

WX4CAR



Newsletter

September 2023 - Issue 1



Welcome to
the Mountains
of Cherokee
County Ga!

In this Issue:

Message from the President
Marty Buehring—KB4MG

Events
Chad Cone —KY4KP

Hardware
Bruce Barkley—K40TX

Gear
Dave Jensen—W7DGJ

Tech Talk
Coming Up
Contesting



Message

from the President



This is our inaugural WX4CAR Newsletter for the CARS Club and we have high hopes it will be the first of many to come! We are really excited about finally getting this started. The success of this newsletter, and ultimately the club, depends a lot on you the members. We know that you all know a lot about a lot of topics. So, we will be asking for people to contribute their knowledge and expertise to add the needed articles and share the knowledge across the club. Great content will make the newsletter a must-read.

In this first issue, we will have an article written by **Bruce- K4OTX**, about his experience with choosing a mobile rig. It is a well-written product review of the Retevis RT95 dual band radio. I think you will find this a really great read and may be a basis for you to decide on a mobile rig.

Chad Cone - KY4KP updates us on the coming events in his column that covers the events and calendar.

We also have a contributed column by **Dave Jensen – W7DGJ**, the author of the “Trials and Errors” column found on QRZ.com. Dave is very interested in helping clubs be successful and has offered to provide an ongoing column for our newsletter. Thank You Dave!

One of the purposes of the newsletter is to capture the ongoing history of the club. The archive of newsletters at other clubs tells you a lot about who they are and where they are going. We think that CARS has a rich history and we want to preserve that for new members and even future generations. Be a part of our history and participate whenever and wherever you can.

The newsletter replaces the monthly email blast we usually send the week before the meeting. It will be your go-to place, together with the club website, to see what is happening, see what you may have missed, and make plans to be a part of future events.

Membership in the CARS club has grown significantly over the past few years. Each month we will try to highlight new members so we can get to know them better. We can also highlight significant events, activities, and achievements of our members. We will count on you to report these to us so we can recognize them.

We have two more events coming up that will be opportunities for new hams to get on the air. We have **Fall Picnic at Red Top Mountain State Park** scheduled for October 7th. Because the park is a registered entity for **Parks On the Air (POTA)**, we can run a station (or two) and allow people to experience that part of the hobby as well. In January we will participate in **Winter Field Day**. Be watching for details on that and consider joining us this year.

Finally, be thinking about someone you may want to nominate for a club officer position. We begin our election cycle at the October meeting and have voting in November. This ensures that the new officers will have at least 6 weeks of overlap with the existing officers and make a smooth transition. Nominations can be in person, by email to the club email address, or regular mail to the club address.

Thank you for being a part of such a great club!

73,

Marty – KB4MG

Events



Event Roundup

With Field Day in the rear-view mirror, it's time to mark your calendars for upcoming events. Our Fall picnic will be held October 7th at **Red Top Mountain State Park**. We chose **picnic shelter 4**, the location of our last club POTA activation. From I-75, take the Red Top exit East. Once you cross over the lake you will take the 3rd left following the signs for the beach. We will be located on the hill behind the guard shack. We will begin setting up at 10am with lunch around noon. We will be running multiple stations to allow everyone a chance to get on the air and complete an activation. If you are interested in POTA, this is your opportunity to enjoy some great food and see what it's all about. If you have items in the shack collecting dust, bring them to the picnic for our swap shop. The leadership team would like to encourage everyone to attend and enjoy food, fellowship and fun.

Our **SET (Simulated Emergency Test)** is scheduled for October 14th. This yearly event is another opportunity for everyone to validate their station preparedness and equipment operation. If we are needed to support an event, it's important to know our equipment and capabilities. When the lights go out it's too late to start preparing. Stay tuned for more information.

Winter Field Day is just around the corner. Planning has begun and reservations have been made. The event will be held **January 27th and 28th at Red Top Mountain State Park**. Once again we will be running a POTA activation along with Winter Field Day. More details will follow as we approach the event.

As with all club events, you are welcome to bring family and friends. We look forward to seeing everyone at the Fall picnic and would like to thank you for being the best part of **CARS**.

73,
Chad Cone
KY4KP





Hardware

Mobile with the RETEVIS RT95

For some time, I have been looking for a mobile radio that could meet the demands I valued and would also check boxes on fundamental needs for mobile and ARES applications. The radio must have 2 meter and 70 cm, reasonable power and go easy on the wallet. Other considerations were to have an acceptable memory bank for traveling within the southeast. As luck would have it, I discovered just the radio that checked all the boxes on Amazon prime day which we'll get to further shortly. Enter the Retevis RT95 which looks identical to the Anytone AT-778 and share many functions.

The Retevis RT95 is a full 2m and 70cm radio with 200 channels available to put in your favorite repeaters. To help with install you'll find that the color LCD screen is rotatable 180 degrees via internal settings. You can also program the keys to what you want at your fingertips. Three power selections at 25W/15W/5W. The radio is programable via CHIRP.

About that Amazon prime thing, currently you can get it at the time of this writing for \$124.99 with free shipping if you do the Amazon thing. If you wait till Prime days this was available for \$99.00 which the XYL approved of without much scrutiny. Now for the not so good part. Programming of the radio was easy once you understand the new version of CHIRP ,or CHRIP-next which is good once you understand the new version and calm your nerves from frustration. My radio came with the programming cable which note that earlier versions did not and was an additional cost. Now for the weird part. I had to go in and jail break the radio to cover full spectrum for USA use where I only noticed

the issue on 70cm. This again was very easy to do thanks to the YouTube channel from TheSmokinApe. Once through the hoops it's time for testing. You'll notice that the power cable has 2 inline fuses only on the positive side which threw me off as an error by the factory but confirming with the seller this was normal. You get two 10A fuses, why not just use one 20A-who knows? I'm no electrical engineer but simply an appliance operator with most things.



Once in the Jeep I feed the radio with a Comet SS-680SB antenna. The antenna has spring base and great SWR plots, excellent product but back

to the radio. I was checked into the WX4CAR local net and Mark, Chad and Jason giving good reports on signal quality. Receive seems to be excellent as I can hear the Pine Log repeater on good days all the way down to the Braves stadium.

I have to say that in a world full of \$300-\$650 dual transceivers, let this Retevis RT95 be recognized for giving us a quality radio that's easy to understand, packed with great features for the price and great performance. This radio is ideal for the new ham just getting started, perhaps your first mobile setup like me or you just need an extra radio-right? I think Retevis has a new fan, thanks for reading.



73,
Bruce Barkley
K4OTX

GEAR

by Dave Jensen – W7DGJ



POTA activations are so much fun, but they can be stressful at times. Perhaps you'd enjoy getting up and seeing some of the park you've activated after an hour or two of those pileups. On one recent outing my fingers were blistered from hitting the push-to-talk button. I must have caught the propagation just right or maybe the park I was in was really in demand. I felt like a DX station on some rare entity, and after an hour or two I needed a break. Have you considered inserting a hike or even a snooze under a shady tree into your portable radio routine? It's entirely possible when you switch over from POTA to WSPR!

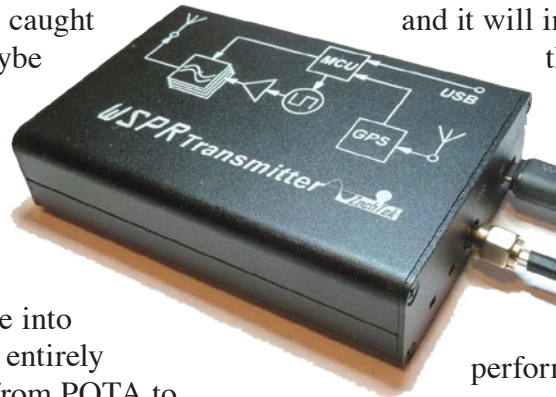
WSPR is an acronym for Weak Signal Propagation Reporter. It is a protocol, implemented in a weak-signal radio computer program written by **Joe Taylor, K1JT**. It's by far the easiest of the digital modes to get involved with, as it's exclusively one-way transmission. It can be accomplished through a variety of very small gadgets.

Here's how I use WSPR...When I take a break from the activation, I take all my gear back to the car but leave my antenna up. I then attach one of Zachttek's tiny little WSPR transmitters to my coax, along with a cell phone battery pack. The total gear you need for this is about the size of pack of cigarettes, so you can hide it under a bush and walk away securely. (First, you set it up with a laptop in about two or three minutes). Harry Zachrisson builds these great little devices by hand over in Sweden, and they pack an unbelievable punch for about \$150.

I bought one and matched it up with my POTA whip for a couple hours of one-way beacon transmissions. I plugged it into my laptop after a hike and found out that this little transmitter of a fifth of one watt had been heard on both coasts of the USA, in Australia, New Zealand, British Columbia, and

get this...Antarctica! All of this on an inexpensive Chinese vertical. I've lately been using it with an Alpha and also with a Chameleon, and getting even more stunning results. You'll get a great map of who's hearing you from the official WSPR website, and it will inspire you once again with the thought of how cool radio can be (and how valuable a tool your portable transceiver can be for emergencies).

Even if you've had a dismal POTA outing, you'll feel good about the map the WSPR website builds that shows your antenna's performance. For that matter, along with an antenna analyzer, it's a great tool for tuning your antenna. With the right gear, WSPR can be just another fun aspect of portable ham radio.



*Dave Jensen, W7DGJ, was first licensed in 1966 as WN7VDY (and later WA7VDY). Dave loved radio so much he went off to study broadcasting and came out with a BS in Communications from Ohio University. After working his way through the microphone business of Audio-Technica, he moved to Arizona and was later re-licensed as W7DGJ (Scottsdale). His column, **Tooling Up**, ran for more than 20 years in the website of the leading scientific journal, *SCIENCE*, and his column **Trials and Errors: Ham Life with an Amateur** continues to be a popular read each month on *QRZ.com*.*

Read Dave's column at <https://www.qrz.com/trials-and-errors>



Tech Talk

What's the deal with Q-Codes anyway?

Amateur radio operators commonly use “Q-codes” to convey information in a shorthand fashion, but most hams don’t know why or where these originate from. The earliest uses of Q-codes date back to the early 1900s for communications between British ships. This was entirely Morse code and they wanted a shorthand way to ask or respond to questions. Thus, the Q code was born. But why the letter Q? Some say it stood for Queen, in honor of the monarchy, but others say that Q was chosen because it is one of the least used letters and could be distinguished easily in Morse code. Still others feel it was to indicate that a question is being asked. No one really knows, but Q stuck as the prefix for these codes.

By the 1970s, the Post Office Handbook for Radio Operators listed over a hundred Q-codes, covering a wide range of uses including radio procedures, meteorology, radio direction finding, and search and rescue. A group of these codes in the **QAA to QNZ** range is used for Aeronautical navigation. For example, **QDM** means the magnetic bearing to a station.

As radio amateurs, we use these Q codes to either indicate a condition or request info. For example, **QTH** can be either “**my location is**” or as a question “**what is your location?**”. These are still really great for CW (Morse code) operators, but we use these in voice modes as well as a means of clarity. For example, **QRZ** means “**who is calling me?**” You will often hear stations that are working a pileup give their call sign followed by **QRZ (pronounced Q R Zed)**. This is your time to give your callsign, if you want to work that station.

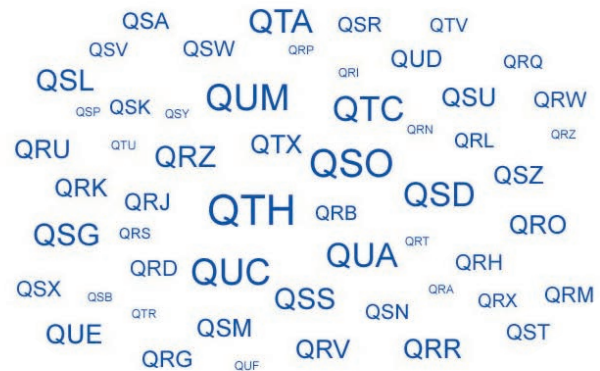
When we have man-made interference, we refer to this as **QRM**. However, if it is static, maybe caused by lighting or natural causes, we

refer to this as **QRN**. Read over the Q codes to understand the differences and subtleties of each one.

Operators will often ask you “**QSL?**”, meaning did you understand what I said? You can affirm this by saying Roger, or QSL. Of course, we also have something called a QSL card. This is a physical way to affirm that we have made a contact and you can exchange these cards with other hams.

Another point of confusion can be using a Q-code to refer to a type of equipment, like a QRP rig. The Q-code **QRP** refers to decreasing your power. It is rarely used for that purpose, but hams like to refer to radios that are less than 10 watts as being a QRP radio. There are a number of people in the **CARS** club that like to operate QRP, especially with remote operating like **POTA**.

Though there are about 50 Q-codes, we rarely use more than about 10 of them in everyday operating. It is handy to keep a list of these by your station in case you hear a Q-code that you do not know.

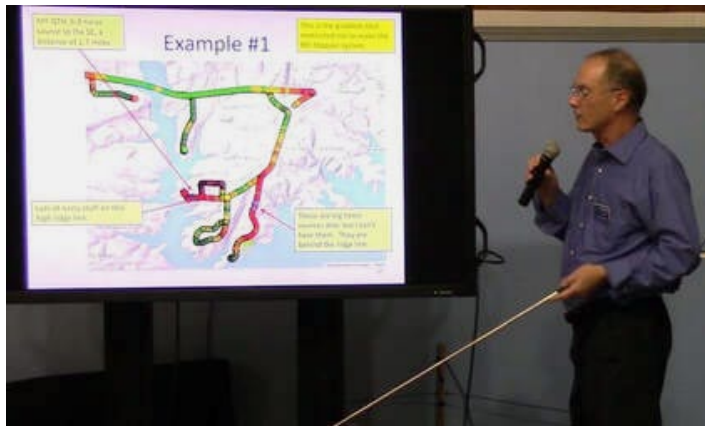


You can find a great list of these on the ARRL website. Here is a link: [20_Signals.pdf](#)

Coming Up



Next Club Meeting - September 9th 2023 **Brown Bag Lunch Event**



Our guest speaker will be **Jeff Stuparits –W4DD**. We all experience some levels of RFI (radio frequency interference), especially on the HF bands. Jeff will be teaching us about RFI, how to locate sources of it, and how to eliminate or reduce it.

Jeff became interested in RFI about ten years ago when RFI affected his ability to enjoy ham radio for contesting, weak signal work, and rag chewing. In addition to providing information on locating RFI, he will also have a few pieces of hardware for show and tell. Jeff is retired from a large cellular company where he worked in the Advanced Technology Group on spectrum issues including cellular spectrum optimization and FCC spectrum auctions. In addition to his 20 years in cellular, he also worked in Telephone Operations and Air Defense Communications. Jeff's background includes a EE, a MBA, and he is a licensed P.E. Additional information about Jeff can be found on his QRZ web page or page 13 of the August 2022 QST, Member Spotlight.

There will be a workshop following the September 9th meeting - 12:30- 2:00PM.

10 Things I Wish I Knew About Antennas - Workshop - Part 2

This will be a workshop immediately following the Monthly Meeting with **Tony Drake–KC4OBY**. Anyone interested in knowing more about antennas, polarization, SWR, power losses in coax, and more.

You memorized some answers about antennas for you ham exam, but what do they really mean? Come find out. Bring your questions, a brown bag lunch, and a drink. Part 2 will have demonstrations using the **nanoVNA**.

New Members!!

CARS would like to welcome and recognize our new club members who have chosen CARS as their club.

Name	Call Sign	Member Type
Merrit Scahatz	TBD	Associate
Sean Glennon	KD2ILT	Complimentary
Dudley Henderson	KC5SDF	Regular

Month	Date
September 2023	9 th
October 2023	14 th
November 2023	11 th
December 2023	9 th
January 2024	13 th
February 2024	10 th
March 2024	9 th
April 2024	13 th
May 2024	11 th
June 2024	8 th
July 2024	13 th



Contesting

Contest Corner

September 2023

All Asian DX Contest

0000Z, Sept 2nd to 2400Z, Sept 3rd
160,80,40,20,15,10m SSB

Colorado QSO Party

1300Z, Sept 2nd to 0400Z, Sept 3rd
All except WARC CW, Phone, Digital

Ohio State Parks on the Air

1400Z-2200Z, Sept 9th
80,40,20,15,10m SSB

Wisconsin Parks on the Air

1600Z-2300Z, Sept 16th
All except WARC All Modes
CQ WW DX Contest, RTTY
0000Z, Sept 23th to 2400Z, Sept 24th
80,40,20,15,10m RTTY

Other September QSO Parties

TN, AL, TX, NJ, IA, NH, ME

DXpedition News

Tom – LA6VDA will be active from Svalbard as **JW6VDA** from August 30th to September 6th, 2023. QRV on HF bands, mostly SSB. QSL via LoTW, Club Log OQRS.



From September 15th-28th, 2023 **Holger – ZL3IO** will be active from Waitangi, Chatham Islands as **ZL7IO**. QRV on 160-10m; CW, SSB, RTTY & FT8. QSL via DK7AO, LoTW.





WX4CAR

CARS Officers for 2023:

President:

Martin Buehring – KB4MG

Vice President:

Chad Cone – KY4KP

Secretary:

Mark Schulze – KO4IFY

Treasurer:

James James – KE4HMS

Cherokee County

Emergency Coordinator:

Rob Bruderer – W1JKU

Email–club.wx4car@gmail.com

Time & Location of Meetings:

Meetings are the second Saturday of each month at 10:00 am Eastern Time.

*William G. Long Senior Center
223 Arnold Mill Road*

Woodstock, Georgia 30188

Our meetings are open to all visitors. You do not need to be a member or have a license to attend. Come for the fellowship and technical programs.

We also have a combined ARES meeting at the same time. ARRL FCC Testing is at 1:00PM following the meeting.

Newsletter Team:

Editor: Lee Hall – KB4KDX
lee.hall.mail@gmail.com

Editor: Jim King – KO4EAN
king4144@gmail.com

Design: Carmon Madison – KQ4JIO
carmon@icloud.com



Mission Statement

The mission of the Cherokee Amateur Radio Society is to promote the hobby of amateur radio to the Cherokee County residents and surrounding communities. It primarily serves to provide education, FCC testing, public service, and fellowship to people with the common interest of amateur radio.

Cherokee Amateur Radio Society is an organization of FCC licensed amateur radio operators (also called Hams) that meet and share the hobby, educate people about amateur radio, as well as support our local community in times of disaster. We are located in Cherokee County, Georgia and have club call sign **WX4CAR**. We are an ARRL Affiliated Club.

The club also participates with ARES, and the Cherokee County EOC when severe weather gets close to the area, and we help with local public service projects. The members of the club also dedicate some of their time to promote and help new hams to develop their skills and knowledge on Amateur communications modes and to be better operators. We are a very active club and participate in ARRL Field Day every year. If you are located in Cherokee County or the surrounding area, we would like to invite you to participate.

<http://www.arrl.org>

<http://skywarn.org>

<http://qsotoday.com>

<http://cherokeega-ema.org>

<https://www.gaares.org>

<http://hamradioworkbench.com>

<https://www.contestcalendar.com>

<https://www.onallbands.com>