



The Signal Report

A Publication of the Greenwood Amateur Radio Society (GARS)

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AUGUST 2022

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

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

2022 CLUB

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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.

Repeater Linking Project-Linked during nets and special occasions

August 2022

The next GARS monthly meeting will be held in person at the Westminster Presbyterian Church, 2330 Cokesbury Rd, Greenwood on August 9, 2022 beginning at 7:30 pm. The doors will be open at 7:00 pm for members to have a time of fellowship and setup for the meeting. Hope to see you all there. **VE Testing to resume on August 2, 2022 at 7 p.m. at the same location as our club meetings in the Westminster Presbyterian Church. No walk-ins, if you intend to take an exam please preregister with [Buddy Willis, W4DEW](#). Keep in mind if your taking the Technician test that the question pool for level 2, Technician, changed on July 1, 2022.**



Greenwood Amateur Society Recurring Events:



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Chat 'N' Chews

Have resumed Fridays, they will begin gathering at 1115. Kin KJ4BAK will announce locations on both the Monday and Thursday night nets. Dutch treat.

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, AI4WN](mailto:Tedd.Davison@arrl.net).

VE Exam Session

Breaking news VE sessions have been restarted, the next one is on August 2, 2022 at 7 p.m.. They will be held in the same room as our regular meetings at he Westminster Presbyterian church. Please contact Buddy Willis, w4dew@arrl.net with any questions. No walk-ins, please register with Buddy

Congratulations!!

Happy Birthday!

Michael Wills KA4CSM Aug 9

Darrell Manning AF4E Aug 31

Happy Anniversary!

David (N4WDC) & Regine Collins
Aug 12

Mitchell (KJ4JGP)
& Diantha Litwer (N4DLL)
Aug 15

Jerry (KO4NNR) & 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>

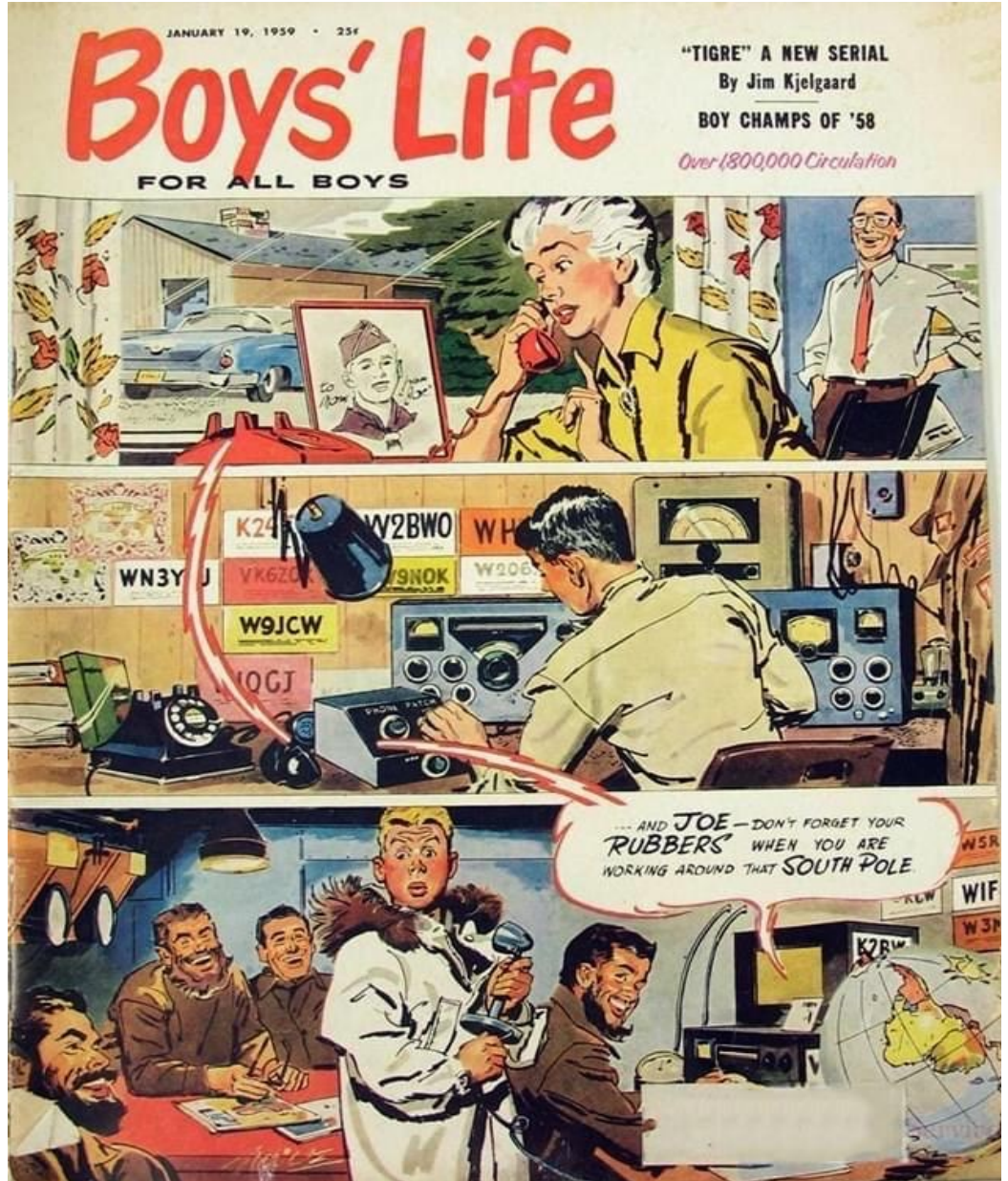


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Dispelling the myth that digital voice modes are all about the Internet!

<https://youtu.be/3xIRNsOYuiw>



Experiences of an operator in the UK chasing DX

<http://m0aws.co.uk/>



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RFI written by Ed Hare W1RFI & shared by Kevan Nason N4XL

The following was posted on the RFI reflector from Ed Hare, W1RFI. Ed is the ARRL's RFI guru. Good info if you want to try and find power line noise. Never tried myself, but I'm going to print this out and put it in a binder for reference. There was considerable chatter with several other useful posts in the thread. You can find the thread here:

<http://lists.contesting.com/pipermail/rfi/2022-June/020562.html>

Kevan N4XL

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{RFI} Power Line Radiated Interference Limits

Power lines are "incidental radiators" as defined by Part 15 rules. As such, there are no specific radiated or conducted emissions limits for the noise they make. The operator of an incidental emitter is required to use it in a way that does not cause harmful interference.

Power line noise exhibits a few characteristics:

Power-line noise level is relatively constant across a particular band, +- antenna resonance. So, when you tune the band, its noise does not get louder, quieter, louder quieter, but is pretty constant across the band. Many other noise sources have noise that peaks every "N" kHz across the band.

Power-line noise has a strong 120-Hz component, although in rare cases, it can have a 60-Hz signature. Put your receiver in AM mode, 6 or more kHz bandwidth, and give a listen. You can also make a .wav or .mp3 file and run it through a free program called 'Audacity' and analyze that spectrum, with the understanding that your receiver bandwidth is usually limited below 200 Hz or so, so that 120-Hz component may be reduced in amplitude.

In the time domain, you may see spikes or a repeating 120-Hz pattern. (Audacity does that, too). The peaks sometimes vary from the nominal 120-Hz, 8.3 MHz, as wind and vibration moves the gap that is causing the noise around.

Power-line noise usually varies with weather, usually going away on rainy days, but sometimes getting worse, and as wind blows lines around, the noise can show variations.

Other devices like switching supplies have peaks and dips up and down the band. Switchers can be drifty, with the frequency of those peaks changing as the device warms up and sometimes doing little jumps as voltages exhibit small surges and dips. If the noise comes on suddenly in response to what people are doing, it is usually a device. Switchers are used in almost every electronic device made today, and they are sometimes confused with power-line noise.



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RFI written by Ed Hare W1RFI & shared by Kevan Nason N4XL
(Continued)

Here are the basic steps to follow:

- o Determine that there is probable cause to think it is power-line noise
- o Contact your power company through its customer-service representatives. The key words are radio interference, television interference or even tell them their help screens could be looking for "noise" or "RTVI."
- o Give it time. In about 25% of the cases we initiate from reports, we hear back a week later saying that the power company was out to fix it.
- o In most cases, the power company does not contact you, although it should. So, no response doesn't mean that it is not being worked on. The new IEEE standard on power-line noise explains why it is important that the power-company staff coordinate with complainants, but that is not in effect yet.
- o If that doesn't work, contact ARRL by filling out the intake form at:

<https://form.jotform.com/212425939918163>

The Lab staff will then run through a process it has worked out with the FCC to first have ARRL try to persuade your power company to work on and fix the problem, then ultimately turn over a well-documented case to the FCC.

**Radio construction is rather like a pilgrimage
where the journey is often more important
than the destination**



Rev George Dobbs, G3RJV



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Winding binocular cores with magnet wire By Kevan Nason, N4XL

In a thread on the Amateur-Repairs reflector started by Doug, WA1TUT, it was mentioned wire used to wrap binocular cores sometimes shorted when the enamel was worn off the wire by the hard edges of the core. Here is a solution Charlie, N0TT, uses for the smaller cores like those found in beverage antennas. It is post in post #85832. I had never heard this idea. YMMV and keep in mind the material described isn't designed to withstand much heat so probably good for receive only. Charlie wrote: "On the binocular cores...the "small" ones...I use ordinary plastic soda straws. I first cut them to the same length as the core, then slit them lengthwise, curling them to fit the holes. Trim excess if needed, but allowing some overlap. Works great for me when winding with enameled wire. No scratches ever!"

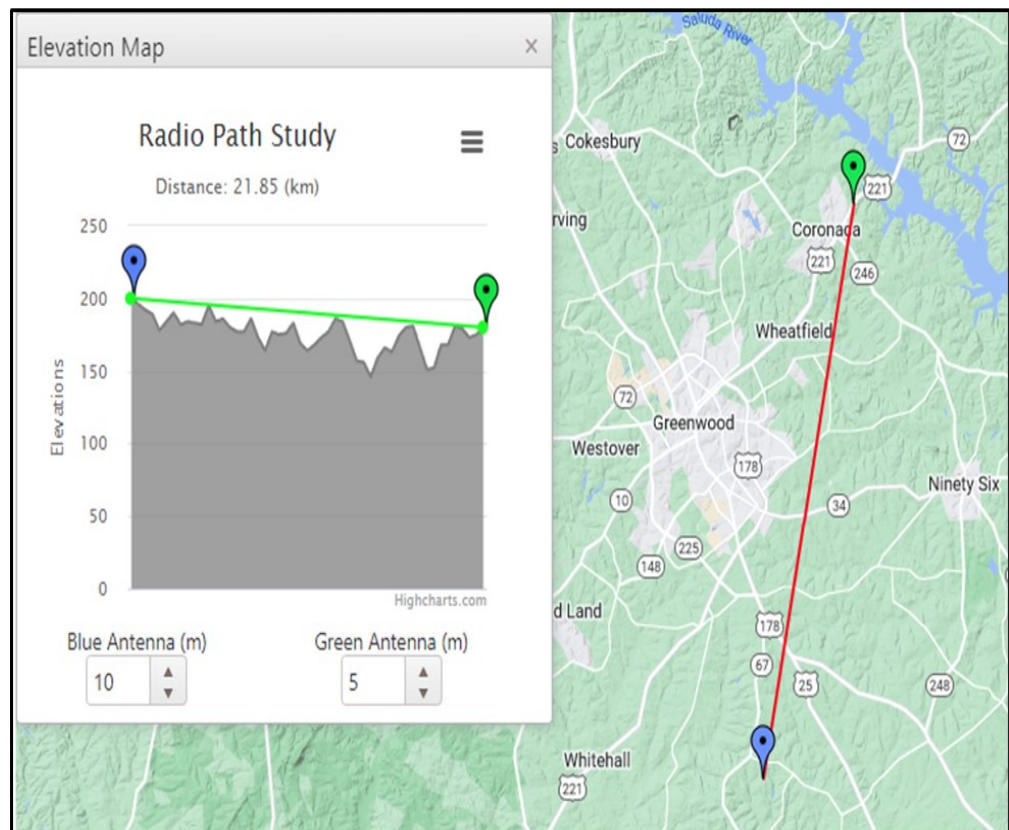




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Line of site tool—courtesy of Kevan Nason, N4XL

Although VHF and higher scatter paths allow for unexpected communication links, a line-of-sight propagation path is needed for reliable simplex operation. The South Carolina ARES page has a link to a RF Line-of-Sight tool which is “...exceptionally helpful in mapping long distance radio communications for remote monitoring applications such as remote shutdowns and data acquisition.” It also works well for determining if a direct path exists between two points. Useful if you are trying to determine if it is possible to contact a control station from a field location during emergencies. Or for things like figuring out if raising your antenna a few more feet might help you clear some terrain feature keeping you from reaching a distant repeater. The website can be found at <https://www.scadacore.com/tools/rf-path/rf-line-of-sight/>. Below is a screen shot showing a path exists from my location south of Greenwood to the hilly area on Hwy 221 as you approach Lake Greenwood from the western side of the lake. The Radio Path Study shows a green line meaning line of site exists. It turns red if not. This path assumes the lake antenna is 5 meters (16 feet) above the ground. If the antenna near the lake is only 3 meters (10 feet) up the path does not exist. Note that obstructions such as buildings and trees are not included in the calculation. Nor can scattering of the signal be determined. Both uncertainties mean that in reality a path may or may not exist. But it still gives you a clearer understanding of your situation and capabilities than you would have had without consulting the tool





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Kiska Island, Alaska, Expedition - QRV July 25th to 31st 2022

<https://www.qrz.com/db/K7K>

So what really happens inside an antenna? By Dave Casler, AD5HQ

<https://youtu.be/EHt2Pio7t4E>

The Radio Amateurs Handbook, 1926

<https://worldradiohistory.com/BOOKSHELF-ARH/Handbooks/The-Radio-Amateur's-Handbook-ARRL-1926-1st.pdf>



Please contact [Jack Witt KN4SIK](#) if you would like to use our library or have any comments or suggestions about it.



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The GARS Meeting held at the Westminster Presbyterian Church, 2330 Cokesbury Rd. Greenwood on July 12 2022 it was attended by 15 with 4 additional on Zoom. Kevan N4XL gave an excellent presentation on part two of “Choosing the best HF antenna”. A discussion ensued concerning turning off the tone on 2 meters and 70 CM during our weekly NETS. FCC requires the tone to remain on for 70 CM, a decision will be made soon on leaving on the tone for 2 meters. Please contact [Russ](#) with any input. David Collins, N4WDC will be giving a presentation on “US Islands on the Air” at our next meeting. See you there.

Our legacy Hamfest is fast approaching on January 14, 2023. We are hoping that Marsha Ridlehuber, KD4AYF will agree, to once again, run the “kitchen.” We need two members , or spouses, to volunteer to assist her. Please let [Ted](#) , AI4WN know if you can assist with this or of any other ideas for Hamfest.

[Buddy](#) W4DEW, [Darrell](#) AF4E and others have done an outstanding job in maintaining our repeater sites for years. For the foreseeable future a contract has been made by the repeater site owners to take over this responsibility. A big **thank you** all for all your hard work.

We are seeking some new net controllers to augment our current ones. A big thank you to all our current controllers for your commitment. Contact any of them for more information on how to join there ranks..



Mitch KJ4JGP is actively looking for operators to give presentations on any aspect of Amateur radio. He is also soliciting ideas and or suggestions on our clubs participation in the STEAM (Science, technology, arts & mathematics) event scheduled here in Greenwood, for roughly 11 am to 3 pm October 2022. Contact Mitch [here](#).

HAMFESTS & EVENTS

[Shelby Hamfest](#), September 2-4, 2022

<https://www.qsotodayhamexpo.com/> QSO today ham Expo September 17-18

<http://w4dxcc.com/> September 23-24 2022, Pigeon Forge

[Gaffney Hamfest](#) October 22, 2022

Greenwood Amateur Radio Society (GARS) Hamfest January 14, 2023

Classifieds

Wire Dipole, unknown length. Will let it go for best offer. Contact [Stephen Lyda](#), KA4PQA for more information



Power Supply, free to good home [Stephen Lyda](#), KA4PQA

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- * The American Radio Relay League protects our rights as Amateur Radio Operators <http://www.arri.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>
-

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

Mike



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Greenwood Amateur Radio Society Silent Key Memorial

Established in Memory of all Greenwood Amateur Radio Society (GARS) Radio Operators who were club members and are now Silent Keys.. They were friends, family, associates and all are missed.

<u>Callsign</u>	<u>Name</u>	<u>Silent Key</u>	
KD4YDI	Hendrix, Todd	3/8/2014	
W4PY	Wise, Warren	2/14/2015	*
KC4KZ	Henderson, Don	4/3/2015	*
KC4WM	Taylor, Alice	12/11/2015	*
KC4IAV	Elledge, Marion	12/27/2015	*
K4GBH	Mimms, Joe	12/29/2015	*
AD4XA	Pruitt, Charles	10/6/2018	
KJ4VJ	Keck, Bert	10/23/2018	*
WW4I	Henry, Phil	1/1/2019	*
KC4UU	Henry, Jo	10/6/2019	*
WB4MLU	Banks, Homer	6/7/2020	
KI4WJO	Mimms, Jewell	7/14/2020	
AK4EK	Gresham, Jim	7/7/2020	*
W3COX	Cox, Jim	7/16/2021	*
WD4BWK	Mitchell, Franklin	9/25/2021	
KB4YON	Keck, Eldora	10/14/2021	
AJ4PU	Haynes, David	11/26/2021	*
N20EE	Wiener, Bob	04/12/2022	*

* indicates GARS member when became SK