

Our new mailing address is:
Greenwood Amateur Radio
Society
P.O. Box 49591
Greenwood, SC, 29649

The Signal Report

A Publication of the Greenwood Amateur Radio Society (GARS)

VOLUME 21 ISSUE 9

SEPTEMBER 2023

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

W4GWD@ARRL.NET

2023 CLUB

OFFICERS

President

Russell Myrick, KN4TUI

Vice President

Kevan Nason, N4XL

Secretary

George Crane, W3RXF

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Buddy Willis, W4DEW

Activities Manager

Di Litwer, N4DLL

Editor in Chief

Michael Wills, KA4CSM

Librarian

Jack Witt, KN4SIK

The W4GWD Repeater Network

147.165+ t107.2

Echo link: 584003

443.900+ t107.2

W4GWM/R

145.420- DV

W4DEW/R

146.910- t123.0



The 2m (147.165) and 440 (443.900) Analog Repeaters are both up.

The GARS D-Star repeater is up.

Repeater Linking: our 2m and 440 repeaters are not linked during nets but will be during special occasions

September 2023

The next GARS monthly meeting will be held at the Westminster Presbyterian Church, 2330 Cokesbury Rd, Greenwood on September 12, 2023 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



Greenwood Amateur Society Recurring Events:



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Chat 'N' Chews

Begin gathering at 1115 at different locations each week. 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 become a net controller or a backup please contact [Kevan Nason, N4XL](#).

VE Exam Session

The next VE testing session is on October 3, at 7 p.m.. It will be held in the same room as our regular meetings at the Westminster Presbyterian church, 2330 Cokesbury Rd, Greenwood SC. Please contact [Tommy Owens, K4XB](#) with any questions. No walk-ins, please preregister with Tommy, K4XB.

Congratulations!!

Happy Birthday!

Happy Anniversary!

Betty Crane	Fmly Mbr	Sept 9	None
David Collins	N4WDC	Sept 13	
Tommy Owens	K4XB	Sept 13	
Earl Powell	KC4AXY	Sept 27	
Carlis Meyers	KG4RIT	Sept 28	



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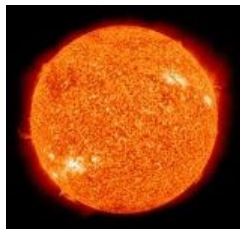
Welcome to the newest members of the Greenwood Amateur Radio Society

Jeffrey Gayle KQ4IUO

David Hicks KQ4JJE



The monthly Greenwood Amateur Radio Society held its monthly meeting on August 8. It was attended by 19 members, 4 guests and 4 on Zoom. Many topics were discussed including the upcoming STEAM festival, a possible new venue for the GARS 2024 Hamfest., (our normal one was already booked and next year will be undergoing a remodeling), a possible location for storing the GARS trailer. We also voted in two new members.



Excellent article on Sun Spots and Solar Cycle 25 —submitted by Kevan, N4XL

<https://www.nesdis.noaa.gov/news/time-lapse-of-solar-cycle-25-displays-increasing-activity-the-sun>



At the August 1, 2023 VE test session Pete Rambo, WB4GRH tested and passed the General exam. He also tested for Extra narrowly missing achieving the required score.



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The GARS ARES (Amateur Radio Emergency Service) group led by Dave, KY4GM met at the Mathews Masonic Lodge 121 Bailey Circle, Greenwood. Dave gave a demonstration on winlink over HF & VHF. Those in attendance included Kin KJ4BAK, Russ KN4TUI, David WT3M, David N4WDC, Vernon KQ4FBT, Kevan N4XL, Stephen KA4PQA & Mitch KJ4JGP. Anyone interested in ARES should contact [Dave, KY4GM](#) for information.

On 8-24, Kevan, N4XL was the net controller on the 2m net and had 27 check-ins. The most I can remember for awhile. I believe one reason for this was he encouraged members to participate in rag chew. This makes the net more interesting for all.

I have tried to get members more involved in the newsletter and make it more interesting by submitting what they have done in amateur radio. It doesn't need to be lengthy, a simple one liner will do. Example:

Dave, KY4GM attended the Huntsville, Hamfest last weekend. He stayed at the Monte Sano State Park with many youtubers that many might recognize.

Mike, KA4CSM made contacts in Estonia, Germany (2) Canada (2), Romania, Spain, Cuba and 8 throughout the states all on FT8 over a 1 hour 30 minute period 8-24.

Submit your one or two liners, articles etc. to [Mike, KA4CSM](#).

AMATEUR RADIO ANTENNA LENGTH CHART					
	FREQUENCY (Mhz)	1/4λ (Feet)	1/2λ (Feet)	1λ (Feet)	1 1/2λ Inv Vee 90° (Feet)
	1.800	130' 0"	260' 0"	558' 4"	257' 5"
	1.850	126' 6"	253' 0"	543' 3"	250' 5"
160 METERS	1.900	123' 2"	246' 4"	528' 11"	243' 10"
	2.000	117' 0"	234' 0"	502' 6"	231' 8"
	3.500	66' 10"	133' 9"	287' 2"	132' 5"
	3.750	62' 5"	124' 10"	268' 0"	123' 7"
80 METERS	3.900	60' 0"	120' 0"	257' 8"	118' 10"
	4.000	58' 6"	117' 0"	251' 3"	115' 10"
	7.000	33' 5"	66' 10"	143' 7"	66' 2"
	7.150	32' 9"	65' 5"	140' 7"	64' 10"
40 METERS	7.300	32' 1"	64' 1"	137' 8"	63' 6"
	10.100	23' 2"	46' 4"	99' 6"	45' 10"
30 METERS	10.150	23' 1"	46' 1"	99' 0"	45' 8"
	14.000	16' 9"	33' 5"	71' 9"	33' 1"
	14.150	16' 6"	33' 1"	71' 0"	32' 9"
20 METERS	14.300	16' 4"	32' 9"	70' 3"	32' 5"
	14.350	16' 4"	32' 7"	70' 0"	32' 3"
	18.068	12' 11"	25' 11"	55' 7"	25' 8"
17 METERS	18.168	12' 11"	25' 9"	55' 4"	25' 6"
	21.000	11' 2"	22' 3"	47' 10"	22' 1"
	21.200	11' 0"	22' 1"	47' 5"	21' 10"
15 METERS	21.450	10' 11"	21' 10"	46' 10"	21' 7"
	24.890	9' 5"	18' 10"	40' 5"	18' 7"
12 METERS	24.990	9' 4"	18' 9"	40' 3"	18' 6"
	28.000	8' 4"	16' 9"	35' 11"	16' 7"
	28.500	8' 3"	16' 5"	35' 3"	16' 3"
10 METERS	29.700	7' 11"	15' 9"	33' 10"	15' 7"
	50.000	4' 8"	9' 4"	20' 1"	9' 3"
6 METERS	54.000	4' 4"	8' 8"	18' 7"	8' 7"
	144.000	1' 8"	3' 3"	7' 0"	3' 3"
2 METERS	148.000	1' 7"	3' 2"	6' 9"	3' 2"



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We've Been Invited Back: iMAGINE Lakelands STEAM Festival

GARS has been invited to participate in the iMAGINE Lakelands STEAM Festival scheduled for **Saturday, October 21, from 10:00 a.m. – 2:00 p.m.** in uptown Greenwood.

The iMAGINE Lakelands STEAM Festival is designed to showcase PreK-12 education and career pathways in Science, Technology, Engineering, Arts, and Mathematics (STEAM) through fun, hands-on learning for families from across Abbeville, Edgefield, Greenwood, Laurens, McCormick, Newberry, and Saluda Counties.

This is a highly visible street festival that engages companies, schools, and non-profits in providing exciting, interactive STEAM learning exhibits for PreK – 12 students and their families. The purpose of the festival is to ignite the interest of students in STEAM learning and career pathways.

iMAGINE is a program of South Carolina's Coalition for Mathematics and Science (SCCMS) at Clemson University.

Last year over 100 people visited our booth and learned about GARS, Ham radio, and Morse Code.

Our GARS booth introduces kids (and adults) to Morse Code. In addition to learning how to convert the letters in their first names into Morse Code, and tap out their names on a real Morse Code key, festival participants can also tap out "SOS SOS CQD CQD -- MOY" just like the radio room operators on the sinking Titanic. Participants can also make a necklace or bracelet with their names in Morse Code.

Club members DO NOT have to know Morse Code to participate in this event. [Contact me](#) Di if you have any questions/suggestions.

Hope to see you there Di, N4DLL



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Ham Radio Horizons—Sept. 1977

[Ham-Radio-Horizons-09-1977.pdf \(worldradiohistory.com\)](http://worldradiohistory.com/Ham-Radio-Horizons-09-1977.pdf)

Please contact [Jack](#) Witt KN4SIK if you have any comments or suggestions the GARS library. It is there for GARS members use. The Wall locker is unlocked. If you'd like to checkout a book, find one you like and take it, then email Jack your name and its title.



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Operating tips from Kevan, N4XL

Unlike VHF/UHF FM signals, you are NOT required to operate on exact frequencies when using HF. Some new operators believe you must operate on a frequency with a whole number such as 3850.0 or 28437.0. Not true. Some newer rigs come from the factory with defaults set so the frequency changes in 1 KHz steps. That has led some newer hams to think frequencies with whole numbers are required. For most rigs, that can be changed in the menu system to use 0.1, 0.01, or sometimes even 0.001 KHz steps. It is perfectly normal for people trying to find a frequency in a crowded band to use 3852.5 KHz or some such. For CW communications a 0.2 KHz spacing is normal – as in 7032.2 or 21008.6 KHz.

July SC Net Reports (latest data, from SC Section Manager, NJ4Z)

Net / Check Ins / Traffic / Sessions / Reported By
 Anderson Radio Club 2m Net / 500 /32 /30/ W3SUE
 Big Ears Aynor Repeater/49/0/5/KD2OJQ
 Blue Ridge 2 Meter Net / 1679/ 45 / 31 / W4DJW
 C.A.R.E.S. Net /38/1 /4/N6WWG
 Carolinas Net / 293 / 91 / 62 / AA4MP
 Carolinas Slow Net / 103 / 15 / 31 / KI4KZS
 CARC Sunday / 126 / 18 / 5 / KU5N
 CARC Simplex / 20 / 0 / 2 / KU5N
 FARC/52/7/5/ WB6GUE
 Greater Pee Dee 2m Net /822 /59 /30/KK4KSZ
 Greenwood ARC 2m Net /64/ 4 / 4 / N4XL
 Greenwood ARC 70cm Net/ 36 /4 / 4 / N4XL
 Horry Co. ARES 2m net /4/1/1/ AC2LB Horry Co.
 ARES simplex net/ 8/1/1/WB4FTU
 Horry Co. ARES Drill / 10/ 1 /1/ AC2LB
 Kershaw ARC 2m Net / 87/ 15 / 10 /KK4RUI
 Lancaster County 2m Net /39 / 0/ 5/ N4WMB
 PALS Net /797/ 38 /31/ KK4MQN
 SC ARES Statewide HF Net /58/ 6 /4/ KN4KRZ
 SC Midland ARES Training Net/ 56 / 16/ 4 /KN4KRZ
 SC Heart Training Net /178/ 0 /4/ KQ4KK
 SC SSB Net 978 / 70 / 31 / KG4RUE
 South Carolina VHF/UHF ARES Net / 316 / 2 / 5 / KI4RAX
 Sumter County EmComm Net/33/4/3/KK4HFG
 Trident Amateur Radio Club / 38 / 9 / 4 / K4TCP
 YCARS/871/ 0/ 47/KO4ICI YCARS ARES/ 47/ 0/ 4/ /KO4ICI



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Forwarded by Di, N4DLL

Dear Roanoke Division Members:

Many of you have written to me and to Vice Director Morine about FCC RM-11953, which would allow data communications up to 20 KW on multiple bands within the HF 2 – 25 MHz range, including in bands immediately adjacent to frequencies allocated to the Amateur Radio Service. The group requesting this rule calls itself the “Shortwave Modernization Coalition” and appears to represent high-speed stock trading interests. The ARRL Laboratory is conducting potential interference tests, which will shape ARRL’s official response. Comments are due to the FCC on this matter by July 31.

ARRL takes very seriously any potential threat to spectrum allocated for Amateur Radio use. In the last few years there has been renewed interest in HF frequencies for commercial and military applications because of their long-distance propagation characteristics. RM-11953 is one of several proposed rules on HF spectrum which ARRL has followed and commented upon in recent years. Spectrum defense is a key component of advocacy for which ARRL fights.

Once the Lab completes its analysis on potential interference, ARRL’s Washington legal office will file comments with the FCC before the July 31 deadline. This issue will be a major discussion point at the ARRL Board of Directors meeting in Connecticut next week. In the days ahead keep looking at your email for further guidance on how best you can respond to this matter. More than ever, your membership in ARRL is appreciated.

73,
Jim Bohner, N2ZZ
ARRL Roanoke Division Director





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Introduction to the NTS and Passing Traffic, submitted by Di, N4DLL
taken from the ARRL

The National Traffic System (NTS) is an organized network of amateur radio operators sponsored by the American Radio Relay League for the purpose of relaying messages throughout the U.S. and Canada.

Under NTS there are four levels of nets: local, section, regional, and area.

Passing traffic refers to formal messages sent, received, and delivered via ham radio.

Messages (traffic) are usually relayed using a system of nets.

Both hams and non-hams can send and receive traffic, i.e., brief personal, non-commercial messages such as birthday greetings, congratulations, get well soon messages, etc.

Messages are transcribed in a standard format called a radiogram and must be transmitted, received, and delivered exactly as transcribed.

Radiograms are relayed from ham to ham using voice transmission, Morse code, radio teletype, and packet.

An NTS operator who lives fairly close to the recipient delivers the message via telephone, mail, email, or hand delivery.

During disasters or emergencies, traffic to and from the impacted sites is passed through the local, section, regional, and area nets, using radiograms to communicate critical information about the welfare of people and property.

During disasters or emergencies, the NTS (National Traffic System) works with ARES and other disaster relief organizations.

Hams in foreign countries can also pass traffic to hams in the U.S., subject to international treaties governing "third party messages."

How to become an NTS Message Handler

Any Amateur Radio license holder can become an NTS operator. To get started, you first might want to read about general NTS system operations, standard net procedures, and the radiogram format at <http://www.arrl.org>.

Then, tune in to a NTS local net (check the ARRL net directory at <http://www.arrl.org/FandES/field/nets/>) and listen at least once to the entire net. This will give you a sense of how the NTS nets are conducted and how the operators communicate. A next step might be to practice copying the messages you hear being relayed. (You would do this without checking in to the net.) The copying process will help you become familiar with the radiogram form.

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Introduction to the NTS and Passing Traffic, from ARRL

Then, when you're ready, simply check in to any local net when the net control asks for check-ins. Be sure to mention that this is your first check-in to an NTS Net. (You'll find the other operators eager to help and very patient.) Remember that your participation is always voluntary. Even if you check in, you don't need to handle any traffic if you don't want to.

And remember, NTS message handling skills are valuable in other volunteer services, including ARES and RACES. Additional information on NTS is available at <http://www.arrl.org> Sources: "What is the NTS?" from <http://www.arrl.org>.

"Talking About Traffic" from *On the Air* magazine, August, 2023.

ARRL Message form

[DEFINITIONS \(bloomingtonradio.org\)](http://bloomingtonradio.org)

HamSCI Presents *The Solar Eclipse QSO Parties* – October 14, 2023, and April 8, 2024 submitted by Di, N4DLL

Join with thousands of your fellow amateurs as part of the largest crowd-sourced contest for ham radio scientific exploration ever! The SEQP is for learning more about how the ionosphere works. Use any mode, any band for all or part of each day! *Participation can be from everywhere* – you need not be near the path of either eclipse to contribute valuable data by participating. For details on the SEQP contest and rules go to www.hamsci.org/contest-info.

For the Gladstone Signal Spotting Challenge using CW, WSPR and FST4W modes go to www.hamsci.org/contest-info.

If you're an SWL or AM DX'er, there is an event for you as well! Go to www.hamsci.org/mwrecordings/.

HamSCI serves as a means for fostering collaboration between professional researchers and amateur radio operators. It assists in developing and maintaining standards and agreements between all people and organizations involved. Its goals are to advance scientific research and understanding through amateur radio activities and encourage the development of new technologies to support this research.

For more information about HamSCI, please visit the HamSCI [website](#). For more information about the Festivals of Eclipse Ionospheric Science educational opportunities for the amateur community and the public please visit our [information pages](#).

HAMFESTS & EVENTS

[Shelby Hamfest](#), September 1-3 2023

[W4DXCC Convention](#) , September 29-30, Pigeon Forge, Tennessee

71st [Rock Hill Hamfest](#), October 7, 2023

Aiken County Ham Radio Tailgate, October 14, 2023, 8-2Pm,
[contact talarcpost26@gmail.com](mailto:talarcpost26@gmail.com) for more information

Greenwood Amateur Radio Society (GARS) Hamfest, January 13, 2024

CLASSIFIEDS

Nothing submitted



- * 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, & fellow hams and all are missed. Page 1 of 2

Call	First name last name	Date of Death
KK4WJQ	Cynthial Penman	Saturday, February 25, 2023
WB4KXE	Harvey Hill	Friday, October 07, 2022
W8PC	Bob Skutt	Friday, July 22, 2022
N2OEE	Bob Wiener *	Tuesday, April 12, 2022
AJ4PU	David Haynes *	Friday, November 26, 2021
KB4YON	Eldora Keck	Thursday, October 14, 2021
WD4BWK	Franklin Mitchell	Saturday, September 25, 2021
KE4NL	Bill Sargent	Sunday, August 29, 2021
W3COX	Jim Cox *	Friday, July 16, 2021
KC4JUC	John March	Tuesday, June 22, 2021
KI4WJO	Jewell Mimms	Tuesday, July 14, 2020
AK4EK	Jim Gresham *	Tuesday, July 07, 2020
WB4MLU	Homer Banks	Sunday, June 07, 2020
KC4UU	Jo Henry *	Sunday, October 06, 2019
WW4I	Phil Henry *	Tuesday, January 01, 2019
KJ4VJ	Bert Keck *	Tuesday, October 23, 2018
AD4XA	Charles Pruitt	Saturday, October 06, 2018
KG4WRC	Don Finlayson	Monday, March 13, 2017
N4IDL	Jack Wheless	Tuesday, January 17, 2017
KN4D	Max Sisson	Saturday, November 12, 2016
K4GBH	Joe Mimms *	Tuesday, December 29, 2015
KV4IAV	Marion Elledge *	Sunday, December 27, 2015
KC4JWM	Alice Taylor *	Friday, December 11, 2015
K4FPF	Paul Valentino	Saturday, May 23, 2015
KC4KZ	Don Henderson *	Friday, April 03, 2015
W4PY	Warren Wise *	Saturday, February 14, 2015
KD4YPI	Todd Hendrix	Saturday, March 08, 2014
KD4BKV	Margaret Fort	Monday, September 16, 2013
KF4Y	Jim Long	Thursday, November 10, 2011
WA4DLB	Harry Davis	Thursday, November 11, 2010
W4GSW	Gay Willis *	Wednesday, August 11, 2010
K4DOK	Morton Sanders	Tuesday, June 15, 2010
W4LSDR.	George Miller	Thursday, August 13, 2009
W4JAK	Allen Kennemore	Monday, June 29, 2009
KC4IEL	Brenton Bailey	Friday, May 15, 2009



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Call	First name last name	Date of Death
KE4QQS	Stanley Green	Saturday, September 27, 2008
WA4TNO	George Fort	Tuesday, June 10, 2008
KA4OPC	Paul Savage *	Thursday, January 10, 2008
KD4BBZ	Richard Gillian *	Friday, February 02, 2007
K4HAN	Ancel Ouzts	Wednesday, June 21, 2006
KB4CK	Guy Copland *	Monday, April 17, 2006
K4HIH	Richard Addison	Saturday, April 15, 2006
KG4LEZ	James Shiles *	Sunday, January 01, 2006
KC4GZV	Walter Davis	Sunday, May 16, 2004
KA4PQA	Odel Lyda *	Thursday, September 25, 2003
WA9FWO	Franklin Kolar Jr *	Saturday, August 09, 2003
WD4JOU	Walt Spearman *	Monday, June 30, 2003
W4WQM	Margaret Duchett	Thursday, June 19, 2003
KC4MQA	Elbert Shirley	Sunday, January 12, 2003
KB4BUR	Nell Spearman *	Sunday, November 17, 2002
KC4CMF	Fred McKinney *	Thursday, April 04, 2002
K4QMY	Dan Hammett	Friday, September 28, 2001
KC4ZJP	Cecil Sutton *	Thursday, January 25, 2001
WA4JOS	Robert Buffington	Saturday, August 12, 2000
WV4B	Glen Jennings	Friday, January 14, 2000
K4VIA	Earle Gillian *	Monday, January 12, 1998
KC4JWL	James Taylor *	Monday, January 13, 1997
KC4LSN	JR Labron Jones *	Thursday, March 21, 1996
WA4TME	Brenda Fort	Tuesday, October 25, 1994
KD4EHP	Anne Miller	Thursday, March 24, 1994
W8MID	Jack Mc Guffee	Monday, September 07, 1992
N4LTL	James Wellmaker	Tuesday, February 05, 1991