The ORC Newsletter

Official publication of the Ozaukee Radio Club, Inc. Email all contributions to the editor, Bill Shadid, W9MXQ (newsletter@ozaukeeradioclub.org). Permission to reprint articles published in any issue is granted provided the Author (as shown in the article) and the Ozaukee Radio Club Newsletter are fully credited in any publication.

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Volume XLI	November 2023	Number 11

From the President

de: Bill Greaves, K9GN

Happy November – what a wild weather swing the last couple of weeks. One week started with nearly 80 degree sunny weather and ended more than 30 degrees less. Then a few days later the first snowfall of the season graced our lawns. I do enjoy the change of seasons!

As you have probably seen, the ARRL requested supportive comments to the FCC on the continued use of the 60-meter band. The ARRL encourages expressions of support to the FCC for the current 100 E ERP power limit (instead of reducing the power limit to 15 W EIRP) and continuing secondary access to the current channels. The deadline for 60-meter comments has been extended to November 28, 2023. It is a fact of life that regulatory agencies examine not only the quality of comments but also the quantity of supportive comments. I encourage you to go to https://www.arrl.org/60-meter-band to find instructions on how to submit comments and to locate background information on the issue. Any supportive comment is better than no comment.

Please note a new date for the Spring Swapfest: Saturday, April 27, 2024. Please put this date in your calendars now. We have been on a string of successful Swapfests – both Spring and Fall – for several years due to the efforts of many club members, particularly the two Toms: Tom Trethewey KC9ONY and Tom Ruhlmann W9IPR. We thank you both! Our Treasurer, Gary Bargholz N9UUR, deserves a shout-out for his efforts over the past couple of months navigating the sale of Cornerstone Bank to Horicon Bank. We had been using Cornerstone for some time. While the sale itself may have been smooth, assuring our several accounts are properly accounted in the Horicon system has been exciting (!) for Gary. His many communication and detailed bookkeeping efforts have successfully produced accurate new accounts at Horicon. Thank you, Gary.

The club membership will gather on Wednesday, November 8th, both in-person and on Zoom, at 7:30pm, with meet-n-greet at 7:00pm, at the Grafton Senior Center or on Zoom. As always, I look forward to seeing you there.

73,
Bill K9GN

Daylight Savings Time Ends – 2:00 AM, local time, 5 November 2023.
Move Clocks back one hour at 2:00 AM!!

A Message from the Editor
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de: Bill Shadid, W9MXQ, Newsletter Editor

Please note Club President, Bill Greaves, K9GN, on Page 1 for his monthly message.

Tom Ruhlmann, W9IPR, starts us out with a nice article on a project to organized the tools in his shack. Interesting idea – take a look at Page 5.

Check out Don Zank, AA9WP, in his Ozaukee County ARES column this month. A special update on the recent Section Emergency Test (SET) and Ozaukee ARES involvement. Interesting reading. Want to know more about ARES? Contact Don at: AA9WP@ARRL.net

Stan Kaplan, WB9RQR, maybe jumps the gun on the holiday giving season. Did you ever think of giving your Main Mahine a Gift? Details in Stan's 308th consecutive Cpm,ute4r Corner Article.

Gary Sutcliffe, W9XT, is back with his On the Air Activities column – starting on Page 12. Gary gives us a good head start on the busy winter contest season. Also see information on recent Federal Communications Commission activities. Some of this stuff has real potential to negatively impact ham radio. Read Gary's material and also be sure to attend next week's meeting presentation by Carl Luetzelschwab, K9LA. See further details on the meeting within the article by Jeananne Bargholz, N9VSV, Page 34.

Your Editor, Bill Shadid, W9MXQ, has his regular Vintage Amateur Radio column discussing the Hallicrafters SX-117 Receiver and HT-44 Transmitter and all the available accessories offered for it back in 1963 through 1965. This pair has been with W9MXQ since the late 1960's. Check this article beginning on Page 20.

Tom Trethewey is back with his Upcoming Events column. Check Page 32.

Details of the October Ozaukee Radio Club are outlined in the Minutes of that meeting provided by our Secretary, Ken Boston, W9GA. See Page 32.

Jeananne Bargholz, N9VSV, our Program Committee Chair (in addition to being 1st Vice President), outlines the speakers and their topic for next week's meeting. Take a look at information on our speaker, Carl Luetzelschwab, K9LA, ARRL Central Division Director.

Need help to get your thoughts on paper for an article? That is what the Editor does!! Let me know how I can help you. newsletter@ozaukeeradioclub.org

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Onward To the Newsletter

Projects, Tools, and Tip's

de: Tom Ruhlmann, W9IPR

I have often thought that there are far more projects in process or completed (sometimes) within the club than the membership is aware of and from which the rest of us can learn or become inspired to start our own project. Further, what about the various tools different members have bought, borrowed, or devised to complete a project? And where do you keep those tools so you can find them when needed?

That brings me the point of hand tool storage.

Normally I kept my electronic hand tools in a tool box near my bench in the "radio room." Typically, when I needed a specific tool it "might" be in the tool box and if so, it took a while to actually find it. On a recent visit to Harbor Fright, I noticed some magnetic rails like the ones I use to hold my wood working chisels next to the lathe and then it struck me. They were only about $5.00, and I could use several to hold my electronic hand tools.

But where do I place them near my work bench?

Years ago, when we remodeled the kitchen, I saved the wood cabinets and hung them in the “radio room.” On the outside of the cabinet doors seemed like a good accessible place to keep my hand tools as you can see in the photo.

I liked the idea so much I decided to use some of the doors to store several spools of lead wire for easy access when needed. All that was required were several screw hooks (with long shanks) and some dowels. Again, you can see the result.

OZARES: Ozaukee Amateur Radio Emergency Services

by Don Zank AA9WP, OZARES Emergency Coordinator, aa9wp@arrl.net

The first weekend in October means it is time for the Simulated Emergency Test or S.E.T. The S.E.T. is a nationwide exercise sponsored by the ARRL for the Amateur Radio Emergency Services, ARES©. This is an opportunity for communicators to test the capabilities of their stations and skills as operators. Now is the time to find any weaknesses in performing emergency communications.

The S.E.T. follows the National Preparedness Month of September. During the month, individuals, families, businesses, and organizations are encouraged to review their abilities to be prepared for emergencies. Information about preparedness can be found at: www.ready.gov.

This year the S.E.T. was scheduled for October 7 and 8. However, due to schedules with several members, the OZARES exercise was conducted a week later on October 14.

Roland, KB9TMB, spearheaded the exercise for our group putting together a working schedule, and frequency plan, operating as net control, and tracking our results. He did a great job.

One of the aims of the Simulated Emergency Test is to create, maintain, and strengthen working relationships with served agencies and partners. This year, for the first since the pandemic, OZARES operated from both Ozaukee hospitals. Art, AC9CD, worked from Ascension St. Mary's in Mequon, and Dave, KD9JYL, operated from Aurora in Grafton. We were joined by John, NO9X, from the Sheboygan Aurora hospital.

Another first was working with the Red Cross station in Milwaukee. Steve, WI9ARC operated the station and had a very good signal into Ozaukee County.

On the technical side, WINLINK capabilities were also included. The two gateways in Ozaukee, WI9OZ-10, located at our radio room in Port Washington, and WI9OZ-11, located at Saukville Village Hall received and forwarded both packet and VARA WINLINK messages. Members checked into the exercise using the WINLINK check-in form that uses the mapping function. This allows members to pinpoint the locations of all checked-in members by using either the mapping function or generating a text list.

VARA HF WINLINK was used in the exercise to pass messages by using gateways outside of our local area.

Other members who participated include Cindy, KA9PZG, Markus, KD9UWG, and Tony, AD9BR.

We do have two locations that were able to hear all our simplex operations. The Aurora Hospital in Grafton, and KA9PZG's, also in Grafton. This is one of the lessons learned from the exercise. Some stations, including mine, need to increase the height of their antennas to improve simplex operations.

Operations using emergency backup power were encouraged during the S.E.T.

We did learn some important lessons this year and have established goals for next year. One of the important goals established for 2024 is testing our message-handling competency. OZARES did a nice job of testing our communication effectiveness within Ozaukee County stations and at the Red Cross office in Milwaukee. However, an important element during emergency operations is the proficiency of the operators to pass and handle messages between the served agencies and partners.

As well for next year, the Public Health office in Port Washington should be included in the exercise.

Last year we used the texting function that is part of WINLINK Express for alerting the operators of the exercise but failed to include it this year. That will not happen next year!

This year we missed working with our neighboring counties and organizations in the exercise. Operating the first weekend of October will be a priority.

OZARES operating skills and equipment for the HF bands will also be added to the exercise. The State Emergency Operations Center in Madison and the Badger Emergency Net are operating on the HF bands during the exercise. It would be a good test of our HF station to see if we can contact both nets.

Improving our operating skills and stations will be on-going goals for OZARES for 2024. This means all year not just for a weekend in October. Looking forward to the Simulated Emergency Test in October 2024.

73,
Don, AA9WP
OZARES Emergency Coordinator

WI9OZ Repeater
147.330 + pl 127.3
WI9OZ WINLINK Stations; VARA and Packet
WI9OZ-10, Port Washington, and WI9OZ-11 Saukville, 145.610
Nets: First and second Thursday, and on 5 Thursday months, the 4th Thursday; 1900 local time

OZARES Repeaters:

- **147.330 MHz (+ Shift) (127.3 PL)**
- **443.525 MHz (+ Shift) (114.8 PL)**

ORC Repeaters are On the Air Awaiting Your Call:

- **146.97 MHz (- Shift) (127.3 PL)**
- **224.18 MHz (- Shift) (127.3 PL)**
- **443.75 MHz (+ Shift) (127.3 PL)**

THE COMPUTER CORNER
No. 308: Give Your Main Machine a Gift

de: Stan Kaplan, WB9RQR, 715 N. Dries Street, Saukville, WI 53080-1664
wb9rqr@gmail.com

Nancy (KC9FZK) suggested that a holiday gift for your main machine, be it laptop or desktop, might well be a topic to explore in the Computer Corner. So, we thought about that for a bit, and came up with a couple of ideas for you. These would be items you don't have, or don't have enough of, that would make your computing life easier and more productive, without breaking your personal bank.

My first thought was an increase in memory. If you are running Windows 10 or 11 presently and have less than about 8 GB of RAM on board, you are very likely to see a noticeable increase in speed and efficiency by kicking the RAM up to 12 or even 16 GB. Currently, about 16 GB on board is fairly well accepted as a "sweet spot" for all usual Windows mortals except perhaps the most avid gamer. Just as an example, for a desktop you can get 16GB (2 X 8 GB) DDR4 RAM for as little as $29.97. If you have 2 empty slots now and a couple of 2 GB sticks already, $30 would bring you up to 20 GB total, well over the sweet spot and enough for just about any heavy jobs you might have. While a Linux machine will work along nicely with as little as 3 GB of RAM, it will really smoke if you bring it up to 6 or 8 GB.

On the other hand, while an increase in RAM would be a good thing, it may not be that easy. If your main machine is a laptop, it will take only 2 SODIMMs, the **S**mall **O**utline **D**ual **I**n-line **M**emory **M**odule boards that constitute RAM in laptops. So, you need to see what is already there. The easiest way for that is to get the free program CPU-Z from MajorGeeks (https://www.majorgeeks.com/ - just ctrl-click the highlighted hyperlink shown here and search for CPU-Z, then download and run it). CPU-Z will tell you exactly what you have and how much. Then, the easiest path is to do a search for, download and run Crucial System Advisor or Kingston Memory Finder (Crucial and Kingston are companies that sell memory) to see what is available from them to increase or upgrade what you have at present. Be aware that you can get snarled in the fine points of different types of memory, and it can drive you crazy! Unless you want to engage in those topics (and you will learn a lot in the process), the easiest path is to run both Crucial and Kingston programs and follow what seems to be the best (and least expensive) path, be it an upgrade for a laptop or a desktop. But you can rest assured that if you get up near or to that sweet spot or more, you will see a difference in performance, without spending a whole bunch of money.

A second possibility is a nice change that will definitely not cost a bunch; a wireless keyboard and mouse combination. If you don't already have this setup, it is almost assuredly because you are set in your ways, and you have been too lazy to try it. You can get a Veilzor wireless mouse/keyboard combination for only $17.99 at current listings (Oct 23), compatible with Windows, Linux and even Mac. And there may even be a 5%-off coupon available on top of that low price, so look for one if you order. If you want a more familiar name brand, a Logitech MK270 wireless keyboard/mouse combo for Windows will cost you only $27.95, but, use caution if you wish to use it with both Linux and Windows. The older models M-R0038 mouse and Y-R0015 keyboard that come with some of these combos may not work with Linux, so check that out and read the specs before you order. Don't hamper yourself by buying a model that will not work with all operating systems; you may find later that you want a Linux-compatible setup as well as one that works with Windows and Mac.

In my experience, you will not miss those two cables from your desktop no matter what brand you go with. On the other hand, be prepared to put in fresh batteries about every 3-6 months (even if they tell you that batteries last a year), typically a single AA or AAA in the mouse and two AAA in the keyboard. Have spares handy when the old ones give out, so your work flow is not disturbed – it takes only seconds to switch batteries so long as you don't need to go to the store to buy new ones! Yep, it is worth it to lose the cables.

Nancy suggested an addition that can be considered frosting on the cake. Get your system a new mouse pad – it will cost little or nothing. Sure, you can get a free one as a giveaway from any number of stores, but why not spend $3-5 or so for one with a really good looking printed surface? Impress your significant other and make your working area a bit nicer. Do use a mouse pad; it makes for a smoother cursor on the screen.

One more suggestion from wife Nancy. Do some significant cleaning. Oh, not physical cleaning of the computer – that was covered in Cc304 (last July) and earlier in Cc259 and Cc137. Rather, we are talking about cleaning of files to make more storage space, by moving off really old pix from the hard drive onto DVDs, so that there will be more space for pix you burn during the holidays from your cell phone and move to your computer. That way you won't be caught with nowhere to move snapshots of family and friends that you can conveniently access with a moment's notice. And those old pictures will safely reside on DVDs, filed and secure for at least five or more years. Yes, they should last that long or more, in my experience; I have some CDs that are still perfectly readable 24 years after burning (just keep 'em away from light). Need burning software? There are a myriad of excellent, no cost packages, but the one I have found that works simply and consistently and beautifully is BurnAware Free. Get it with a search, after clicking the MajorGeeks URL I embedded earlier in this article. And Happy Computing!

On The Air Activities!

de: Gary Sutcliffe, W9XT

Activity and conditions on the HF bands were really good in October, especially in the first half. The sunspots dropped off in the second half, but conditions don't change much from short-term sunspot count levels. So even with the daily solar flux index (SFI) being at 161 at the start of the month, conditions at the end at 128 were still pretty good. The other part of the equation is the geomagnetic field, which was disturbed at the end of October. More about that later.

DX Reports

As mentioned above, conditions in October were good for working DX. The large number of DXpeditions to relatively rare countries created plenty of targets. I picked up about a dozen new band countries and a few new digital countries. Most of them were on 12 meters. That band has been poor for many years, so I have not had the opportunity to work much DX there.

Gary, K9DJT, worked 229 DX stations in October and says that might be the most DX he worked in one month. He really covered the W8S Swains Island DXpedtion, working them on all bands 160-10 on FT8 and 10, 12, and 15 meters on CW.

Six meters has been a pleasant surprise too. We had several days with openings into South America. K9DJT picked up new countries of Paraguay and the Falkland Islands, which were the ones he was most happy with. I missed them but worked New Zealand for the first time on 6 meters.

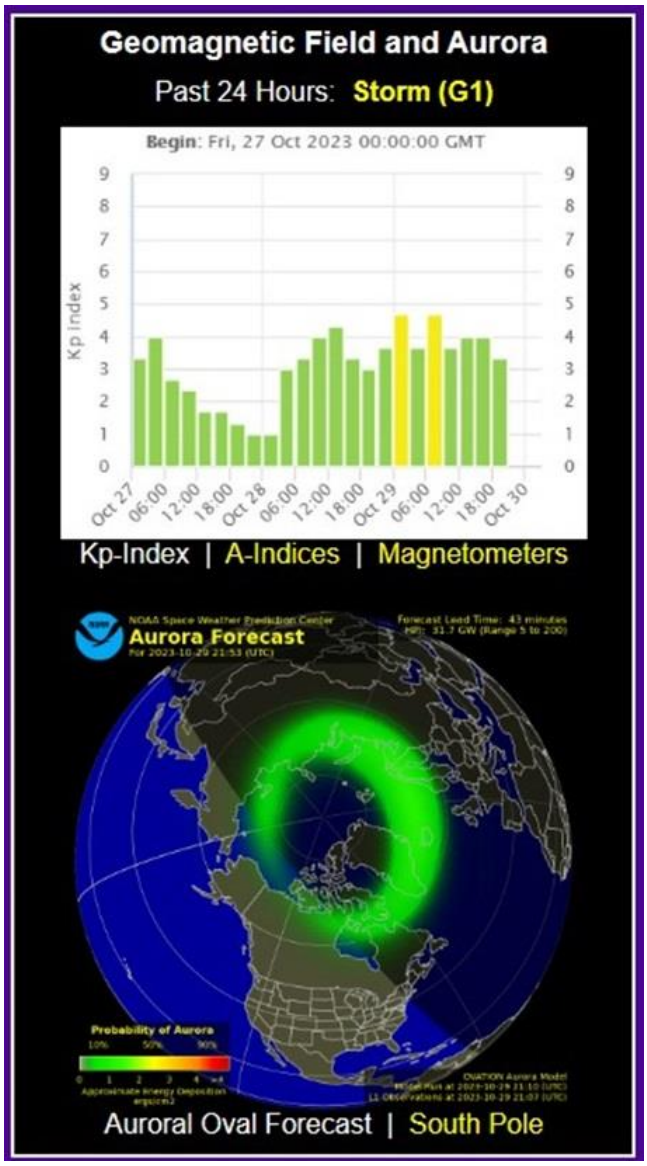
Gary's Paraguay QSO was interesting. I saw Gary working the ZP station on FT8 but had no copy here. Just as I got my first decode, Gary reported he was not getting any decodes anymore. I was getting decodes for a few minutes but could not make a QSO. Meanwhile, Noll, W9RN, a friend of Gary and me in Franklin, was not getting any decodes. Noll finally got a decode at the same time I got my last decode. Later, another friend of mine in Illinois, Mark, N9UM, started decoding the station. The propagation was like a small spotlight that moved south. Six meters is like that.

Gary, N9UUR, also reported a great month of October. He added ten ATNO (All Time New Ones) DXCC countries. Some of them were worked on four or five bands. Gary goes on to say that he never heard of some of the places he contacted. He and Jeananne have a large world map on the shack wall. He said he and Jeananne were referring to it constantly.

Gary said the W9ODD DX cluster was a big help in finding new ones he needed. It is linked into his logging program to identify needed countries. He also mentioned using PSKReporter to see where the band was open, plus DXSummit for additional DX reporting.

Thanks to Gary and Gary for sharing their DX accomplishments this month. You don't have to be named Gary to work DX, but apparently, it helps!

CQWW Phone



K Index during CQWW Oct 28-29 (UTC) weekend.
From solarham.net

Last month, I suggested you check out 10 meters during the CQWW Phone contest on October 28-29. I promised the band would be packed with European stations from 28.300 through at least 29.000 MHz mid-morning. Well, if you did, that is probably not what you heard. Was Gary lying, or just didn't know what he was talking about?

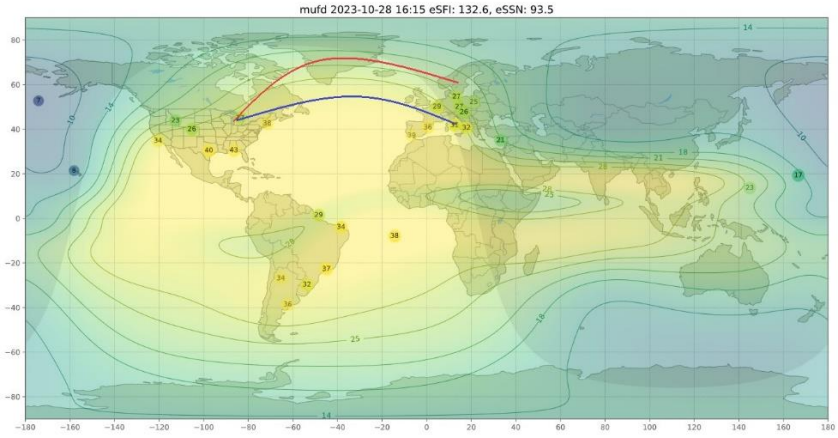
Well, I was not lying, and you must decide for yourself on the latter question. But the 10 meters band was packed with Europeans. We just could not hear them here in Wisconsin.

The problem was that the geomagnetic field was disturbed along with some drop in the solar flux. The drop in solar flux reduced the MUF, the maximum useful frequency. That is the highest frequency where the ionosphere refracts signals back to Earth. A disturbed geomagnetic field expands the auroral zone over the poles, which results in the absorption of signals on polar paths to Europe and the Far East.

Signals that don't go through the polar regions are not affected much. In fact, a small jump in the K index can temporarily improve conditions in non-polar paths. The chart shows the K index over the CQWW weekend. Values of 0-1 mean good conditions, and 3-4 are poor conditions. Values of 5 or more indicate bad conditions and can result in visible auroras.

Ionosondes are special instruments that send radio signals straight up and look for reflections back from the ionosphere. They sweep the frequency during data acquisition. The highest signal frequency returned is called the Critical Frequency (Fo). This frequency will be much lower than the MUF. For example, on Monday morning of October 30, Fo was about 7.7 MHz, compared to a 300 km MUF of 25.8 MHz at the Alpena, MI station, the closest one to us. MUFs are calculated from Fo.

As you can see, the K index jumped up shortly after the start of the contest. Any signals that travel through the green aurora zone will be attenuated. The disturbance was caused by coronal holes allowing charged particles from the sun to reach us.



MUF chart from prop.kc2g.com. Great circle paths (red and blue lines) were added by the author. The dots with numbers are reporting ionosonde stations with the calculated MUF above them.

The lower solar flux reduced the MUF somewhat. The second graphic shows MUF on Saturday morning, October 27. The MUF chart is sort of like air pressure on a weather map. This map is created from data from ionosondes located around the world.

There are ionosonde stations around the world, but there are areas with few stations and none in the middle of the oceans. The MUF charts use interpolated data, so you should take them with a grain of salt. However, they do give a valuable estimation of current propagation paths.

I added the paths from SE Wisconsin to Finland and Italy with red and blue lines. If you follow the path to Finland, you see it crosses into areas where the MUF is around 22 MHz, so it would not support 28 MHz 10 meter signals, even if the disturbed aurora zone didn't absorb the signals.

Signals to Italy follow a more southern route, and the MUF was above 28 MHz. Most European stations I worked that weekend were to western countries like France and Spain and southern ones like Italy with lower latitude paths. I worked very few stations in the northern or eastern parts of Europe.

On the other hand, the East Coast had a larger range of paths that avoided the auroral zones and were running stations we could not hear. For the record, some were operating over 29 MHz, and I did work a few stations over 29 MHz, so the band was packed. Just not here.

As you can see, the MUF to the south is much higher. The sun ionizes the atmosphere more in the tropics in the same way it heats the air more in lower latitudes. Signals to South America were strong.

I only worked one Scandinavian station, one in Finland. Sometimes, we get openings to the northern part of Europe in the early afternoon after their sunset. If I don't work stations in Norway, Finland, Sweden, etc., during the regular daylight opening, I make a point to listen for that opening.

In the end, I was disappointed. I had 50 fewer QSOs than in 2023. I ran low power, 100 watts, which made it more difficult.

The CW weekend of CQ WW is coming up at the end of November. Will conditions improve by then? Hopefully, but we have one thing working against us. The sun rotates once every 28 days. That means that what we see now can return in a month. But things change. We might have more sunspots, and maybe the coronal hole that caused us fits during the phone weekend will disappear. Cross your fingers!

FCC Activity

A couple of things are on the FCC agenda in November. The first is the deadline for filing comments on the 60 meter band has been extended to November 28. Currently, the 60

meter band is channelized and has a power limit of 100 watts PEP ERP. The FCC proposes replacing the five channels with a single 16 kHz wide band with an ERP of only 9.15 PEP watts.

The ARRL proposal is to add the new 16 kHz segment, keep the current four channels outside that segment, and leave the power limit at 100 watts PEP ERP.

The ARRL urges all amateurs to file comments with the FCC supporting the ARRL plan. More information can be found at https://www.arrl.org/60-meter-band.

The other item of interest is that the FCC will finally vote on the proposed changing the rules governing digital signals. Our current regulation is based on symbol rates. This goes back to post-WWII when the only digital type mode was RTTY.

Technology has improved, and many clever methods have been developed to squeeze more data in narrow bandwidths. Regulations that are based on bandwidth are long overdue.

The new rule would allow modulation techniques confined to a 2.8 KHz bandwidth. Such a regulation would encourage the development of new technologies for more efficient data communications. More information is available at:
https://www.arrl.org/news/fcc-to-vote-on-removing-symbol-rate-restrictions

Contests

We are into the fall contest season that started with CQWW Phone at the end of October and runs until mid-December.

The ARRL Sweepstakes happen in November. The CW event starts Saturday afternoon on November 4th. The phone event is two weeks later, on November 18. I covered operating that in last month's newsletter. Remember to update your logging program to recognize the new ARRL section multiplier.

The last weekend of November is the CQWW CW contest. The description for the phone weekend in the previous month's column covers this contest.

The ARRL 160 Meter Contest starts on Friday afternoon local time. It is becoming one of my favorite contests. The drawback is that I am not a night person. I usually operate until after European sunrise, a period where signals on the low bands are typically enhanced. I then try to get up about an hour before our sunrise.

We send a signal report, and our ARRL section (WI), but DX stations only send a signal report. Contacts with other W/VE stations are worth two points, and DX stations count for five points. DX stations only work US and Canadian stations. Multipliers are ARRL/RAC sections and DXCC countries.

DXpeditions

October was the best month for DXpeditions in a very long time. Excellent propagation and so many operations kept DXers busy. November will continue with a lot of new DXpeditions.

One that was not on my radar last month was Botswana. A group of European operators will use the call sign A25R. They showed up a few days before the end of October and will be there until November 13.

TJ9MD will be active from Cameroon with over a dozen operators. No one has operated from this West African country since 2018, so there will be a lot of demand for contacts. They will be there November 2-15.

One I need is Cocos-Keeling, an Australian possession. This island group is a tough path from Wisconsin, so I need it on several bands. It is located northwest of Australia and is actually closer to Indonesia than Australia. Unfortunately, the Japanese group using the callsign VK9QO will focus on satellite operation but plan some 80-6M activity. The dates are November 3-7.

A large group of French hams will visit Marquesas November 4-19. The callsign is TX7L. This South Pacific island is in an area with good propagation and should be workable on the low bands through 10 meters.

Another group of French hams are also heading out. Their destination is Laos. They will be operating XW4DX from November 16-27. This is another country that is not frequently on the air. One major disappointment to US hams will be that they will not be allowed to operate on 80 meters. One popular but challenging award is the 5 Band Worked All Zones (5BWAZ). You need to work each of the 40 CQ Zones on the bands 80, 40, 20, 15, and 10 meters. Often, the last zone needed by US DXers is Zone 26 on 80 meters. Laos is in Zone 6 meters.

The main group for the Timor Leste operation, consisting of 20 operators, will last a month, November 5 through December 6. A small advance team was there a few months ago, scouting out the best locations. Timor Leste is a pretty new country, gaining independence from Indonesia in 2002. Civil unrest made visiting the area dangerous for many years of its existence, and ham activity has been infrequent. This operation should have a lot of demand, but a month of activity should allow everyone a chance to get it.

Another operation to an Australian possession occurs from November 21 through December 5. Two Scottish hams will be operating under the call VK9GXM on Christmas Island.

A small group of German hams will be in Micronesia December 4-16. The call sign is V6EU.

These are just the DXpeditions with multiple operators. There are many one person operations. Often, they are part of a vacation while operating during free time, which is sometimes scarce. Also, look for contest DXpeditions for the CQWW CW contest on the last weekend of November. They often arrive well before the contest to set up and operate to get a feel for propagation from the DX location.

A last minute addition was announced just before the newsletter. 708AD (SSB) and 7O8AE (CW/FT8) will be on from Yemen from November 3-16. Yemen has been difficult to work because of little activity. The last big operation there was in 2013.

Events

The only hamfest in the area is the Friendly Fest on November 4 at the Elks Club on Good Hope Road, across from HRO.

That wraps up November. Between the contests and DXpeditions, there is little time for the rig to cool down.

Check the following page for Operating Tips on a Separate Sheet

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W9XT's Contest, Operating, DXpedition, and Special Event Picks for November and Early December 2023

W9XT's DXpedition picks for November and early December 2023					
QTH	**Dates**	**Call**	**Bands**	**Mode**	**Link/notes**
Botswana	To Nov 13	A25R	160-6	CSD	9 stations
Cameroon	Nov 2-15	TJ9MD	160-6	CSD	4 stations
Cocos-Keeling	Nov 3-7	VK9QO	80-6	CSD	Mostly satellite
Yemen	Nov 3-16	7O8AD 7O8AE	160-10	CSD	
Marquesas	Nov 4-19	TX7L	160-6	CSD	4 stations
Timor Leste	Nov 5-Dec 6	4W8S	160-6	CS maybe FT8	http://www.timor-leste-dx.de/
Chatham	Nov 9-22	ZL7A	160-10	CSD	https://www.qrz.com/db/ZL7A
Laos	Nov 16-27	XW4DX	160,40 -10	CSD	
Christmas Is.	Nov 21 - Dec 05	VK9XGM	80-10	SCD	
Micronesia	Dec 4-16	V6EU	160-10, maybe 6	CSD	

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

W9XT's contest picks for November and early December 2023					
Name	**Start**	**Length**	**Bands**	**Mode**	**Link**
Sweepstakes CW	Nov 4	30, work 24	HF + 160	CW	https://arrl.org/sweepstakes
Sweepstakes Phone	Nov 18	30, work 24	HF + 160	SSB	https://arrl.org/sweepstakes
CQWW CW	Nov 25 0000Z	48 Hours	HF + 160	CW	https://www.cqww.comr/rules
ARRL 160	Dec 3, 2200Z	42 Hours	160	CW	https://arrl.org/160-meter

Dates/Times in UTC. Subtract 6 hours from UTC to get local (CST). HF = 80, 40, 20, 15, 10 Meters

W9XT's operating & event picks for November and early December 2023			
Event	**Dates**	**Details**	**Link/notes**
Friendly Fest	Nov 4	Elks Club, 5555 W. Good Hope Rd, Milwaukee	https://www.arrl.org/ham-fests/friendly-fest-1

Vintage Amateur Radio

de Bill Shadid, W9MXQ

As I write these installments about vintage amateur radio equipment, sometimes it is easy to get lost on their interesting and even innovative appearance and lose sight of what they were really like to sit in front of and operate. To that end, more and more installments will be on the use of the radios.

At W9MXQ, vintage are setup and run on what right now is a two to four week schedule, depending on how much I enjoy using them. This month I will cover a family of radios from my long time love affair with all the many products from The Hallicrafters Company. To begin that series, we will talk about using the premier Hallicrafters ham radio station from the mid-1960, the HT-44 Transmitter and SX-117 Receiver – along with the several accessories that were marketed with the pair.

The Hallicrafters HT-44 and SX-117 Station

W9MXQ Photo

While you see the above picture as the main station and the subject of this article, it also included a very capable Linear Amplifier, the HT-45 “Loudenboomer.” The HT-45 was made by a Hallicrafters subsidiary, Radio Industries, Inc. Hallicrafters main offices and most manufacturing was in Chicago. Radio Industries was in Kansas City, the home town of Hallicrafters’ corporate owners, Northrup Aviation. Here is the complete station set up at W9MXQ when the HT-44 and SX-117 are operating with the matching amplifier:

The Entire Line Supporting the SX-117 and HT-44

(The Hallicrafters Bread and Butter Line in 1964)

W9MXQ Photo

- **Hallicrafters HT-45 HF Linear Amplifier – far left**
- **Hallicrafters HT-44 HF Transmitter – second from left**
- **Hallicrafters PS-150-120 Power Supply/Speaker – second from right**
- **Hallicrafters SX-117 VLF,LF and HF Receiver – far right**
- **Hallicrafters HA-8 Splatter Guard – atop the HT-44**
- **Hallicrafters HA-1 Electronic Keyer – atop the PS-150-120**
- **Hallicrafters HA-10 LF Tuner – atop the SX-117**
- **Astatic D-104 Microphone and UG8 PTT Desk Strand – out front, left**
- **Vibroplex VibroKeyer Single Paddle Key – out front, right**
- **Hallicrafters P-45 Power Supply (for HT-45) – out of sight, below the desk**

The entire station, HT-44, SX-117, and HT-45 covered the 80-10 meter bands only. Some general coverage was available in the SX-117 only (see later in this article). The HT-45 Linear Amplifier was “legal limit’ in RF power input, as defined at the time of its marketing in the 1963/1964 time frame. It was rated at 1,000 watts input – before the time, a bit later when it was agreed that 1,000 watts could be defined as average power input. That small phrase, “average input,” gave rise to the term, “2,000 watts PEP input.” That is a whole different subject.

A strong competitor to the Collins S-Line 32S-3 Transmitter, 75S-3 Receiver, and 30L-1 Linear Amplifier, the “Hallicrafters Twins[1],” as Hallicrafters fans knew them, would operate separately or could transceive with the Receiver VFO controlling the operating frequency. The desk layout of the Collins and Hallicrafters were very similar, except that the HT-45 Linear Amplifier was not self-contained. Unlike the single unit Collins 30L-1 Linear Amplifier, the HT-45 relied on the floor or shelf mounted Hallicrafters P-45 AC Power Supply unit.

Hallicrafters was a study in different technologies in the late 1950's and 1960's. Where Collins opted for tight bandwidth mechanical filters[2] in the S-Line Receiver i-f filters, Transmitter signal generators, and KWM-2 series Transceivers, Hallicrafters had a mixture of phasing and crystal filter[2] signal i-f and signal generation. In the case of the SX-117 Receiver, however, Hallicrafters chose to stay with tried and proven capacitor-inductor tuned circuit filters in place of mechanical or crystal filtering.

The receiver performance differences were rather dramatic and showed positives and negatives for both the different technologies used.

Receiver Bandwidth Selection
Hallicrafters SX-117 Receiver vs Collins 75S-3 Receiver[3]

Received Bandwidth	Mode	-6dB (Hz)	-60dB (Hz)	Shape Factor (Calculated)
Hallicrafters SX-117 Receiver	SSB	2500	11000	4.4:1
	CW	500	3000	6.0:1
	AM	5000	15000	3.0:1
Collins 75S-3 Receiver[4]	SSB	2100	4200	2.0:1
	CW	200	1250	6.3:1
	AM	4500	25000	5.6:1

Like many things in radio design, the above does not tell the complete performance story. Notice that the SSB bandwidth at the -6dB point is wider on the SX-117 than the 75S-3 but only by 400 Hz. That does indicate the clarity of the sound on one vs the other – with the SX-117 theoretically (and in real life, I might add!) being the better sounding radio. Its slightly wider bandwidth lets a wider sampling of the received voice. What does make a significant difference is the -60dB bandwidth. On the SX-117, that -60dB point shows an 11000 Hz bandwidth while on the 75S-3 that bandwidth is 4200 Hz. Those two numbers divided for each radio (such as 11000 / 2500 for the SX-117 = 4.4 and on the 75S-3 it is 4200 / 2100 = 2.0) indicate the Shape Factor of the filter function. A perfect filter would have a Shape Factor of 1:1, that is the -6dB and -60dB would be the same number. While effective, the sound would not be pleasant to this writer's ear. It would restrict some of the sound bandwidth that is pleasant to the ear. At the time of the radios shown here, the aspired Shape Factor was, in my opinion, 2:1.

> *Special Note: Modern DSP and SDR based radios using software to determine filter Shape Factor, can and do attain 1:1 Shape Factor in some cases.*

While both radios were effective in their day, the Collins 75S-3 is most able to be useable in virtually all band conditions of today. The SX-117 would most certainly be more pleasant to the ear – but, alas, that is a subjective statement more to the individual user to determine. For this article and the subsequent use of the SX-117 and HT-44 station setup shown on the first page of the article, heavily QRM loaden bands can overload the

receiver's i-f system. Coming from a time of 200,000 hams when the radio was designed to the 850,000 of today shows that the SX-117 was in keeping with its day in the sun. For the Collins S-Line user (75S-1, 75S-3, 75S-3B, and KWM-2 Transceiver) – in many ways they were ahead of their time. Still, on a nice winter afternoon, rag chewing on 40-meters is definitely more pleasant with the SX-117. And it's warm tones on CW have to be heard to be appreciated. "Every dog has its day," as they say.[5]

Hallicrafters did understand this design issue and took the path they thought best. Actually, the other radio in this group, the Hallicrafters SR-150 HF Transceiver,[6] used a crystal filter in its i-f on receive and transmit. It offered much better selectivity than the SX-117. Perhaps in a bid to hide the shortcomings of the SX-117, Hallicrafters did not publish the -6dB and -60dB selectivity specifications of the SR-150. And, a later model set of Hallicrafters Twins, the SX-146 and HT-46 did use a crystal filter in the receiver and even offered optional bandwidths. Unfortunately, the SX-146 and HT-46 were released at the time when separate receivers and transmitters were losing out to the transceiver in the world's ham shacks.

The HT-44 Transmitter produced 200 watts PEP input on CW, SSB, and AM (25 watts carrier on AM with linear modulation). Output power for CW and SSB was indicated as 100 to 130 watts. (This is per the HT-44 Operating Manual.) The all vacuum tube radio used a matched pair of 6DQ5 Sweep Tubes. These durable tubes had a reputation for solid and dependable performance. The pair in the HT-44 in this article are Hallicrafters branded – meaning they came originally with the transmitter from the factory. That was nearly 60 years ago.

Hallicrafters used the Phasing System to generate SSB signals (and the other modes by the way the circuit was handled. Known for instability and regular adjustment for carrier suppression, Hallicrafters "tamed the beast" and unlike its competition using this methodology, they had the carrier suppression controls inside the top cover – requiring the removal of four top cover screws to access the control. As long as all circuits are working correctly there is no need to access the multiple carrier suppression controls.

The HT-44 Transmitter had one feature that was primary – the ability to allow the VFO in the SX-117 to control the frequency of the HT-44's signal. That meant that the pair could transceive on the receiver's frequency – a feature that the Twins shared only with the Collins S-Line Receivers and Transmitters.

Note: Unlike later separate receivers and transmitters that could transceive together, the Collins S-Line and the Hallicrafters Twins could only transceive off the receiver VFO. Later radios, like the R. L. Drake R-4(x) and T-4X(x), could transceive from either the receiver or the transmitter VFO – at the immediate choice of the user.

It is interesting, from the point of view past 60 years after the SX-117 and HT-44 were offered, to discover that the first SX-117, produced almost a year before the matching HT-44 arrived on the market. The early SX-117 Receivers were found not to be able to match the frequency stability of the later, but matching, HT-44 Transmitter. Referencing

the HT-44 Transmitter Operating and Service Manual will show the procedure needed to modify three circuit areas in the SX-117 Receiver. Necessary parts were provided by Hallicrafters by contacting their Customer Service Department – as described in detail in the HT-44 manual.

> Note: Bob Bailey, W9DYQ, always credited in my articles as proof reader and contributor, owns two Hallicrafters SX-117 and HT-44 sets of Twins. One of these has an unmodified SX-117 which exhibits more stability issues than the one that has been updated (or produced after the time the modification was incorporated into production units leaving the Hallicrafters factory). Bob would tell you that the transceive feature was of no consideration to him, as a 100% CW operator with the SX-117 and HT-44. Bob would attest to the superior CW prowess of the pair and the ease of setting offset when working with the receiver and transmitter operating separately. I can attest to this after using this pair to work several Parks on The Air (POTA) stations on CW with it. In this application, I used the separate VFO's to control receiver and transmitter.

Hallicrafters offered a CA-44 Cable that included a 29-inch control cable (11-pin Octal plug at the HT-44 end and three spade lugs at the SX-117 end). It also included two 29-inch phono cables made using RG-62/U coaxial cable. RG-62/U is 93-ohm cable that is about the diameter of today's RG-8X or LMR-240 coaxial cable. Instructions are also shown in the HT-44 manual for fabricating the CA-44 Cable.

The HT-44 Transmitter did not include a transmit-receive relay to feed antenna signals to the SX-117 (or other) Receiver. However, the HT-44 Manual did include instructions and a parts list to include this feature internally. The chassis was even punched to aid in the installation of the relay and necessary antenna connector line to the receiver.

Both the SX-117 and the HT-44 were very nicely designed inside to allow for easy work on components in most cases. The installation of the antenna changeover relay, for instance, was easy with plenty of interior space for the work. Hallicrafters used nearly 100% clear anodized aluminum for the chassis and internal support areas – using extra thick aluminum to keep attain a high degree of mechanical stability in the VFO area of both radios. Here, however, we come to the weakest link in the radio's design – the aluminum outer cabinet on the SX-117, the HT-44, the PS-150-120, and also the HT-45 Linear Amplifier. (The internal metal parts on the HT-45 were cadmium plated, conversion coated cold-rolled steel). In the 1960's, the production painting of aluminum sheet was not nearly as developed as it is today. Over the years, the pebble-texture, gray color cabinet paint tended to flake off with the slightest provocation. This was also true on other Hallicrafters radios of the era. The paint on this series (and others from Hallicrafters at the time) are all in very good condition – due to the previous owners' care and my own. Over time, I have matched the paint and used very small amounts to touch up problem areas and paint chips when they appear. The new paint not only matches the old application, but it also adheres much better to the surface and even prevents such damage from spreading.

> Note: Collins S-Line radios also used painted aluminum cabinets. However, Collins

equipment from that period do not suffer from the same original paint issues as do Hallicrafters radios from the same time.

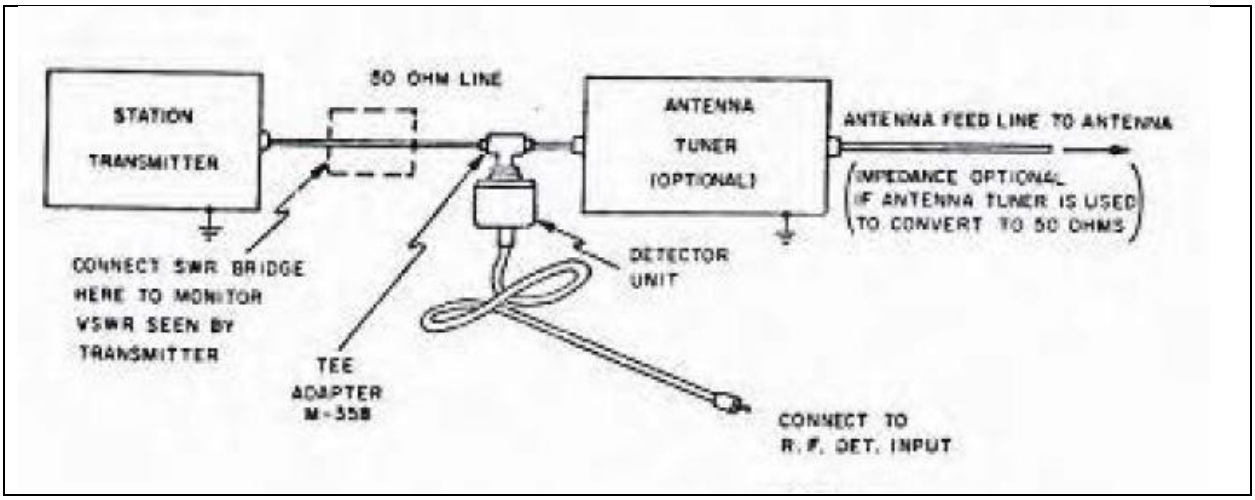
The SX-117 and HT-44 station could be equipped with several different accessories to expand the operational ability of the station. Described here, in my personal order of importance, are the HA-8 Splatter Guard, the HA-10 LF (Low Frequency Tuner, and the HA-1 Electronic Keyer.

The HA-8 Splatter Guard

The HA-8 can be thought of as a modulation monitor. While not as capable as using a monitor scope (or specially connected oscilloscope), it did focus the user on monitoring the peak power of his/her signal. Note this front panel view:

This is the Hallicrafters HA-8 Splatter Guard
Sitting atop the PS-150-120 Power Supply/Speaker
W9MXQ Photo

The HA-8 is installed in the feedline after the transmitter (or linear amplifier, if one is used) but before any antenna tuner. The SWR Bridge, if one is used, should be before the HA-8 in the feedline. Here is the installation, direct from the HA-8 Installation and Operation Manual plus information on the Detector Unit, a separate assembly that was included with the HA-8 when purchased:



And here is a close-up of the Detector Unit, shown in the diagram, above:

Hallicrafters HA-8 Detector Unit
(Hallicrafters Part Number 150-005631)

W9MXQ Photo

These Detector Units were shipped with the HA-8 and included the coaxial “T” Adapter and a long length of Phono Cable – as shown above. The picture is an original Hallicrafters part number 150-005631 unit. They are ultra rare with collectors paying outlandish prices to get one. The one in the picture was found in my junk box. For this picture., I do not show the original Amphenol coaxial “T” connector installed as received. Shown is a modern day, AIM brand connector. When purchased this HA-8, I paid the seller who

wanted a small amount for the connector and said I could have the “little box and wire.” I was pretty sure I knew what it was – and took his offer. I had looked for one of these for many years. Those little detector boxers are almost impossible to find, today.

In the HA-8 Splatter Guard picture, above, you can see that the small screen from the 6FG6 Tuning Eye Tube shows a green indication at both sides of the readout screen. To use the HA-8, tune the transmitter to full power and gradually increase the SENSITIVITY control until the green bars close from left and right to touch in the center. As SENSITIVITY is increased and the two sides meet, a bright bar will show in the center. Now when modulating on SSB, the indicator will go from the sides to the center at full modulation. Adjust MIC GAIN on the HT-44 Transmitter until the bars from left and right just approach each other. If the bars touch and show a bright vertical stripe, the transmitter is just beginning to overmodulate.

The HA-8 works great with power levels of 40 to 1,000 watts output. There is a modification covered in the manual to allow operation down to 10 watts.

The HA-10 LF Tuner

The Hallicrafters HA-10 LF Tuner serves as a Low Frequency Tuner for the SX-117:

This is the Hallicrafters HA-10 LF Tuner
Sitting atop the SX-117 Receiver

W9MXQ Photo

In standard form, the SX-117 Receiver covers from 3.5 to 30 MHz. With the range crystals provided, it covers the 80, 40, 20, 15, and 10 meter bands. Plus, there is a position on the bandswitch to cover WWV at 10.0 MHz in a band that can hold a range crystal to

allow coverage from 9.5 to 10.0 MHz. (That crystal is optional – as are range crystals from 28.0 to 28.5, 29.0 to 29.5, and 29.5 to 30.0 MHz.)

> Note: Radios in the 1960's were often missing coverage of the entire 10-meter band, but did provide for optional, additional coverage with the addition of proper band range crystals. At that time, the common portion of 10-meters with the most activity Was 28.5 to 29.0 MHz – in the General, Advanced, and Extra Class allocation for AM and SSB. After the updates to the Technician Class License to include a 28.3 to 28.5 AM and SSB allocation, the common area of 10-meters changed – leaving some radios unable to make contacts with the newly dominant portion of the band.

The SX-117 was perfectly able to cover frequencies down as low as 85 kHz. However, its internal front end was not designed to tune that low. For coverage below 3.5 MHz, the use of the HA-10 LF Tuner was required. The HA-10 provided the front end tuned circuitry to allow coverage of those low frequencies.

For all non-ham band coverage (at the time) on the radio, a bank of four 500 kHz range crystal sockets was just behind the left side of the front panel – behind the XTAL SELECTOR switch. Not to be confused with crystal control of the radios, these allowed ranges of coverage anywhere from 85 kHz to 30 MHz in four user selected ranges. The oscillator for those crystals was in the radio – but the vacuum tube for that oscillator, a 6EA8, was not supplied. To be useable, the tube had to be installed in the provided socket.

The XTAL SELECTOR switch has five positions – the first being NORMAL, meaning the extra coverage crystals were not used. Then there were the four selectable crystal positions (numbered 1 through 4). Positions 1 and 2 could accommodate crystals allowing radio operation between 85 kHz and 14 MHz. Positions 3 and 4 could accommodate crystals allowing radio operation between 14 MHz and 30 MHz.

All was not roses with the HA-10 – it accommodated many amateur operators wanting to:

1. Listen to the Broadcast Band
2. Listen to 160 Meters
3. Have access to HF Shortwave Bands

The downside of the circuitry surrounding the HA-10 was that it fed the SX-117 Receiver after the front end RF Amplifier. So, while the SX-117 on the 80-10 meter bands could provide 0.5 uV Sensitivity on SSB and CW (1uV on AM), it could only provide 5 to 10 uV Sensitivity from 85 kHz to 3.0 MHz. (The circuitry in the HA-10 was only active in this range, from 85 kHz to 3.0 MHz.)

Just for clarity, the use of the HA-10 LF Tuner does require additional range crystals to be installed in the one, or more, of the range crystals controlled by the XTAL SELECTOR. However, the choice of those four crystal positions does not depend on the use of the HA-10 for frequencies of 3.0 MHz, and above.

The HA-1 Electronic Keyer

Hallicrafters provided for the CW operator with the HA-1 Electronic Keyer:

This is the Hallicrafters HA-1 Electronic Keyer
Sitting to the right of the HT-44 Transmitter
Shown with a Johnson Speed-X Key and Bencher BY-1 Iambic Paddle
W9MXQ Photo

The HA-1 was developed for use with an earlier generation of Hallicrafters equipment in the form of the SX-111 Receiver and the HT-37 Transmitter[6]. A later version of the HA-1 Electronic Keyer, the model HA-1A, is identical except that the two knobs match those on its partner transmitter, the HT-44.

> Note: There is no other difference between the HA-1 and HA-1A other than the knobs. In fact, many hams using their HA-1 with the later Hallicrafters models, bought the later knobs to make their keyer match their radio. These knobs today are extremely rare and nearly impossible to find in good condition.

More correct would be to use the Vibroplex VibroKeyer Single Paddle Key in this application. But I use the current vintage Bencher Iambic Key because I like its feel. If you look at the picture at the beginning of this article, you will see the radio with the more period correct Vibroplex. The Speed-X Key shown is really there only to key the transmitter for tune-up.

Users of modern electronic keyers should note that electronic keyers from the 1960's were not Iambic[7].

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

A special note of thanks to my proofreader, Bob Bailey, W9DYQ. Bob is a lot more than a proofreader as he nearly always adds commentary that makes it into the article. The SX-117 and HT-44 are also one of his favorite radio setups. Bob is a very nearly 100%, CW operator.

Credits and Comments:

[1] "Hallicrafters Twins" as a term from collectors usually means the HT-44/SX-117 pair that would operate as a transceiving pair or as separate units. Hallicrafters followed the HT-44/SX-117 with the much less well known HT-46/SX-146 pair only about two years after the two or three life cycle of the original. The HT-46/SX-146 also would transceive off the SX-146 VFO or operate separately. Unlike the HT-44/SX-117 that used Phasing SSB Generation in the transmitter and tuned circuit receiver bandwidth control in the receiver, the HT-46/SX-146 pair both used crystal filters for those functions. While the later unit had a superior system in both units, the pair, looking back, seem not to have caught on with the amateur market.
[2] While mechanical filters and crystals are completely different devices, for our purposes here, they serve the same purpose for tight and effective bandwidth control and signal generation.
[3] Information is from individual Operating Manuals of the models shown. The Shape factor shown is calculated from bandwidth data provided in the respective Operating Manuals.
[4] There were other CW and AM bandwidth filters optionally available for the Collins S-Line Receivers.
[5] "Every Dog Has Its Day," is defined as: Everyone, even someone of low social status, has a moment of glory or an opportunity for revenge. Source of this explanation is: https://writingexplained.org/idiom-dictionary/
[6] I used an SX-111 Receiver and HT-37 Transmitter – and have written about them. They exist today with a friend of mine not too far away.
[7] I am not an expert on Iambic vs non-Iambic keying. I can, and do, use both but it takes me a bit to "get in the groove," so to speak, when changing between them. Let's let Microsoft Bing's AI Assistant describe it. I asked for it to "Describe Iambic Morse Code Keying." Here goes:

Iambic keying, also known as “squeeze keying,” is a method used in Morse code operation. It requires a dual lever paddle, with one lever dedicated to sending dits (short signals), and the other lever dedicated to sending dahs (long signals). Here’s how you can use it:

1. **Dits and Dahs**: Pushing the paddle one way sends a string of repeating dits, and pushing the paddle the other way sends a string of dahs[2].
2. **Squeezing**: An “iambic” keyer uses two paddles side by side and therefore lets you press both at once (this is known as “squeezing” them). In this mode, dits and dahs will alternate.
3. **Alternating Dots and Dashes**: If both paddles are squeezed at the same time, the keyer responds by sending a series of alternating dots and dashes. The rhythm of these alternating dots and dashes is referred to as “iambic,” which comes from poetry where an “iambic meter” is a rhythmical pattern of alternating stressed and unstressed syllables.
4. **Starting Element**: The alternating dashes and dots begin with the dash if squeezed first on the dash side of the paddle and dots if opposite to that.

One more question for Bing’s AI expert had to with something you will encounter in modern keyers – that is, Mode A Iambic and Mode B Iambic. Here goes that explanation:

> Iambic mode A and mode B are two types of keying for Morse code using dual lever paddles. In mode A, the keyer will finish with the last dit or dah that it was sending and stop. In mode B, the keyer will add one more dit or dah opposite to the one that it was sending and stop. Mode B has dot or dash memory, while mode A does not. So, the difference between mode A and mode B is what happens when you release both paddles.

Upcoming Events

de: Tom Trethewey, KC9ONY

11/04/2023 – Milwaukee - MRC91 Friendly Fest
https://www.arrl.org/hamfests/friendly-fest-1

11/05/2023 – Neenah - Fox Cities Amateur Radio Club, Inc (FCARC) Hamfest
https://www.arrl.org/hamfests/fcarc-swapfest-9
https://www.fcarc.club/hamfest.php

Ozaukee Radio Club Minutes of Membership Meeting – 10/11/2023

de: Ken W9GA, Secretary

The monthly ORC meeting occurred at the senior center as we have returned to live in-person meetings, along with a streaming version held via Zoom. ORC President Bill K9GN began the meeting at 7:30 PM, with actual members attending, a go-around was conducted. Zoom attendees were also in attendance and were also introduced. Brent, KD9YYK was introduced, as a new member and new ham, and was congratulated. Mike KD9GCN mentioned that he had brought several of the QSL cards he received from the recent Lighthouse event.

Program:

Bruce W9FZ and Janice KA9VVQ travelled down from Minneapolis to give a program on VHF roving activity, and their exploits over the years. They mentioned Andrea K2EZ, who runs a rover that operates from 160M up to 10 GHz. Janice showed different configurations of rover setups and talked about rig and antenna choices. Being mounted on a car or truck, small yagis, and omni antennas were best choices. Also mentioned were operating events like the contests, and POTA , State QSO parties and the like. They also showcased some of their more memorable roving experiences.

50/50 Raffle: This was won by Ken W9GA ; winning an award of $22.00 [thanx Steffi!]

Scholarship Auction: no auction held.

Committee reports: [there were no 1st VP, Tech, and PGM reports.]

K9GN did report that there are several ORC items, or 'swag' that are available; see N9VSV.

RPT VP: KC9ONY said that our 222 site is functioning better, thanks to W9DHI.

Treasurer: Gary N9UUR talked about some hiccups wherein our accounts at Cornerstone bank had been moved over to Horicon bank. [who purchased Cornerstone] Initially showing zero balances, they were corrected, and our money is 'safe.' Gary also proposed that some of our money in a MM account be moved into a CD for better return; the amount of $5000 was suggested. Current balance sheets were motioned to be accepted by W9DHI, 2nd by KC9FZK and the motion passed.

Secretary: W9GA reported that the August 2023 minutes, plus the Sept 2023 meeting [via K9GN, N9VSV] were posted, a motion to accept was made by K9QLP; 2nd by KD9DRQ & carried.

Scholarship: W9JI reports that there is little interest in the High Schools due to no lack of funds from large industrial donors; but found that the West Bend library could use help in funding STEAM kits. [the added A meaning 'Arts']

OLD business: W9IPR thanked everyone for helping with the fall Swapfest. Attendance was up 25% from last year, and the club profit was $650. He also saw good participation from newer club members. W9JI remarked that the ID information to join the zoom version of the meetings was the same for every meeting and did not change.

NEW business: No new business

Adjournment: WB9RQR moved to adjourn, W9DHI 2nd, motion carried; time end was 9:08 PM. There were 27 in-person attendees, 11 zoom attendees.

Respectfully submitted;

Kenneth Boston W9GA, Secretary

This Month's Meeting: November 8, 2023 - 7:30 PM
Program: An Update on HF Trading Activity

de: Jeananne Bargholz, N9VSV

What is HF Trading Activity? Reasons, Implications and Where this Appears to be Headed. Join us for an important, timely presentation from Carl Luetzelschwab, K9LA, ARRL Director of the Central Division.

Carl Luetzelschwab, K9LA, began short wave listening in the late 1950s. He received his Novice license (WN9AVT) in October 1961, and selected K9LA in 1977. Carl is an electrical engineering graduate of Purdue University and was an RF design engineer for Motorola and Magnavox/Raytheon until his retirement in 2013. Carl enjoys propagation research, DXing (he's at the Top of the Honor Roll), contesting (he was Editor of the ARRL's National Contest Journal {*NCJ*} from 2002-2007), playing with antennas and restoring/using vintage equipment.

He and his wife Vicky AE9YL enjoy traveling, which has included DXpeditions to Syria (YK9A in February 2001), to Market Reef (OJ0/AE9YL and OJ0/K9LA in July 2002) and numerous trips to the Cayman Islands (Vicky is ZF2YL and Carl is ZF2LA). He has written monthly propagation columns for *WorldRadio* and *NCJ* and has written solar and propagation articles for many other Amateur Radio publications. In his spare time, Carl writes and manages his website -- k9la.us -- that offers a wealth of information on propagation.

Carl was the Vice Director of the ARRL Central Division from 2017-2021. He now serves as the Director of the Central Division and is on several of the ARRL committees.

Upcoming Meeting Programs:

December 13, 2023, 7:30 PM
Gregg Lengling, W9DHI
Club 220 Repeater System, History and Upgrades 1988 to Present

January 10, 2024, 7:30 PM
Annual Meeting/Election of Officers

February 14, 2024, 7:30 PM
Jeananne Bargholz, N9VSV
Amateur Radio-Related Philately (Stamp Collecting)

Creating a Presentation

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.

Not sure how to approach talking about a subject? Never used PowerPoint? No problem, I would be happy to help you get your talk ready for the club.

Please consider sharing some of your experiences with the rest of us. If you have an idea and would like some help putting a program together, contact Jeananne at iamn9vsv@wi.rr.com.

ORC Meeting Agenda

November 8, 2023

1. 7:15 – 7:30 PM
   Check-In and Introductions
2. 7:30 PM Call to Order:
   President Bill Greaves (K9GN)
3. Announcements, Bragging Rights, Show & Tell, Upcoming Events, etc.
4. Carl Luetzelschwab, K9LA
   An Update on HF Trading Activity
5. President's Update:
   Bill Greaves (K9GN)
6. 1st VP Report:
   Jeananne Bargholz (N9VSV)
7. Repeater VP Report:
   Tom Trethewey (KC9ONY)
8. Secretary's Report:
   Ken Boston (W9GA)
9. Treasurer's Report:
   Gary Bargholz (N9UUR)
10. Committee Reports
11. OLD BUSINESS
12. NEW BUSINESS
13. Adjournment

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This Month's ORC Meeting
Hybrid In-Person/Zoom Meeting
8 November 2023

Program:
Carl Luetzelschwab, K9LA
ARRL Director, Central Division,
HF Rules Petition
Shortwave Modernization Coalition

An Update on HF Trading Activity

7:00 PM – Doors Open

7:15-7:30 PM – Zoom Check-In

7:30 PM – Meeting Begins

NEXT MONTH
Hybrid In-Person/Zoom Meeting
13 December 2023

Program:
Gregg Lengling, W9DHI
Club 220 Repeater System
History and Upgrades, 1988 to Present