970. This perhaps is the first Trio-Kenwood radio to be marketed in the USA. Comparing this radio with the Trio TS-510 shows them to be similar, if not identical. There was also a very nice A-2516 Receiver that would have worked well as a partner with the A-2517 shown here. The A-2516 was not designed to transceive with the A-2517, to my knowledge. These date from about 1970.

Radio Shack Photo

I appreciate that you read my articles. A special thanks go to Bob, W9DYQ, for his proof reading. Also, for this article, I owe a debt of gratitude to Mark Olson, KE9PQ, Nationwide Radio⁹, for his assistance with finding this TS-511S HF Transceiver Station. Remember that I am open to questions and comments at my email address, W9MXQ@TWC.com.

Notes:

¹ The Hybrid amateur radio transceiver in volume was pioneered by the American designed and manufactured, Sideband Engineers SB-33 Transceiver. It was introduced in 1963. An exceptionally low volume American transceiver, the Hallicrafters FPM-200, would qualify as well but it was never really produced in high volume. Hybrid came to be known in the amateur radio market as a transceiver (or receiver/transmitter separates) where the only tubes were the driver and final amplifier states in the transmitter.

² Subject for a future article. This includes the SB-33 and FPM-200, mentioned in Note 1, above.

³ Kenwood used the 6LQ6/6JE6, the 6MJ6/6LQ6, or the 6ME6 – supposedly based on availability. Also, note that some 6LQ6 tubes are designated only as 6LQ6 without the 6JE6 or 6MJ6 sub-designation.

⁴ Perhaps an unwarranted conclusion – always be careful - DO NOT TOUCH ANY EXPOSED CIRCUITRY!!! (Unless power is removed, and all voltages are proven to be completely discharged.)

⁵ **QST, CQ, Ham Radio, 73**, and other publications come to mind.

⁶ I have been an active ham for 56 years, so I do not apologize for my version of “subjective!”

⁷ Collins seem to have had an overly complicated tuning process. The S-Line transmitters could be extremely frustrating in terms of proper grid drive. While important in the Collins tuning process, grid drive was not even a measured parameter in Hallicrafters transmitters!

⁸ “Unobtainium” is a term use in many collector fields – not just ham radio. It means something like, “I don’t care how hard you look; you are not likely to ever find one!”

⁹ Today’s radios that typically run from 12 VDC power are not so reliant on an OEM Power Supply. Third-party 12 VDC power supplies are economical and readily available. However, more and more high-end transceivers run at 24 or even 48 VDC for their final amplifiers. Such power systems, however, are generally built into the transceiver.

¹⁰ This references a conjecture on my part based on experience – but not a proven fact.

¹¹ Mark Olson, KE9PQ, is the owner of Nationwide Radio: <http://nationwide-radio--amp-amp-amp--eq-sales-llc.mybigcommerce.com/>.

¹² The parts only TS-511S and compete PS-511S come via the good graces of Richard Engel, K9RWE.

¹³ The three and four MODE versions of the TS-511S and TS-515S looked as follows . . .



Three MODE Version

**Mode Left to Right
USB-LSB-CW**



Four-MODE Version

**Mode Left to Right
TUNE-USB-CW-LSB**

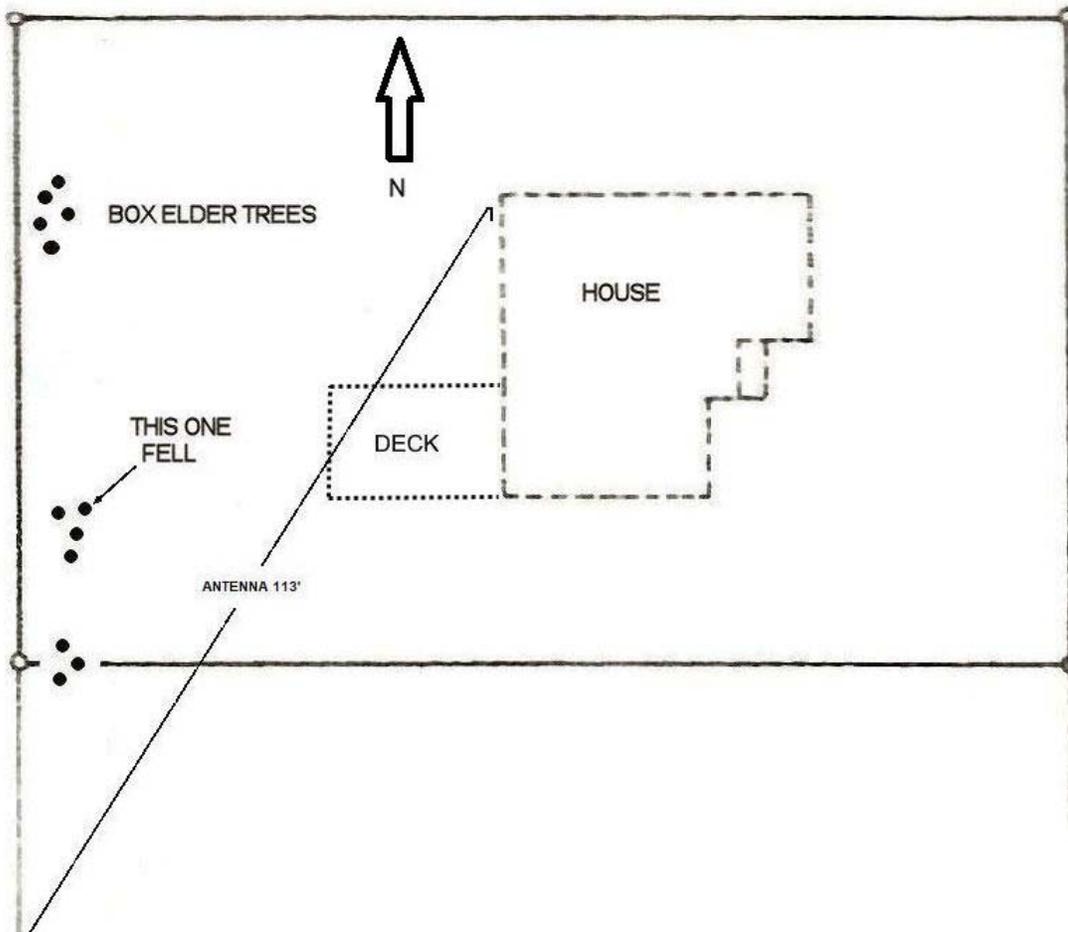
¹⁴ Trio Corporation (Trio-Kenwood in the time of the TS-511S and now JVCKenwood) was involved with many retail operations making private label electronics – especially world band (short-wave) receivers, ham radio equipment, and other related items. Also, of interest to ham radio operators is that JVCKenwood is the corporate owner E. F. Johnson Company and their line of public service VHF/UHF RF equipment. Many of us remember E. F. Johnson and their extensive line of Viking Transmitters and Accessories. The Viking line of amateur radio equipment was sole to a company formed for that purpose – named Nye-Viking, part of the Wm. Nye Company.

Pulleys and Counterweights Really Do Work!

By Stan Kaplan, WB9RQR



On Friday, 11 September 2020, we had a minor disaster at my QTH. Days and days of rain preceding this date had softened the ground, and one of the box elder trees on the west margin of my property decided it had had enough. At about noon that day, it toppled over with a crash to the east, bringing the top branches onto my deck. Below is a sketch of my QTH and part of my neighbor's yard, with the position of trees, antenna and deck.



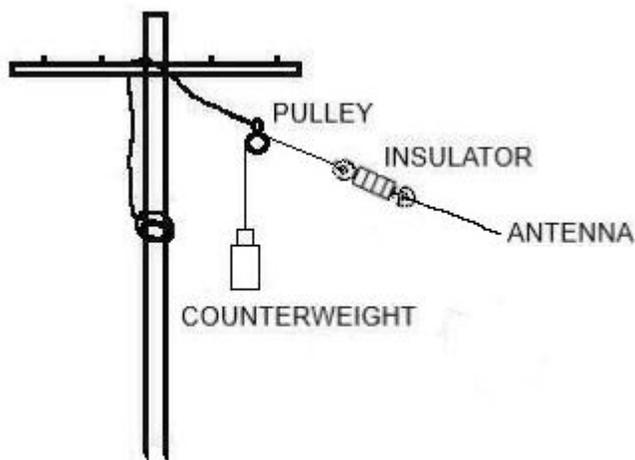
The box elder that fell was big, 21 inches in diameter (measured) and 65 feet high (measured). It fell toward the east, missing several other trees in my back yard and landing with its top branches on my deck. The branches did no damage to my deck other than to a mechanical weather vane/wind speed indicator that I was able to straighten and repaint. But, if you look at the diagram above, it landed on my longwire HF antenna and brought it down to the deck and ground.

But, the copperweld longwire antenna did not break! Let me describe the layout and why it was saved without damage. Indeed, after removal of the tree branches and with a little careful guidance, it popped back up to its original position, and my tuner showed the SWR to be just the same as before the incident.

The antenna starts at the HF station in my basement, comes out of a basement window (through the frame) and runs up at the NW corner of my house to a ceramic insulator under the soffit 17.5 feet above the ground. It then heads in a SW direction, across my yard and part of

my neighbors. There is an active Wisconsin Central railroad track on the west margin of our properties, and buried in the vegetation at the back of my neighbor's yard on the train right-of-way is an ancient telephone pole and cross-member, abandoned and clearly forgotten by the railroad. Judging by its condition, the pole and cross-member are at least 100 years old. But, supported by surrounding small trees and shrubs, it stands strongly and (with my neighbor's full permission) supports the end of my longwire antenna.

So, to support the antenna end, I threw a line over the telephone pole's cross member, tied a pulley to one end and tied the other end to the pole within standing reach. Then I connected a dog-bone ceramic insulator to the end of the antenna (about 10 feet from the pole), and light nylon woven cord from the insulator's other end (the halyard), through the pulley (close to the telephone pole) and down to a plastic gallon tea jug filled with sand as a counterweight. This is all shown in the sketch below. Not shown is a light line, with lots of slack, between the counterweight and the pole to keep the counterweight from swinging too much in high winds.



The counterweight keeps the antenna taut so there is very little "belly", and high winds, ice or snow offer no danger to the antenna's position. But, as we have seen, a falling tree will bring it down (without breaking it), until it pops back up when the tree is removed.

So that is my story. Since then, I have gotten back on the Wisconsin ARES/RACES HF Net, Sunday mornings at 8:00 a.m., with no problem. It's good to be back on HF again!

Upcoming ORC Monthly Meeting Programs

November - YU7EF 6M Beam Construction & 6M DXing, Ken Boston W9GA
December - *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 Volkmann W9JI at w9ji@arrl.net to discuss your idea for a program.

Upcoming Events

Wisconsin ARES / RACES Virtual Conference & ARRL Convention

Saturday, Oct. 24, 2020, 9:00 AM to 4:30 PM

<https://wi-aresraces.link/register>

49th Annual WARAC Midwinter Swapfest

January 9, 2021

Racine, WI



DX'ing & Contesting

De Gary Sutcliffe (W9XT)



If you chase awards like DXCC (DX Century Club), WAS (Worked All States), etc., you need confirmation of your contacts. Traditionally this was done with paper QSL cards, essentially custom postcards with information on your station and the contact information.

Some of these were quite plain, just printed information with your name, call sign, address, and maybe your county and grid square. Others had full color pictures of the operator, station, dog, or perhaps a scene from the area. Some even folded out with more pages.

In the old days you could look up the address of the station you worked in the Call Book. These were telephone book (remember those?) size and style books that listed ham addresses by call sign. They came out once a year, but you could subscribe to quarterly updates.

Then you wrote out your QSL card, and if you were polite, included an SASE (self-addressed, stamped envelope) so you would not burden the other guy with the hassle and cost of mailing you a response.

DX QSLs were more difficult. Part of the problem was postage. US postage stamps are useless in Outer Flezevania. There were places that sold foreign uncirculated stamps, but that was expensive and took a while to arrive. One solution was International Reply Coupons, IRCs. You could buy them at the local post office, but you usually got a deer in the headlights look when you asked for them.

Theoretically, one was good in any country for a letter to any other country. In reality, you had to usually send a couple or five. Usually you did not buy IRCs from the post office. If someone sent you a card with IRCs, you purchased a stamp with cash and used the IRCs to send to someone else. They became a sort of an international currency, but not as high tech as Bitcoin. IRCs have been discontinued.

An alternative was "Green Stamps." These were dollar bills included with the QSL to help the DX station buy stamps. You had to be careful though. It was illegal for citizens of some countries to own foreign or US currency. If the DX operator were in jail, you probably would not get a card from him.

The other problem was theft. Postal workers in third world and not so third world countries would often supplement their income by opening interesting mail and taking the contents. You never put a call sign on an envelope. That was a tip-off for enclosed green stamps and IRCs, which in some areas could also be exchanged (under the table) for cigarettes and food.

The last method was through QSL Bureaus. But that was terribly slow, often 2-3 years to get a response. It was so slow that on CW stations sometimes send "QSL via Buro" hinting that it will be transported by donkeys.

Bureaus handled cards for a country or region. Instead of sending ten cards individually to stations in Germany, you sent all ten to the DARC bureau. They would arrange to get the cards to the proper

hams. Some countries only allowed their hams to exchange QSLs via the bureau. PO Box 88, Moscow was where you sent all your cards to USSR hams for many years.

The ARRL runs the US bureau system. You can send sorted outgoing cards to the ARRL, and for a fee, they will send them to the other country bureaus. Based on the number in your call sign, you need to send money or SASEs to the right incoming US bureaus.

It could take years to get DXCC using the paper QSL method. In 2003 the ARRL started the LoTW, or Logbook of The World program. It is a computerized system that matches logbooks between stations.

If you upload your logs and a station you worked also uploaded theirs, it matches the QSOs, and you have QSO credit for ARRL and a few CQ awards.

Some stations have their logging software upload each QSO as they make them. You can get credit within minutes in some cases. I upload soon after contests or when I have a dozen or so contacts in the log. Right now, I have about 136,000 QSOs uploaded to LoTW and almost 72,000 QSL records. My experience is contesters and digital mode operators are most likely to participate in LoTW.

LoTW saves a lot of time and money. Before LoTW I would often reply to a thousand paper QSLs during high sunspot years. That was expensive and time consuming. Now I get a trickle of paper QSLs. I do not send out for many, either. I have every DXCC confirmed on at least one band, and I am not motivated in most cases to spend \$5 or more in outgoing postage and green stamps to get a paper confirmation on a different band or mode. Some stations let you send money by PayPal to cover return postage. In general, they don't need another card from the US, so you avoid the expense of sending a card first.

Many stations do not participate in LoTW, so there is no alternative to paper QSL. Over time more and more stations sign up for LoTW. Once in a while, a QSL confirmation shows up for a contact made a decade or more ago.

The ARRL is very serious about the security of the LoTW program. A major complaint is the number of steps that are required to get set up. It is more complicated than setting up a bank, credit card, or brokerage account. My DXCC record is very important to me, considering it has taken almost 50 years to get where I am, but not nearly as important as getting my life savings stolen.

LoTW is a powerful system and is worth using for anyone who is interested in awards. The link for the LoTW is at <http://www.arrl.org/logbook-of-the-world>

Another great resource for getting started in LoTW is https://www.g4ifb.com/LoTW_New_User_Guide.pdf

The fall contest season gets underway in October. The big one is the CQWW Phone contest starting at 00:00 UTC Saturday, October 24. That is Friday night at 7:00 PM local. CQWW Phone is the most popular contest in the world. It is a DX contest where you work only DX. The exchange is a signal report and your CQ Zone. We are in Zone 4. The multipliers are the number of DX countries plus the number of zones worked on each band.

You get three QSO points with DX stations on other continents. Contacts with DX stations in North America are worth two points. You get zero points for contacts with stations in the US, but you can work them to get the country and zone multipliers.

There are a ton of different operating categories. There are high, low, and QRP classes. You can go assisted with DX spotting assistance or unassisted. You can go all band or single band in any of the

power and assisted/unassisted categories. Read the rules and results from past years at <https://www.cqww.com/>

Twenty meters will be the main band for this year. The 15 Meter band should produce more contacts than in the last few years. Most will continue to be to the south, but we might get contacts in other directions if the solar activity continues its slow increase. Check 10M periodically, especially in the early afternoon. There will likely be some brief openings to South America.

Contests for early November are the ARRL Sweepstakes. SS is a very popular contest and was my favorite when I first started out contesting. The exchange is really long compared to other contests. It is based on the header for traffic handling. You send out a serial number, your precedence (a letter indicating your operating class), your call sign, your check (last two digits of the year you were first licensed), and finally, your ARRL section. We are in the WI section. Larger states are often broken down into multiple sections. New York, for example, has four, and California has nine sections. Assuming I go low power unassisted, my first exchange will be "001 A W9XT 70 WI."

The CW start is on November 7, and phone starts on November 21. The starting time is 2100UTC and runs for 36 hours, but you can only operate 24 hours. Check out the full rules and operating guidelines at <http://www.arrl.org/sweepstakes>

DXpeditions are still pretty much on hold due to the COVID-19 pandemic.

October is generally considered to be the best month of the year for HF propagation. It is also the last month for decent weather for getting antenna work done. Take advantage of it!



My very first DX QSL. I was a Novice and the contact was made with a 75 watt crystal controlled transmitter and a 40M dipole on CW.

Ozaukee Radio Club

September 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 7:30 PM, as introductions were recognized when members checked into the meeting, a go-around was not conducted. Pat mentioned that those hams that would like to attend our Zoom meetings, but are not getting the group invitations need only to email him to be added for an invite.

Announcements:

Gary K9DJT announced that he has reached 50 states worked on 30meters. Adam, KD9NRG has a new Icom IC7300, Pat W9JI is working on completing 5BWAS, Fred W9KEY updated info on the ARRL plus TAPR digital program, Gary W9XT mentioned the International Space Station operation on 145MHz uplink/437MHz downlink, Ari KD9KHY has upgraded to general class. Mike WH6ZZ has been active in the recent State QSO parties.

Program:

KC9ONY Tom did a program on the ORC system of repeaters; W9CQO. The system encompasses repeaters fixed on 146MHz, 224MHz, and 446MHz. The system also boasts remote receivers located at 5 sites, with the main RX/TX site located on the west side of Cedarburg. He described the system physical components and layout in great detail, and gave us some historical perspective. Tom also gave some indication of future plans.

Officer Reports:

Repeater VP KC9ONY Tom advised that there still are some noise issues on the 222 system.

Treasurer Gary N9UUR advised that the statements had been emailed to the club. He mentioned that we have received thanks from Cindy Douglass for the SK donation (for Skip). He has reserved the senior center for 2021, should we return to onsite meetings. We have sufficient cash to operate, minimal bills, and our donation program has raised \$1170 as of the meeting.

Secretary Ken W9GA had recently posted the August 2020 minutes; WB9RQR moved and N9DRY seconded to accept the minutes, motion passed.

OLD Business:

Pat W9JI updated the status on the repeater survey, and mentioned that there are three main issues put forth in the upcoming survey. He also discussed the pending elections for club officers, and asked how we might be handling these in January 2021. Ken W9GA mentioned that we have vacated the 'shed' rented on Hawthorne court, and moved the trailers to big Nate's (KC9TSO) QTH in Germantown.

NEW Business:

Tom KC9ONY informed us that there is to be a ham auction on Oct 13th, and to remind us of the 'parks on the air' event to be held Saturday the 19th. Pat W9JI conducted an online survey on what options we should ad-

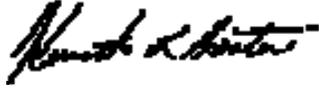
dress in the future; the answers were revealing: Wait until vaccine- 33%; In-person- 26%; Zoom- 17%; Combination- 21%.

Adjournment:

Stan WB9RQR moved to adjourn, Bill W9MXQ seconded the motion, and motion carried. Meeting ended at 9:05 PM.

There were 36 members (unique call signs) on the ZOOM site. Contact Ken W9GA to obtain the list.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kenneth Boston".

Kenneth Boston W9GA
Secretary

ORC Meeting Agenda

November 11, 2020

1. 7:20 – 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. Program – Ken W9GA: 6M Beams & DXing
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 – Tom Trethewey (KC9ONY)
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. Details will be emailed 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
November 11, 2020**

7:20-7:30 PM – Check-In
7:30 PM – Meeting Begins