



# The Signal Report

A Publication of the Greenwood Amateur Radio Society (GARS)

VOLUME 19 ISSUE 8

AUGUST 2021

[HTTP://WWW.W4GWD.ORG](http://www.w4gwd.org)

[W4GWD@ARRL.NET](mailto:w4gwd@arrrl.net)

## 2021 CLUB

### OFFICERS

#### President

Russell Myrick, KN4TUI

#### Vice President

Tommy Owens, K4XB

#### Secretary

George Crane, W3RXF

#### Treasurer

Tedd Davison, AI4WN

#### Repeater Trustee

Buddy Willis, W4DEW

#### Activities Manager

Mitchell Litwer, KJ4JGP

#### Editor in Chief

Michael Wills, KA4CSM

#### Librarian

Jack Witt, KN4SIK

#### The W4GWD Repeater Network

147.165+ t107.2

Echolink: 584003

443.900+ t107.2

**W4GWM/R**

145.420- DV

**W4DEW/R**

146.910- t123.0



Analog Repeaters are up.  
DMR and D-Star are up.  
Echo link is down, continuing to undergo technical evaluation.  
Repeater Linking Project-Linked during nets and special occasions

## August 2021

The Greenwood Amateur Radio Society (GARS) is pleased to announce that we are resuming our in person meetings on August 10, 2021. The location will change to the Wesley Commons Library, 1110 Marshall Road, Greenwood, SC. We will continue to hold our meetings on the second Tuesday of every month at 7:30 p.m. at this location until further notice. A big thank you to George, W3RXF for arranging this.



## Greenwood Amateur Society Recurring Events:



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### Chat 'N' Chew

Every Friday around 11:15 a.m. the members of the Greenwood Amateur Radio society meet at a local restaurant. Please feel free to join us and wear a mask if you would like. Locations will vary from week to week and will be announced on the weekly nets. *See you there!*

### Weekly Nets

Each Thursday night at 9pm on the 147.165+ machine, The Greenwood Amateur Radio Society holds our weekly 2 meter net.

Our UHF net on 443.900+ is held Mondays at 8pm

Help spread the word for everyone to check-in to our nets. If you would like to fill in or be a backup net controller please contact [Tedd Davison](#)

### VE Exam Session

The next GARS ARRL Volunteer Examiners (VE) session is scheduled for Oct. 5, 2021 in the Wesley Commons Library, 1110 Marshall Rd, Greenwood, SC.

## Congratulations!!

### Happy Birthday!

|                  |        |         |
|------------------|--------|---------|
| Mike Wills       | KA4CSM | Aug.9   |
| David Strawhorne | KG4WDS | Aug.12  |
| Darrell Manning  | AF4E   | Aug. 31 |

### Happy Anniversary!

|  |         |
|--|---------|
| David (N4WDC) & Regina Collins             | Aug.12  |
| Mitch (KJ4JGP) & Diantha (N4DLL)<br>Litwer | Aug.15  |
| Jerry (K04NNR) & Krystal Smith             | Aug. 31 |

**Are you an ARRL Member? Joining ARRL helps protect our rights as Amateur Radio Operators as well as providing education, QSL Bureau, technical advise, and the ARRL VEC. <http://www.arrl.org>**

# Presidents QSO



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Starting on a somber note, the passing of W3COX Jim, our club has another Silent Key. Jim Cox was active in many areas of the community, one being Amateur Radio. He contributed much in this area sharing his knowledge, experience, enthusiasm and encouraging others to join in the fun. We will miss Jim and ask you to remember WB3LNX Karla and their family as they adjust to life without him.

On a positive note we are pleased to announce in-person club meetings begin Tuesday August 10<sup>th</sup> at 7:30pm in the Library of Wesley Commons. We appreciate W3RXF George, GARS Secretary, for arranging and coordinating this with the administration of Wesley Commons.

So, plan to attend this meeting restart. We have 44 active licensed members. I encourage each of you to come. Remember, every member brings value to the group and has knowledge to share with others. Always plenty to learn, so don't be bashful about asking questions or doing some "Show-and-Tell" sometime. For those members still cautious and concerned about Covid-19, we respect that and understand if you prefer to defer attending meetings.

Speaking of learning, it's not too early to prepare for that license upgrade. Our VE Sessions restart 7:00pm Tuesday October 5<sup>th</sup> in the Wesley Commons Library. Also a good time for our VE's to locate your VE Credentials, dust them off and review the process and protocol for an orderly and effective VE session. For members interested in becoming a VE please see <http://www.arrrl.org/become-an-arrrl-ve> Always in need of additional VE's. And there is always a need for additional Net Controllers for our Monday and Thursday evening nets. If you are interested in calling a net routinely or as an alternate please contact one of the current net controllers.

Interest and participation in the Weekly Chat-n-Chews is picking up. Always listen to our nets as to the location and time of this weekly Dutch Treat. A good time for fine food, fellowship and you might even pick-up some how-to of amateur radio.

It's middle of HOT HOT Summer with a reasonable amount of rain recently. The grass, weeds and other undergrowth are taking over at the SCETV Tower at 146 Tower Road, Ware Shoals SC 29692. If you are ready willing and able and have some yard equipment please keep your eyes and ears open for W4DEW Buddy call for the next groundskeeping date.

I would like to recognize our new Activities Manager KJ4JGP Mitch. I'm sure he would welcome on topics you would like to see & hear OR present at a monthly meeting. My thanks to each of the officers, net controllers, newsletter contributors/editor, all committees for making this a productive club.

In the words of the memorable Forrest Gump, "That's about all I got to say about that".

*Russ*, KN4TUI



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Jim Cox, W3COX passed away on 7-16-21. Jim and the contributions he made to our club will be greatly missed. We extend our condolences to Karla, WB3LNX and to the entire Cox family.

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Contact Ethan Poole, KW4EK at ehpoole@earthlink.net for more information on VE testing in Anderson on the 8th of August at 1pm, Courtesy of Russ, KN4TUI

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Soldering irons for antennas



[https://m.youtube.com/watch?fbclid=IwAR2eZpsxxBiFnvsMVyBnB-yLgvSgH-ny\\_O2aeFSc3ntH9yB6kVRXSzf7rL4I&v=bfA7NtNe0qg&feature=youtu.be](https://m.youtube.com/watch?fbclid=IwAR2eZpsxxBiFnvsMVyBnB-yLgvSgH-ny_O2aeFSc3ntH9yB6kVRXSzf7rL4I&v=bfA7NtNe0qg&feature=youtu.be)

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History of the CQ (call), courtesy of Al , kb4ra@outlook.com

[https://en.wikipedia.org/wiki/CQ\\_\(call\)](https://en.wikipedia.org/wiki/CQ_(call))



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## HOW I SPEND MONEY



## HAM GEAR



I'm posting this with a heavy heart... 😞

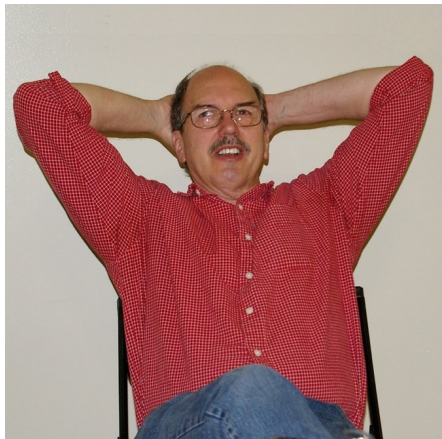
As much as I love being a radio amateur, collecting radios , and amplifiers, it takes up too much of my time and I am struggling to keep up with the everyday basics such as cleaning and maintaining my home, so something has to give. I will be getting rid of my collection.

Below is a list of what's available. Serious inquiries only.

Thanks for reading and understanding...

1. Dustpan and brush
2. Sponges
3. Febreze spray
4. Mop and bucket
5. Window cleaner
6. Vacuum
7. Dishwashing liquid
8. Laundry detergent
9. Fabric softener
10. Laundry baskets
11. Toilet brush
12. Cleaning sprays
13. Scrubbing brushes

# GARS Member Pages



CQ CQ DE Kevan Nason, N4XL of Greenwood, SC. I support Ham radio locally by having given many presentations to GARS and clubs in the surrounding area, as well as several groups across the US via Zoom. I am a VE, member of ARES, standby Net Control operator for GARS, and a hospital volunteer for radio communications. My radio passion of the last 15 years has been HF contesting which uses over 95% of my time on the air. I have improved enough to have many first place wins in Region 4 and top 10 finishes nationally.

My low power HF shack is configured for Single Operator Two Radio (SO2R) contesting with two TS590 transceivers, a Bencher Skyhawk yagi at 50 ft, a 40/80 meter elevated vertical, a 160 meter inverted-L, a 40 meter inverted vee at 35 feet for close in contacts, and K9AY receiving loops for 160 thru 40 meters. On the VHF/UHF side of the shack a Yaesu FT8800R feeds 13 elements on 2 meters and 6 elements on 70 cm which are forty feet up in the air. Hanging at 30 ft is a Ringo Ranger 2 two meter vertical which is connected to an Icom IC2200.

After twenty years of pushing submarines through the ocean, and being assigned to various other nuclear power billets, in 1997 I retired from the U.S. Navy as a Chief Petty Officer. Following that was another 20 years working as a civilian. Employed mostly as a Maintenance Planner/Scheduler, I also spent time as a Multiskilled Maintenance Technician, SAP Computerized Maintenance Management System (CMMS) Coordinator, and Site Manager of a contract maintenance team at GE's Gas Turbine Research and Development Technology Laboratory in Greenville, SC. I took early retirement in 2019 and now enjoy time with my wife, son, two cats, and our dog.

I'm glad to see new people joining GARS and look forward to meeting all of you.

Kevan N4XL





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Some of our members have asked about local options for Ham radio repair, Paul is located in Tucker, Georgia and has not been endorsed by our club. The below link is provided courtesy of Kevan, N4X1.

<http://www.amateurradioservice.com/about.htm>  
<https://www.eham.net/reviews/view-product?id=4587>



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## Article about finding PL tones on spectrum display Courtesy of Mark, AF6DW

A while ago I treated myself to an IC-9700 rig that can do a great many things but for the purposes of this discussion it has an RF spectrum display. After programming it with many of my local repeaters I noticed that I would often see other conversations off to the sides. I would go over to them with the receiver tuner frequency but then realized I had no idea of what repeater it was or the PL in use.

Consider this discussion as a fun 'science experiment' suitable for a HAM Sleuth so put on your Sherlock Holmes hat and stoke up the pipe!

Sure you can just wait for the every 10 minute station ID in audio if lucky or in CW and then web search the callsign or find this repeater on Repeater-Book.com but that is nowhere near as fun to a Ham as figuring it out yourself.

This article is all about the 'fun of HAM' in that you can learn stuff and get a feel for your rig. So get ready for an interesting and fun 'science experiment'! If you zoom in on any QSO on an FM 2M repeater with a rig that has a frequency spectrum display, like the IC-9700 you will see a great many evenly spaced frequency spikes. After a little thought I realized those were the often very strong PL tones that are all in very low frequency. Each spike is spaced by the PL tone.

So the 'trick' being discussed here is how to take a reasonably good guess at the repeater PL tone by looking at your RF spectrum. This trick only works for when the repeater transmits with the same PL tone it requires on the input side but it seems this is mostly the case.

Set your display 'span' to the lowest frequency it will go. 0.5khz on IC-9700

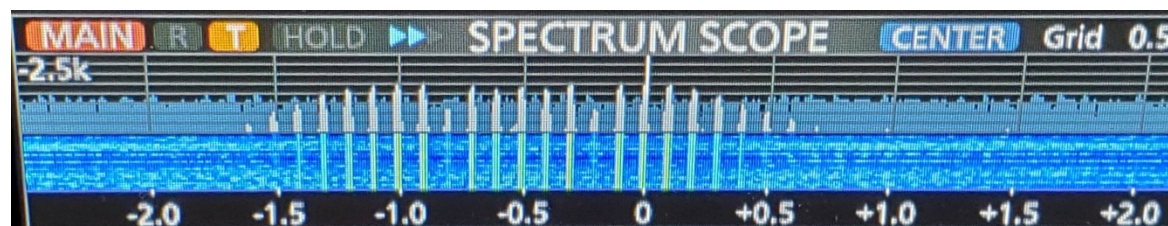
Take a picture or screen shot of when somebody is talking, best if they are quiet at the time.

Judge how many Hz 15 or more spikes take up on the display. The more the better.

Divide the total frequency span by number of spikes you counted

The number you get will be a very close estimate to the PL tone. This is because the PL tone is just a strong but very low audio signal that goes along with your QSO discussion.

Here are some real examples to practice on. We will start with 100hz since it is going to line up nicely with the 500Hz divisions on the spectrum scope.





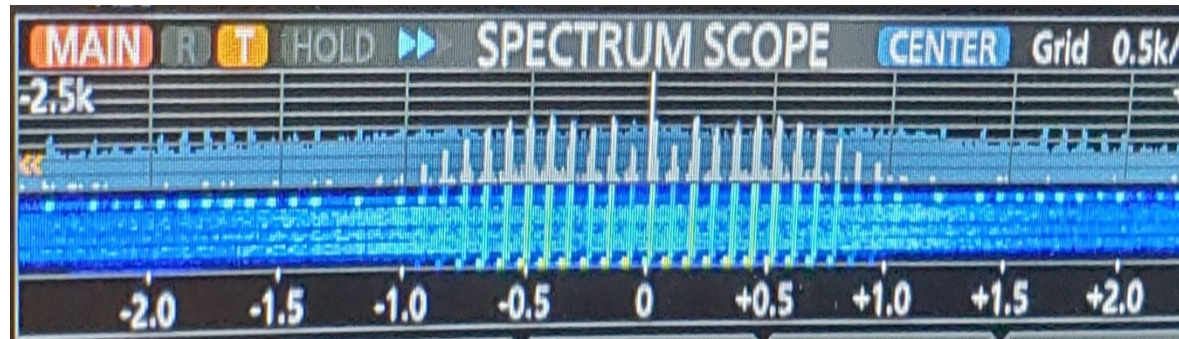


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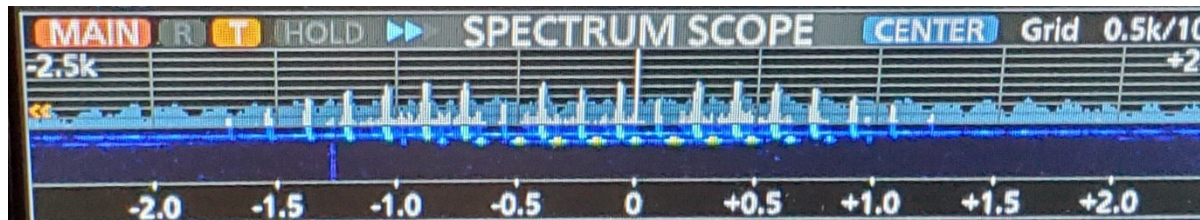
### Example Of A 100 Hz PL Tone

Now lets spice things up with harder to directly judge examples so you have to count some number of spaces of spikes and divide by the total frequency span that number of spaces covered.



### Example Of A 85.4 Hz PL Tone

The more spikes you are able to count the better your accuracy for the PL tone will be. Count at least 10 but it is better if you can count 15 or more since PL tones can be very close in frequency.



### Example Of A 162.2 Hz PL Tone

Next you are ready to setup your rig for this new repeater. In the setup you already know the repeater frequency as the frequency you see the signal centered upon. You can then set your PL tone and frequency properly for this band. You do have to guess if it is + or - input offset and recall that on 2M the repeater offset is 600khz and for 70cm band the offset is 5Mhz. My IC-9700 has a button to push to offset to hear repeater input. If somebody is really close you will hear them at the offset or change your +/- and try again but frankly best to just take a guess and give it a try with a very fast 'ker chunk' with your call sign.

Have fun with this or just look for these spikes on your local FM repeaters and know why they show up so you will have solved yet one more mystery of Ham Radio!

Recommendation for 259 crimpers. Courtesy of Mark,

<https://www.facebook.com/groups/hamops/>

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"No Greg went to the ham auction this afternoon, to get rid of a couple old radios that were cluttering up the place...Oh I think I hear him pulling in now!"

CAN YOU PRESCRIBE  
SOMETHING TO GET  
MY HUSBAND TO  
TALK MORE?

GET HIM A  
HAM RADIO  
LICENSE.



# HAMFESTS & EVENTS

[Shelby Ham fest](#), September 3-5, 2021

[W4DXCC](#) Contest Convention, Pigeon Forge, September 24 & 25, 2021

42nd Annual Lake Hartwell Ham fest sponsored by the Anderson Radio Club, October 16, 2021

Greenwood Amateur Radio Society Ham fest (GARS) January 8, 2022.

[Hamcation](#) , Orlando, Florida 11-13 February 2022,

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- \* The American Radio Relay League protects our rights as Amateur Radio Operators <http://www.arrl.org>
  - \* Support for SERA supports proper coordination! <http://www.sera.org>
  - \* Remember your local and regional interest clubs!
  - \* Southeast DX Club <http://www.sedxc.org>
  - \* Spread the word GARS weekly nets: 147.165 2m Net Thursdays 9 p.m.  
443.900 70cm Net Mondays 8 p.m.
  - \* Callsign info <http://www.ae7q.com>\*
  - \* Track us on APRS: <http://aprs.fi>,
  - \* Swamp Fox Contest Group <http://swampfoxcontestgroup.com>
- 

## Classifieds:

Allen West has an Elecraft K3, 100 watt with autotuner for sale. Very clean and working perfectly from a smoke free environment. He is also looking for a variable transmitting capacitor that can handle 100 watts and vary from 0 to around 500 pf. If you know of one please contact him at his email.

I hope you have enjoyed reading our newsletter. Please contact me at [Mike31406@gmail.com](mailto:Mike31406@gmail.com) to place a classified ad or with any ideas/comments/suggestions etc.

*Mike*

Classified  
may be p