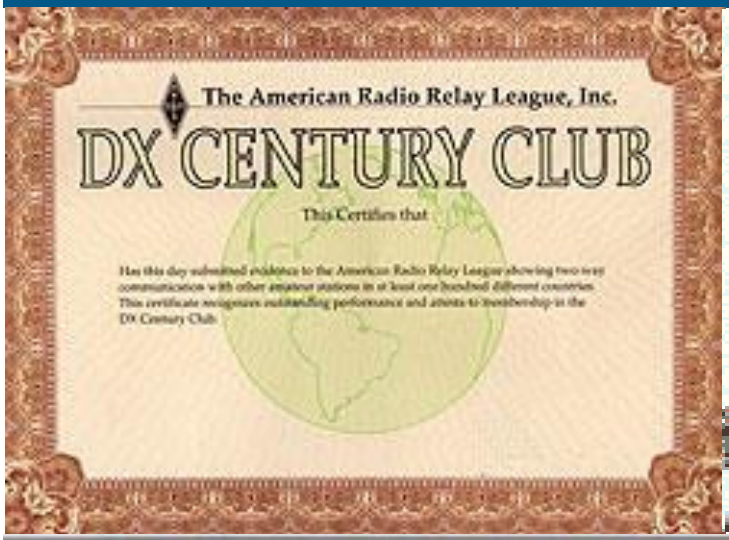
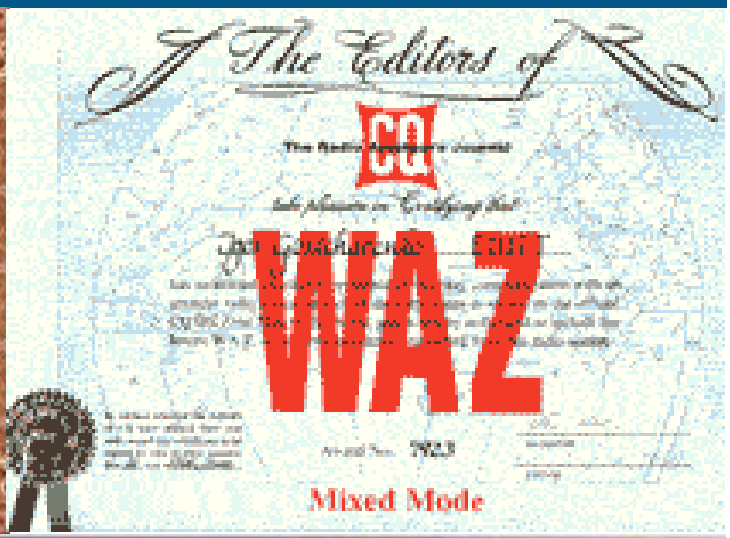
The GARzeffe

The Official Newsletter of the Gwinnett Amateur Radio Society

October 2020 http://www.gars.org/ Volume 29, Issue 10

October GARS Meeting: The Basics of DX, by Mike Weathers, ND4V





Online GARS meeting Tuesday, October 13, 2020 at 7:00 pm

President's Message

From the President…

The leaves are starting to change a little bit and the weather seems to be moderating some with lower temps and humidity (at least for a few days). After all, we are in Georgia and the weather will definitely change.

Many of are getting out more, but many are still limiting outside travel as we continue to endure COVID-19. GARS has restarted the Saturday morning breakfast with a different twist. Golden Corral has not reopened, but Cracker Barrel is open for inside dining. For the last few weeks, a group has been meeting at the Cracker Barrel just off Lawrenceville-Suwanee Road near I-85 (75 Celebration Drive). Right now, we have about six or seven joining us on Saturday mornings starting at 7:30 am and all are welcome to join us.

The Officers and Executive Committee are looking for other opportunities to get together for activities where we can safely get together so stay tuned. We are looking at an opportunity to get together on a Saturday evening for a Brown Bag gathering for a couple of hours at one of the Gwinnett Parks where we meet but keep our Social Distancing. Some many not feel comfortable attending, but if you are, we'll make it as safe as possible. Until then, don't forget to check GARS activities at GARS@groups.io or have a conversation on DISCORD.

Back to October and with Fall on the way, it is time for some of those outdoor projects. Fall weather makes the perfect opportunity for antenna work. Fall is also a good time to head to the nearest park with your go-kit and make contacts for Parks on the Air (POTA). Bill, WB4WTN, recently provided an excellent program for POTA and showed how easy it is to make contacts to parks around the country. Operating outdoors can be like your own private Field Day. You can also try out operating QRP. You'll be surprised how many contacts you can make.

I'm sure the word is out by now that Orlando Hamcation for 2021 has been cancelled. Hamcation is one of the best Hamfests in the country and I believe second only to Dayton in the world. Looks like we have a little longer to wait for the next Hamfest to attend.

Let's all stay safe and keep those PC cameras working!

73,

WB4QDX, Club President

GARS Meetings & Workshops

GARS Meetings and Workshops

Will be held online until further notice.

See http://www.gars.org for more information

GARS Workshop Login and Zoom Etiquette

Due to COVID-19 the following events are being held via Zoom video conferencing. Login info will be emailed via Groups.io Subscribe at; https://groups.io/g/GARS

GARS Workshop meets on the third Tuesday at 7:00 PM

Guests are always welcome! Zoom starts a little before 7:00 PM so login early to get a good seat. The presentation starts after brief introductions and announcements.

Workshops and Meetings are OPEN to all, feel free to share your invite with others.

- Workshops will be **recorded**. By participating you consent to being **recorded**.
- Please change your display name to Your **FirstName CallSign**, e.g. **Hiram W1AW**
- **How to change Your Display Name in Zoom**
- Please stay muted until ready to speak. Your space bar works like a PTT for un-muting
- To be fair to everyone, there will be a three minute limit for each person during Q & A
- You may ask questions in chat; **please stay on topic while using chat.**

Workshop Schedule:

- October 20, 2020 – Mark Bell N7GRB
    - RIDGID Pro Toolbox and Cart Transformation to VHF/UHF Radio Go-Box Set
- November 17, 2020 **– OPEN – We need you to volunteer**
- December 15, 2020 **– OPEN – We need you to volunteer**

GARS Workshop – October 20th 2020

RIDGID Pro Toolbox and Cart Transformation to VHF/UHF Radio Go-Box Set

By Mark Bell N7GRB

Every look at those portable toolbox sets available from hardware stores such as Lowes or Home Depot and wonder how you can leverage them for use in ham radio? Join Mark N7GRB as he describes the “leveraging” of the RIDGID toolbox set for a field-portable VHF/UHF go-box.

GARS Meetings – October 2020

We meet on the second Tuesday of every month, except December. Guests are always welcome!

WHEN: Second Tuesday – Meeting Starts at 7:00pm
WHERE: Online Meeting using Zoom, invitations will be on Facebook, Groups.io, Discord server

PROGRAM:

- October 13, 2020 – Mike Weathers ND4V will present “The Basics of DX”
- November 10, 2020 – Steven Ellington N4LQ will present “Multiband and EFHW Antennas”

The GARzette OCTOBER 2020

Inside

GARS Communication

2 Meter Repeaters	6 Meter Repeater
147.075(+) MHz Tone 82.5 147.255(+) MHz Tone 107.2	53.110 (-1 MHz) No Tone (Offline for Maintenance)
1.25 Meter Repeater	**Other Resources:**
224.580(-) MHz Tone 100.0, 1.6 MHz Offset	APRS
70 Cm Repeaters	144.390 -- 1200 Baud W4GR
444.525(+) MHz Tone 82.5 442.100(+) MHz Tone 100 442.325(+) MHz Tone 100	D-STAR WD4STR
	145.060 + (1.4 MHz) 440.550 + (5 MHz)

Don't forget to support our advertisers at the back of the *GARzette*.

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GARS
P.O. Box 492531
Lawrenceville, GA 30049

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

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If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to editor@gars.org. Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The GARzette is published each month with the assistance of Norm Schklar, WA4ZXV who prints copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the newsletter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.

For additional information view our Website at: http://www.gars.org

Newsletter Email: editor@gars.org Editor: Bob Hoffman, K4CQO Assistant Editor: Bill Eggers, WB2RIS

New GARzette Editor

After 4 years editing the GARzette, it is time to give the reins to someone else. Please welcome Bob Hoffman, K4CQO, as our new GARzette Editor!

I will still help with the GARzette as an Assistant Editor, and I am looking forward to providing advice and guidance to Bob as he gets more acquainted with the position. Thanks Bob!

73, Bill WB2RIS

GARS HELP WANTED

Speakers Needed for GARS Workshop Presentations, 3rd Tuesday of the month – Email workshop@gars.org to volunteer.

[PS— Articles to publish in the GARzette, either written by GARS members or published elsewhere, are always welcome. —Ed.]

GARS Happenings

25 Years ago in the October 1995 GARzette:

- The GARS Ham of the Month is Carlton McPherson, WA4ZUW;
- Duanne, KD4KCR presents Part 3 of "CW, Mode of Choice";
- Pickett, AD4S, shows his "Pickett's List" of inappropriate terminology heard on the bands;
- In "This Old Shack", Joe, AD4PZ, discusses "HT's in the Shack".

You can always browse the GARzette archive at http://www.gars.org/newsletters
73, Bill, WB2RIS, GARzette Editor

We bring you the Inaugural Stone Mountain Hamfest Commemorative SES!
Special Event Stations: K4A – K4M – K4R – K4C – W4BOC/P (Bonus Station)
Starting EST Friday, November 6th 7pm, or 19:00 EST – 00:00 UTC
Ending EST Sunday, November 8th 7pm, or 19:00 EST – 00:00 UTC
48 hours round the clock! Schedule your time to operate a 1×1 SES callsign:
https://stonemountainhamfest.com/hamfestSES/

Apalachee District, NEGA BSA
October 10 at 10:50 AM ·
63rd Jamboree On The Air (JOTA), October 17th from 9:00 AM – 4:00 PM
VFW Post 5255, 368 Grayson Highway, Lawrenceville, GA 30046
For directions please go to http://goo.gl/maps/8b4zx
This a free event that is open to all Cub Scouts, Scouts BSA, Venturers, Sea Scouts, Girl Scouts & the general public. Come learn and have fun at JOTA 2020. JOTA is an annual Scouting event that uses amateur radio to link Scouts around the world, around the nation, and in our own community. Scouts of any age can participate, from Cub Scouts to Scouts BSA, Venturers and Girl Scouts. This is the official JOTA site of the Northeast Georgia Council Amateur Radio Club KK4BSA.
Although we will not be conducting a Merit Badge class this year, those wanting to earn the radio merit badge can get requirement 7 and possibly 9(a)(6) signed off. If Advance-A-Rama in February is forced to be virtual requirement 7 will be required in order to earn your Merit Badge.

- Jul 20 – Jul 26; No entries received
- Jul 27 – Aug 02; Randy Collins N4COR with 1 1x1 contact
- Aug 03 – Aug 09; Ralph Pickwick KJ4CNC with 1 1x1 contact
- Aug 10 – Aug 16; Ralph Pickwick KJ4CNC with 2 1x1 contacts
- Aug 17 – Aug 23; We have a tie
  - Ralph Pickwick KJ4CNC with 1 1x1 contact
  - Randy Collins N4COR with 1 1x1 contact
- Aug 24 – Aug 30; Ralph Pickwick KJ4CNC with 8 1x1 contacts
- Aug 31 – Sep 06; Bob Hensey K4VBM with 3 1x1 contacts
- Sep 07 – Sep 13 ; Bob Hensey K4VBM with 21 1x1 contacts
- Sep 14 – Sep 20; Bob Hensey K4VBM with 36 1x1 contacts
- Sep 21 – Sep 27; Randy Collins N4COR with 1 1x1 contact
- Sep 28 – Oct 04; Bob Hensey K4VBM with 64 1x1 contacts

I'm sure those that participated had as much fun at this as I did.
73, Dallas KD4HNX

Net Managers Corner

Monday Night 2 Meter "Want, Swap, Sell, and Information Net"

GARS NEEDS MEMBERS TO SERVE AS NET CONTROL STATIONS!

GARS is a great Amateur Radio service club and we have the membership and awards to prove it. Our club is a very busy and active club and we use the Monday night net to get the information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people that make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

Out of almost 300 members, there are only SEVEN primary people who serve as NCS for the GARS net every Monday night. In no particular order, they are:

Don - KW4AL	Ray - N4GYN	Bill - KK4AUA
David - KA4KKF	Kevin - KK4WOG	Chuck - KK4TKJ
Russell - AB4QQ		

As GARS Net Manager (Chuck KK4TKJ), I really need 26 people to fill NCS positions. I do plan and post the schedule months in advance. Any conditions will be accommodated that you as a rotating NCS need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club.

The "Want, Swap, Sell Information Net" begins promptly at 19:30 every Monday night and runs about 45 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact me at KK4TKJ@arrl.net. Sign up to help support the effort that makes GARS the great club that it is.

73 and see you on the Nets!

Chuck McCord, KK4TKJ

GARS Net Manager

New HamPi Release

HamPi 1.1 Released

by Dave Slotter, W3DJS

I am proud to announce the release of HamPi 1.1, the ham radio software collection for the Raspberry Pi computer. This September 2020 update is a quarterly update and can be downloaded from https://sourceforge.net/projects/hampi/files/2020-09%20Release/

Support for HamPi is available by joining the forum at https://groups.io/g/Ham-Pi/ . Upgrade support from the prior version of HamPi is available from an included document titled, "UPGRADING_FROM_PRIOR_VERSION.TXT"

Some of the additions to HamPi 1.1 include HamClock by WB0OEW, Lopora, a QRSS viewer, and the adifmerg command line utility. There were some minor corrections to the installation of SDRAngel, BlueDV and FreeDV. Other included applications received version updates, such as WSJT-X, JTDX, GridTracker and the FLDigi suite of applications.

Finally, HamPi supports two charities: The Father's Rights Movement and Americans for Equal Shared Parenting. HamPi supports the rebuttable presumption of 50/50 shared parenting for children of divorce because all children deserve both parents in their lives. Users that find HamPi useful are encouraged to support these charities.

Improving Repeater Awareness

Improving Your Repeater Proximity Awareness:

Why Coordinates, Coverage Radius and Coverage Descriptions Are Important to You

By Chuck Adams – KV4VT

So, you just got that new VHF/UHF radio and you're eager to take it for a spin, huh?

Or perhaps you already have a radio and need to revisit how well its programmed?

Next Step: Fire up dependable, comprehensive (and free) **RepeaterBook.com** (**RB**) on your desktop computer and start looking for repeaters.

But Wait! How do you know which repeaters you can reasonably expect to hear and hit as you navigate back and forth from your QTH? Which repeaters should you choose to program into your radio?

This is when your **Repeater Proximity Awareness** – **RPA** becomes important.

Your **RPA** is governed primarily by your radios' **reach** and by the repeater's **coverage**. Your **RPA** is ultimately controlled by how quickly and accurately you can determine eight (8) key **RPA** factors:

Key RPA Factors	
YOUR REACH *Determined by Your Radio's Operational Configuration*	• Your radio's actual **output power** (watts) • Your radio configuration's **range** (i.e. **approximate distance** covered in linear miles – estimated by knowing your **ERP**: Effective Radiated Power. **ERP** = your radio's output power multiplied by your antenna's gain • Your radio's available **memory storage capacity** (a limiting constraint on the number of repeaters you can store in your radio) • Your **GPS Position (Coordinates)** and distance from the repeater
REPEATER COVERAGE *Determined by a Repeater's Operational Characteristics*	• Repeater **Coordinates** • Repeater **Coverage Radius** • Repeater **Radius Circle** (Coverage Area) • Repeater **Coverage Description**

Of course, the first four **RPA** factors are strictly up to you! But **RB** can readily help you with the last four **RPA** factors by helping you identify and target the repeater(s) you should download and program into your radio.

TIP – *Take some time to explore and learn how to accurately perform specific/targeted searches in **RB**. This is just one of **RB's** many powerful features and functions.*

Searches in **RB** can be based upon **many** combinations of repeater characteristics such as city, county, region, state, proximity to your location, mode, band, operational status, features, key words, etc.

If you have a newer radio, you may be asking yourself "Why is all this repeater location stuff so important? My radio has GPS and handles that automatically, right?"

Not so fast! Some of the newer radios have GPS capabilities, but they also have inherent limitations:

Summary of GPS-Enabled Radio Capabilities and Limitations	
Capabilities	• **Senses** your radio's **GPS** position (longitude and latitude coordinates) • **Compares** your current **GPS** position with stored repeater coordinates • **Performs** a distance calculation to determine which repeaters are in closest proximity to you
Limitations	• **Provides** proximity awareness only for repeaters that have their coordinates properly stored in the radio's memory • **Some** radio modes (i.e. D-STAR) support **GPS** awareness while other modes (i.e. Analog FM) might not be **GPS**-enabled • **Many** (most) radios out there simply don't support this capability whatsoever

Fortunately, no matter what kind of radio you use, **RB** still helps you improve your own overall **RPA** by effectively integrating a total of **thirteen (13)** location-related data elements:

Location-Related Data Elements in RB	
Data Element Name (click links to learn more)	**Data Element Description**
Country	A world-recognized nation with its own government occupying a territory within which the repeater is physically located
State	Government-recognized areas within the United States, Canada, and Mexico within which the repeater is physically located
County	State-recognized unit within which the repeater is physically located
Location	County-recognized city, town, municipality, suburb, or community within which the repeater is physically located
Grid Square	Maidenhead Locator System: a shorthand means of describing the repeater's general location anywhere on the Earth in a manner that is easy to communicate over the air, i.e. EM73xw
Landmark	A prominent/noticeable/nearby geographic or man-made feature adjacent to the repeater, i.e. mountain, lake, river, radio/TV/water/fire tower, church, school, shopping

Location-Related Data Elements in RB	
	center, store, etc.
Coordinates	Repeater longitude and latitude expressed in Digital Degrees (DD – i.e. 33.936667, -84.043333)
Coverage Radius	Expressed in approximate linear miles (or kilometers) that indicates a repeater's average range capability (i.e. roughly how far away from a repeater it can be reliably utilized for a QSO by a typically configured ham user)
Radius Circle	An approximate circular area drawn on a map by **RB** for each repeater using a 360-degree sweep of the Coverage Radius that gives you a rough estimate of the repeaters Coverage Area – i.e. where (and if) you can reliably utilize a repeater for a QSO (see Figure 1. below). This is not a propagation map
Coverage Description	A text-only description of the neighboring counties, regions, cities, townships, roads, or landmarks at the outermost boundaries (N, S, E, W) of the repeater's coverage area. If all else fails, this data can still give you a fairly good idea about the repeater's coverage footprint
Major Nearby Roads	**RB** can link repeaters with major nearby federal or state roads. This allows the repeater to be visible in **RB** Travel Searches which also display markers in repeater listings for each road thus linked
Propagation Reports	Registered **RB** users can easily read and submit Repeater Propagation Reports that can help users understand what to expect when attempting to access a repeater
Ratings and Comments	Includes: Coverage (Local vs. Wide-Area), Activity Levels, Travel (Recommendations for Travelers), One-Line Summary, Comments, all rated as 1, 2, 3, 4, or 5. (1=poor/low, 5=excellent/high)

"Destiny is not fate, it's navigation"

– Richie Norton

"I may not have gone where I intended to go, but I think I have ended up where I needed to be"

– Douglas Adams

How to Help Improve Your Overall Repeater Proximity Awareness – RPA

Repeater Users	• **PLEASE make sure** you are registered with **RB** (free) so that you can **export** your repeater search results to your favorite radio programming tool and receive many other membership benefits • **Spend** some time browsing the **RB** website to learn more about its many unique features and functions • **Read** the **RB** listing details for each of the repeaters you intend to use – they are all unique, and there are plenty of helpful details in each one • **Compare** what you see in **RB** with what you hear on your radio and vice-versa • **Report** any **RB** errors, omissions, or inconsistencies you may find **ASAP** via **RB** Update Request or via **email** directly to me • **Post** reviews and propagation reports for the repeaters you regularly use in **RB** to help other hams know what to expect when they use them • **Revisit**, review, and update your radio's programming at least **every six (6) months**. **RB** data changes rapidly and your programming can become easily outdated • **Urge** your local repeater Trustees, Custodians and **RB** Administrators to maintain and update their **RB** listings. If they fall behind, feel free to submit your input directly to **RB** via an online Update Request or just email me directly • **Exercise** your lungs, radios and repeaters! This is the best way to ensure everything is still working properly and will continue to do so well into the future • **Support** your ham clubs and repeater sponsors! They help make repeaters available for us all to use
Repeater Owners, Trustees, Custodians, Managers, and Sponsors	• **PLEASE make sure** you are registered with **RB** (free) so that you can receive updates about your repeater(s) listings and better manage them • **Review** all your **RB** listings and make sure they have accurate **Coordinates**, **Coverage Radius** and **Coverage Descriptions.** You (*should*) know your repeater(s) better than anyone else! • **Update** this data yourself via an **RB** Update Request, or simply email me and I will update for you • **Provide** a public and prominently-posted email address (in QRZ and other related web pages) so that you can be promptly contact regarding your repeater(s)

One of **RB's** primary goals is to help you **maximize** the **use** and **enjoyment** of your ham radio investment.

Improving and maintaining your **Repeater Proximity Awareness – RPA** is an important skill you need to navigate today's repeater airwaves.

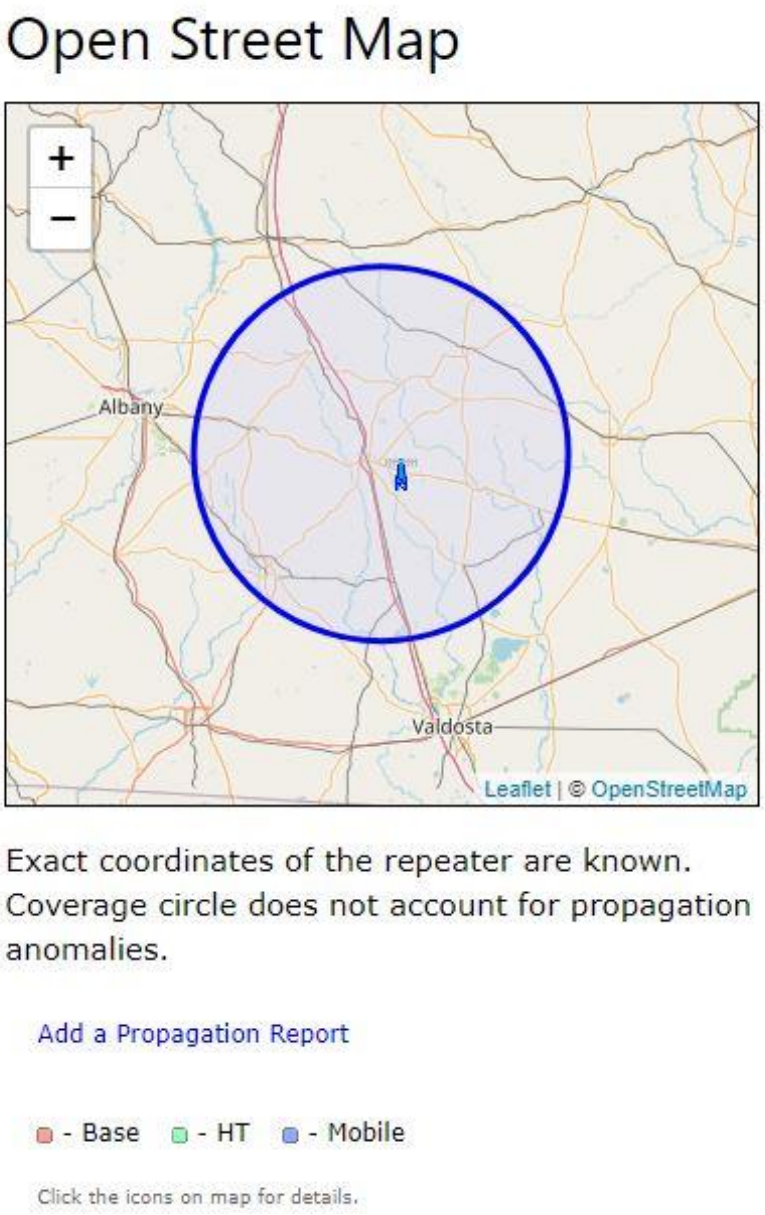


Figure 1 — A Typical RB Coverage Map
(click on this map to see the specific RB listing)

Chuck Adams – KV4VT serves as the Georgia Administrator for RepeaterBook.com and as an Applications Specialist for HamApps.com. He is an accomplished Electrical Engineer, Educator, and IT Project Management Professional. Chuck is also a member of GARS and AMRC. He lives in Lawrenceville, GA and can be reached via KV4VT@RepeaterBook.com

Code Test Ghost

[Here's a bit of "Old School" fiction, provided by an anonymous source… - Ed.]

When something unbelievable happens, it's perhaps best to not talk too much about it. People won't believe you anyway. Some people might think you're crazy. Maybe they're right. Maybe this didn't happen. Maybe I am crazy. After all, this was all a long time ago, just after the FCC stopped giving the amateur exams and the VECs took over. Still, I know that those who were there will never forget this one particular day.

We had not really expected much of a turn-out for our regular Sunday afternoon VE testing session. It was Halloween, after all, and many folks were home setting up for the trick-or-treaters. Still, as Bob, Murray, and I finished the paperwork for our VEC, we agreed that having ten candidates on a night like tonight was a good haul. And they had done well, too. We did the five word-per-minute code test for four novices, and the rest tested 13 WPM for the General Class. Of those, eight passed. Only two students went away disappointed and they were both so close that I was sure we would see them again next month.

It was with some surprise, therefore, when we all three happened to look up and notice an elderly gentleman sitting quietly at one of the desks in the back of the room. I certainly had not heard the door open, and from the expressions on the faces of my fellow examiners I could tell they were equally surprised. The old fellow was not one of our examinees. I briefly thought that he might be disoriented and had simply entered the room by accident. We administer our tests in the community room of the public library. Perhaps he was looking for the reading room.

"May I help you?" I said.

"Is this where you administer that Morse code test," he replied.

"It is. Are you here to test for an amateur radio license? If so, you'll need to fill out some paperwork and there's an exam fee. By the way, what's your name?"

"I'm Buck, just Buck. But people call me Sparks. Before we start fiddling with a bunch of papers can't you just crank up some Morse. I want to see if I still have the touch." I looked at Murray and Bob, and we all kind of shrugged at the same time, as if to silently agree to a "well, why not. Let's humor this old guy along and see what happens."

Murray passed Buck a few sheets of paper and two sharpened pencils, and Bob fired up the Morse program on our fancy new TRS-80 Color Computer. That computer sure was a lot better than having to deal with the old paper code tapes.

Buck gave us a nod. Bob selected the option on the screen for five words-per-minute and started the program. We all stared at Buck; couldn't help it.

Buck had the pencil in hand as if about to copy the code but otherwise didn't move or even show that he heard a thing.

"Is that what you call Morse code?" he asked.

"Yes, Morse is a language of dits & dahs…" I started to explain, before he cut me off.

"It's going so slow that I can hardly make out the letters. Will that contraption of yours go any faster?"

"Well, okay," I said. "The General test calls for 13 words-per-minute. Do you want to try that?"

"It's got to be better than whatever that was."

I gave Bob a nod and he selected the next option on the code program. Again, the beautiful sound of Morse filled the room. Buck, however, didn't seem pleased. He gave us the same kind of look as before, as if he felt sorry for us.

"That's better," Buck interrupted, "but it's still going so slow that I can barely make out the words."

At this point, Murry, Bob, and I had a little whispered conference. We decided this old guy was playing us and didn't know code at all. But we agreed to play along to see if we could get his goat as well.

"Well," I lied, "we have one more setting that might be more to your taste."

Bob stopped the 13 WPM test and selected the max, 50 WPM.

"You ready," I asked.

"I've been ready for a hundred years," Buck replied.

Bob started the program and Buck leaned back in his chair, looking at the ceiling, but we could see that his eyes were closed. "I hope he doesn't fall asleep," I whispered to Murray.

At the end of the test, Buck came back to life. With pencil in hand, he wrote like a demon possessed, filling an entire page of the scratch paper. Then he walked up to our table, handed in his work, and returned to his desk in the back row. It was perfect. He copied the whole five minutes in his head at 50 WPM. To say we were stunned would be an understatement. Neither Bob, nor Murray, nor I could come close to copying 50 WPM. In truth, we were all a little choked up. Finally, Murray suggested we give him the theory exam, speculating that he might not have any trouble with that either.

That's when we noticed that Buck was gone. Gone. Like, not there. Just like his entrance, we never heard the door open or close. Finally, Bob said, "Did that really happen?" Maybe it didn't happen all those years ago. Maybe I don't believe it myself. Maybe we three all imagined it. But I still have Buck's scratch paper with five minutes of perfect copy. And our next test session also falls on Halloween.

Vintage Ham Radio Equipment

This is the first in a series of articles about vintage ham radio equipment. It is provided by Bill Shadid, W9MXQ, who also publishes these articles in the W9CQO newsletter. He has graciously agreed to provide GARS with his articles on a monthly basis. I hope that you enjoy these as much as I do – *Editor K4CQO.*

Vintage Amateur Radio
The Drake R-4 and T-4X Receiver and Transmitter

de Bill Shadid, W9MXQ

As people who know me have heard, I find it interesting to watch how the manufacturers met the challenge put down by Collins with the S-Line separate receivers and transmitters in 1957. Collins introduced a separate receiver and transmitter capable of separate of transceive operation in the 75S-1 Receiver and 32S-1 Transmitter. Later they later introduced the KWM-2 Transceiver. (Not everyone realizes that the KWM-2 was a part of the S-Line product package.) The other manufacturers seemed to introduce those product lines in reverse – with the transceiver preceding the separate receiver and transmitter. Was that because the movement of the transceiver as the dominant ham radio tool was recognized? Or, was it just easier to get the transceiver through research and development? We will never know for certain. Hindsight is 20-20 from the perspective of the early 21st century making judgements on what was done in the mid-20th. Would you believe that these revolutionary changes are now approaching sixty-five years ago? It gets a little disturbing when you personally remember the event.

In 1964, Drake entered the transceive capable separate receiver and transmitter market after the TR-3 and TR-4 Transceivers (reference two past articles on those fine radios). Drake introduced what became one of the most popular sets of separate radios of all time – the Drake R-4 Receiver and T-4X Transmitter – better known as the "Drake Twins" or the "Drake Separates." They extended with very similar design through the R-4, R-4A, and R-4B Receivers and the T-4X and T-4XB Transmitters. (There was no T-4XA Transmitter.) While similar in appearance, the R-4C Receiver and to some degree the T-4XC Transmitter were new designs and will be the subject of a future article. Below is a beautiful R-4B and T-4XB station owned and operated by my long-time friend, Roger, K9VSK, of Roanoke, in central Illinois:

Drake R-4B Receiver

Drake T-4X Transmitter

K9VSK

While Collins set the tone of the market by the mid-1960's, they were pretty much alone in making a receiver with crystal or mechanical bandpass filters. Collins was also alone in making provisions for multiple, selectable bandwidth mechanical filters. The others – particularly the very popular and more economical Hallicrafters, Hammarlund, and National receivers (to name three) – had no such feature other than some rather broad "crystal filters" that had variable bandwidth with very broad ultimate attenuation. The popular receivers of the day used tuned circuit designs to determine bandwidth. Some of these radios had a selection of multiple tuned circuit bandwidths. These were economical and functional but only marginally effective alternatives to the Collins design. These tuned circuit designs gave relatively good performance at a -6dB bandwidth but had very wide "skirts" in their performance characteristics showing very broad bandwidth performance at -60dB down.

Drake introduced a different design concept that turned out to be the focus for designs in the coming years with most manufacturers. The original R-4 brought an early stage crystal lattice filter after the RF Amplifier stage, and the First Mixer stage, at 5645 kHz. While placed perhaps a bit differently, we know this today as a Roofing Filter. However, the R-4 through R-4B Receivers kept the tuned circuit method of determining final bandwidth with a broad "roofing filter." That said, this early circuit crystal filter assisted the front end of the radio in fighting strong signal overload before reaching the bandwidth determining circuits in the later 50 kHz i-f.

Any R-4 series receiver could transceive with any T-4X series transmitter – so, again, like in the TR-3 and TR-4 series transceivers, all options worked across all model lines within the different models of separates. But, unfortunately, the conversion scheme of the transceivers was not compatible with the R-4 series receivers and T-4X series transmitters. So, unlike Collins and Heathkit at the time, it was not possible to interconnect the TR-4, for instance, to an R-4 for transceive using the VFO in one of the radios. However, Drake and other brand receivers were easily connected to Drake transceivers for use as separately controlled units.

The Drake T-4X and T-4XB transmitters used the crystal filter method to generate SSB signals and operated CW by unbalancing the balanced modulator to generate a carrier. The transmitters provided for AM transmission as well with low level screen modulation. The transmitter had built-in VOX (voice operated transmit) and could utilize this circuitry to operate semi-break-in for CW. While the transmitters provided sidetone back through the receiver for CW, they were not designed to provide monitoring of transmitted AM or SSB signals.

Drake "4-Line" Accessories were used with the Drake Receivers, Transmitters. and the TR-3 and TR-4 series Transceivers . . . *(Small note – the TR-3 was unique in its "3" number. It fits in more precisely as an "early TR-4" than a unique radio model.)*

AC-4 AC Power Supply (Mounted in MS-4)

MS-4 Speaker Console

W-4 Wattmeter

L-4B Linear Amplifier
(2x 3-500z Eimac Tubes)

MN-2000
Antenna Matching Network

W9MXQ

Other accessories were also used with the popular Drake "4-Line" Receivers, Transmitters and Transceivers:

L-4 Linear Amplifier
(Predates the L-4B)
(2x 3-400z Eimac Tubes)

MN-4 Antenna Matching Network

W9MXQ

The Drake L-4 and L-4B (along with the L7 and L75) Linear Amplifiers will be the subject of a future article. The MN-4 Antenna Matching Network (Drake's terminology for "Antenna Tuner") was like the MN-2000 except that it was rated for an input power of 300 watts as compared to the 2,000-watt capability of the MN-2000. Front panel design the same size and just lightly different in appearance. The MN-2000 was deeper and heavier.

The Drake T-4X series transmitters used the same 6JB6 final amplifier tube used in the TR-4 series transceivers (recall from earlier articles that the TR-3 used the similar 12JB6 final amplifier). Unlike the transceivers, the T-4X series transmitters used only two of the tubes as compared to three in the transceivers. Instead of 300 watts PEP SSB (260 watts CW) input from the transceivers, the input power of the transmitters was 200 watts PEP SSB and CW. While our less technical ham friends will point out that the T-4X transmitters can run much more input power, Drake always warned that over 200 watts was beyond the linear performance range of a pair of 6JB6 tubes. So, "let the owner beware."

Drake also had a rather unique group of accessories to allow the "4-Line" equipment to access six

and two meters using separate receiving and transmitting converters. Here for reference they are shown:

Drake CC-1 Converter Console (Holds Receiving Converters)

Drake TC-6 (Transmitting Converter

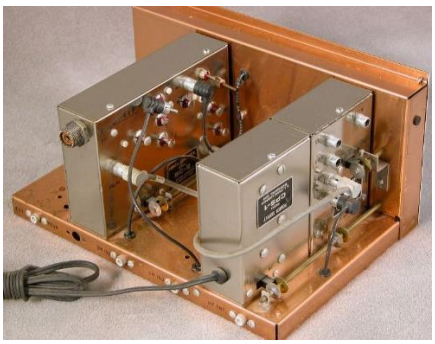
Drake TC-2 (Transmitting Converter

(Drake manufactured converters for 6 and 2 meters – but had provisions for others.)

Universal Radio

Drake VHF Transmitting Converters (TC-6 and TC-2) used a modification of the T-4X Transmitter to produce very low HF output to drive the conversion scheme in the converter. The TC-6 used the same model 6JB6 final amplifier tubes as used in the transmitter. Input power was 180 watts. The TC-2 used a different tube – the dual tetrode 8643 for an input power also of 180 watts. In both cases these were PEP input power ratings for SSB and CW.

The above shown CC-1 Converter Console held the SC-6 and SC-2 Receiving Converters (the SC-2 is in place in the view here, at the left side of the chassis). The CPS-1 Power Supply is the rear unit to the right on the chassis picture. In front of the CPS-1 is the SCC-1 Crystal Calibrator. Note the excellent condition of the copper plated chassis in this Drake publicity photograph.



W9MXQ

A Drake TC-6, TC-2, CC-1, CPS-1, SCC-1, SC-6, and SC-2 all graced the WA9MXQ shack (my previous call) in the days when I was using my Drake R-4B and Drake T-4XB. These devices were dedicated to SSB and CW use – with some people using them on AM as well.

Drake, Heathkit, and Collins used an inductively tuned VFO (more properly said as “PTO” for Permeably Tuned Oscillator) in both the receiver and transmitters. Like Collins, the Drake radios also lacked multi-stage variable capacitors for tuning individual stages in the radios. Again, inductive tuning was used with a rack assembly tuning all stages at once ganged to the PRESELECTOR control on the receiver and the RF TUNE control on the transmitter.

Drake R-4 series receivers continued the use of PASSBAND TUNING that was featured in their earlier 1A, 2A, and 2B (but not the 2C) Receivers. This was much more effective than the Q-Multiplier (REJECTION TUNING) used by Collins – and similarly superior to other competition that only included a NOTCH filter. (The Drake R-4 series also included a NOTCH filter in addition to their very effective PASSBAND TUNING.)

Drake enjoyed a wide customer base with these radios – all the way through the "C" series radios that are the subject of the next article in this series. Drake offered a radio in line with the Collins S-Line in performance for not only less money but, in my opinion, were more advanced in technology – especially with the introduction of the "C" series radios (R-4C and T-4XC). To satisfy this demand – which included non-ham radio commercial high frequency radio operations – Drake had some unique versions of the Transmitter.

Commercial customers had little use for a radio that had separate frequency control of the Transmitter. The transmitter could be a slave to the receiver with those customers. However, Drake's line of Transceivers at the time – the TR-4 series by then – lacked two major features necessary to commercial customers:

1. PASSBAND TUNING and NOTCH Filter features – Interference Control.
2. Ability to cover all frequencies from 1.5 to 30 MHz – General Coverage.

The Drake receiver and transmitter pair could cover the amateur and commercial frequencies used by its global customer base. At that time, Drake did not have a transceiver to do that in their product line. But, their prime competition, the Collins KWM-2A Transceiver and S-Line separate Receivers and Transmitters could do General Coverage - and had at least some interference control on the S-Line separates. (Collins equipment covered 3.5 to 30 MHz only.)

To counter the need for a lower cost transceive alternative for commercial customers, Drake had two transmitter models over time:

Drake T-4 Reciter
Matched the R-4 and R-4A Receiver

Drake T-4B Reciter
(Matched the R-4B Receiver)

"Reciter" would seem to imply – reciting what the receiver told it to say.
That is, what frequency to be tuned in on the band.

Universal Radio

To make a more compact desktop concept in this market, Drake made a single cabinet unit using these components:

To the left is the Drake TR-44 Transceiver. This was a Drake R-4 Receiver and T-4 Reciter in the same outer cabinet. (These units had a unique cabinet – not to be confused with separate cabinets fastened together.) These were simply single cabinet mounted receiver and transmitter units – also offered separately. As implied above, the TR-44 initially shipped with the R-4 Receiver, but later units had the R-4A Receiver.

Universal Radio

Drake apparently sold enough of these units into the time of the R-4B and T-4B series of separate units that they introduced a later version of the single cabinet pair as you see here:

To the right is the Drake TR-44B Transceiver. This unit was like the TR-44 but used the later R-4B Receiver and T-4B Reciter. Apparently, Drake decided with the later T-4B Reciter that additional ventilation was necessary. You can see here, and in the separate T-4B picture, above, that the panel space occupied by the VFO in the T-4X and T-4XB now had a screen mesh allowing more air flow into the transmitter. (Research so far shows that no TR-44C, using R-4C and a T-4C, ever existed.)

Universal Radio

The receiver and transmitters in the TR-44 and TR-44B were still separate units without a common bandswitch control or early stage Preselector and RF Tune Controls.
For both the TR-44 and TR-44B the separate AC-4 Power Supply and MS-4 Speaker were necessary options for most users. The AC-4 did not fit into the open VFO area of the T-4 or the later T-4B. As with the stand-alone models, the R-4, R-4A, or R-4B used in these “transceivers” has their own internal power supplies.

The Drake R-4, R-4A, and R-4B – along with the T-4X and T-4XB were, as mentioned previously, able to receive and transmit from 1.5 to 30 MHz – extending across the HF spectrum (with some slight adjustments in the 5 MHz area to accommodate i-f frequencies). While the radios both had conventional fixed band positions for the 160-10 meters, it was possible to add optional range crystals to both for other coverages in 500 kHz portions of the HF spectrum. The receiver could hold ten 500 kHz range crystals while the transmitter could hold four. These ten and four, respectively, were in addition to the standard ham band range crystals. Unlike Collins equipment, the Drake receivers and transmitters did not require any re-alignment to cover bands other than the traditional ham bands.

I have used and later collected Drake equipment since acquiring a new Drake R-4B and T-4XB in the 1970’s. It is some of my favorite ham radio equipment. I have found Drake equipment that is been poorly cared for, rusty, scratched, and dented. But, after making sure it is connected to a good power supply and making sure it is free of defective electrolytic capacitors, it will immediately power up and make contacts. It is one of the three brands of radio that I collect that spring to life with little or no effort – those being Drake, Hallicrafters, and Swan (in alphabetical order).

Using Drake receivers is a joy with their circuit design yielding very low band noise. I am reminded of Roger, K9VSK, and me, back in the 1970’s when we worked together at Gates Radio Company, Quincy, Illinois. We would be comparing our respective Drake TR-4 and Swan 350c transceivers. I

never failed to be impressed by the comfortable listening with the TR-4 in Roger's shack. It was not that the two competitors could not hear the same signals – it was just more comfortable with the Drake. "Good work, Roger, in showing me that comparison back in those days – I never forgot it."

In a future installment, we cover the Drake R-4C Receiver and T-4XC Transmitter. To quote the famous Drake Collector and Restorer, Ron Baker, WB4HFN, right from the Home Page of his Drake Equipment Website - http://wb4hfn.com/DRAKE/DrakePageHome.htm - you can see his message:

WB4HFN

In many ways, Drake raised the bar to a point that DX friends of mine use the Drake R-4C Receiver and the T-4XC Transmitter to this day in active DX Contesting and chasing DX. Starting as stripped to the bone at delivery – when full option set was added, the R-4C Receivers know few equals. We will discuss what Drake learned making the earlier R-4/A/B and T-4X/B line that culminated with this remarkable pair in next month's installment.

As always, considerable credit for proof reading goes to my friend and fellow collector, Bob Bailey, W9DYQ. Bob and I have collected radios together for many more years that I would like to admit. And, it goes without saying that I appreciate that you read my articles. Remember that I am open to questions and comments at my email address, W9MXQ@TWC.com.

Membership

New GARS Members in October 2020

James Abernathy (KO4HHP)
Harry Heath (KO4FGK)

New Members: 2

Total Members as of October 1, 2020
335

Join GARS members for our weekly breakfast gathering at

7:30 AM most Saturdays

Now at

Cracker Barrel Restaurant
75 Celebration Dr.
Suwanee, GA 30024

The following members are celebrating birthdays in October:

HAPPY BIRTHDAY!!

From All of Us at GARS

Larry Andrus (KB4LWT)
Ray Bailey (N4GYN)
Scott Brown (KD4YDD)
Dale Burns (KI4MZO)
Alexis Carmona
Jonny Dorminy (KN4LGM)
Dorothy Draa-Miller
Charles Eiland (WA4RVO)
Ken Evans (W4DU)
Joshua Garcia-barreto (KM4OMX)
Ellen Hawkins (KM4RRW)
Bill Kirk (N4WWK)
Kathy Kitz
Robert LaBerge (KC4BI)
Danny Leahr (N8KCM)
Joel Levine (WA4HNL)
Hana Londono
Mac McDonald (NN4K)
Catherine Perry
Cathy Pierce (K1YMW)
Bob Pursley (WD4KQQ)
Allison Sullivan (KK4VLR)
Michael Weathers (ND4V)
Glen Wendt (W3WWT)
Russ Willard (KA4UUB)

GARS MEMBERSHIP

Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message.

To become a GARS member, or to renew your GARS membership, please visit our website—http://www.gars.org

To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please e-mail the Membership Committee - membership@gars.org

You can renew or update your Amateur Radio license information with the FCC at their website for free http://wireless.fcc.gov/uls/index.htm?job=home

To update your ARRL information, please visit their website - http://www.arrl.org

Membership Chair: Karen Albritton, KI4HPP

Committee Members: Dave Bruse, W4DTR, Pam Meridy, WB1AKQ,

Ivette Santiago, KN4OYE, Cathy Kelley, KN4DM

Repeater Status

6M	Currently down
147.075	Operational in Snellville
147.255	Operational in Snellville
224.580	Operational in Grayson
442.100	Operational at Goshen Springs
442.325	Operational in Buford
444.525	Operational in Snellville

Link remote receivers being added

Donating to GARS

Your GARS donation can be used for a certain purpose by donating to one of these funds:

- GARS SK Memorial Fund for Education
  (to remember and honor Silent Keys);
- GARS Scholarship Fund
  (Administered by the ARRL for awarding scholarships);
- GARS General Fund (any club purpose).

GARS has joined these rewards programs (a portion of every purchase you make through these merchants may be donated to GARS):

- Amazon Smiles;
- Kroger Community Rewards program.

For more information on how to sign up for these rewards programs, or to donate to GARS, visit
http://gars.org/gars/donations-to-the-club

GARS on Social Media

Discord Request:
http://gars.org/discord

Groups.io:
http://gars.org/groups.io

Visit GARS on Facebook:
http://gars.org/facebook

Follow GARS on Twitter:
http://gars.org/twitter

Join GARS on YouTube:
http://gars.org/youtube

Officers		
John Davis, President	WB4QDX	
Sandy Jackson, Vice President	KJ4DRO	
Joe Biddle, Secretary	AD4PZ	
Pam Meridy, Treasurer	WB1AKQ	
Randy Collins, Program Manager	N4COR	
Managers and Committee Chairs		
Karen Albritton, Membership Chair	KI4HPP	
Dave Bruse, VE Team Leader	W4DTR	
David Adcock, Webmaster and Field Day Chair	KA4KKF	
Ralph Pickwick, Apparel Manager and Education Chair	KJ4CNC	
Glen Wendt, TechFest Chair	W3WWT	
Bob Hoffmann, GARzette Editor	K4CQO	
Eddie Foust, Repeater Chair	WD4JEM	
Mike Weathers, WAS / DXCC QSL Card Checker and Historian	ND4V	
Chuck McCord, Net Manager	KK4TKJ	
Technical / RFI Advisor	Open	
Joe Biddle, Winter Field Day Chair	AD4PZ	
Kyle Albritton, Multimedia Chair	W4KDA	
Don Stewart, Elmer Manager	KW4AL	
Dave Slotter, Georgia QSO Party Chair, Workshop Leader and Public Information Officer	W3DJS	

Directors and Trustees			
Kyle Albritton, W4KDA		Rick Cobb, N4XYY	
Mike Weathers, ND4V		Bill Cherepy, WB4WTN W4GR Trustee	

GARS Meeting Minutes

Gwinnett Amateur Radio Society GENERAL Meeting Minutes 9/8/2020

President John Davis (WB4QDX) Opened the meeting at 7:00pm and Closed the meeting at 7:55pm (Covid-19 Alternative Online)

Online participants: 50

Treasurer Report: John (WB4QDX) – read the financial report. **Pam (WB1AKQ)** reported a receipt of $92.08 from Amazon this quarter.

Membership Report: John reported the Membership is at **[341]**.

Programs – Randy (N4COR) announced next month's program: **Basics of DX by Mike (ND4V)**

Workshop – **Dave (W3DJS)** reported the next Workshop - **September** - Repeaterbook.com by **Chuck Adams (KV4VT)**

GARS Education – **Ralph (KJ4CNC)**

- **McConnell Middle School** decided to use a multi-point tele-bridge for the week of Oct 6 for the ARISS project.

Fund Raiser (DogShow) – David (KA4KKF) mentions that we will have a Dog Show to work on **March 31st – April 4th.** Approximately ~15 volunteers will be needed.

Program – Steve Hudson (AA4BW) - Having fun with QRP

****Event dates** are recorded at the time of the General Meeting and subject to change.

Submitted by: **Joe Biddle (AD4PZ) GARS Secretary**

Gwinnett Amateur Radio Society Workshop Minutes

Number in Attendance: 34

Workshop Topic: Repeater Book

Presenter: Chuck Adams KV4VT

Brief Summary: Chuck serves as the Georgia Administrator for RepeaterBook.com and as an Applications Specialist for HamApps.com. His Workshop will focused on RepeaterBook.com functionality and how it can best be used to support the programming of your radio.

Chuck's presentation is posted at: http://www.gars.org/gars/previous-workshops/

Submitted by: Dallas KD4HNX

Events – GARS and others

ARRL CONTESTING INFO

From ARRL Contest Calendar
> For more information click the links <

October 2020
10-11 EME - 50 to 1296 MHz
19-23 School Club Roundup

November 2020
7-9 Nov. Sweepstakes - CW
21-23 Nov. Sweepstakes - Phone
28-29 EME - 50 to 1296 MHz

December 2020
4-6 160 Meter
12-13 10 Meter
20 Rookie Roundup–CW

January 2021
1 Straight Key Night
2 Kid's Day
2-3 RTTY Roundup
16-18 January VHF Sweepstakes

February 2021
8-12 School Club Roundup
20-21 International DX – CW

March 2021
6-7 International DX– Phone

April 2021
11 Rookie Roundup – Phone

(no ARRL contests in May)

June 2021
12-14 June VHF
19 Kid's Day
26-27 Field Day

July 2021
10-11 IARU HF World Championship

August 2021
7-8 222 MHz and Up Distance Contest
14-15 10 GHz & Up – Round 1
15 Rookie Roundup – RTTY

September 2021
TBD EME - 2.3 GHz & Up
11-13 September VHF
18-19 10 GHz & Up - Round 2

For more information:
http://www.arrl.org/contest-calendar

HAMFEST CALENDAR

[Please confirm the status of a hamfest before making plans to attend. – Ed.]

10/24/2020
Savannah Area SwapMeet and Hamfest
Location: Savannah, GA
Type: ARRL Hamfest
Sponsor: Coastal Amateur Radio Society
Website:
http://coastalamateurradiosociety.net/wpW4LHSblog/?page_id=871

11/07/2020 - 11/08/2020
Stone Mountain Hamfest, ARRL GA Section Convention
(CANCELLED)
Location: Lawrenceville, GA
Type: ARRL Convention
Sponsor: Alford Memorial Radio Club & Gwinnett Amateur Radio Society
Website: http://www.stonemountainhamfest.com/

11/21/2020
Montgomery ARC Hamfest, ARRL Alabama State Convention 2020
Location: Montgomery, AL
Type: ARRL Convention
Sponsor: Montgomery Amateur Radio Club
Website: https://w4ap.org/marc/hamfest

12/11/2020 - 12/12/2020
Tampa Bay Hamfest, ARRL Florida State Convention
Location: Plant City, FL
Type: ARRL Convention
Sponsor: Florida Gulf Coast Amateur Radio Council
Website: http://www.tampabayhamfest.com

For more information: http://www.arrl.org/hamfests-and-conventions-calendar
When searching by division, remember some states adjacent to GA are in different divisions:
Southeastern: GA, AL, FL Delta: TN Roanoke: NC, SC

GARS Events Calendar for 2020

TechFest (www.techfest.info)	January 18
Winter Field Day	January 25&26
General HamCram	TBD
Dog Show Fundraiser	**Canceled for 2020**
Georgia QSO Party	April 11 (home ops)
North metro area Fox Hunt	April
Memorial Day Parade	**Canceled for 2020**
ARC/KARC Hamfest	**Canceled for 2020**
Field Day	June 27&28 (home ops)
Tech HamCrams	**Mar (canceled),** Nov
JOTA	October
Maker Faire	TBD
Stone Mt. Hamfest	**Canceled for 2020**
Holiday Party	December

GARS Recurring Calendar

- 2nd Tuesday of the month at 7 pm (except December): Monthly Club Meeting **(online until further notice)**
- 3rd Tuesday of the month at 7 pm (except December): Monthly Workshop **(online until further notice)**
- 2nd Sunday of the Month at 2 pm **(suspended until further notice)**:
  GARS Ham Exam Session
  Fire Station #24
  2735 Mall of Georgia Blvd
  Buford, GA 30519
- Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net on the GARS 147.075 MHz repeater
- Every Monday at 8:30 pm: ARES Training on the GARS 147.075 MHz repeater
- Most Saturdays at 7:30 am :
  GARS Weekly Breakfast
  Cracker Barrel Restaurant
  75 Celebration Dr., Suwanee, GA 30024

GARS CALENDAR FOR OCTOBER 2020

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
September 27	September 28 7:30 – 8:00 PM GARS 2M Net	September 29	September 30	1	2	3 Breakfast at Cracker Barrel in Suwanee 7:30 AM
4	5 7:30 – 8:00 PM GARS 2M Net	6	7	8	9	10 Breakfast at Cracker Barrel in Suwanee 7:30 AM
11 GARS VE Team Session (Cancelled)	12 7:30 – 8:00 PM GARS 2M Net	13 7:30 – 8:00 PM GARS Meeting (Online)	14	15	16	17 Breakfast at Cracker Barrel in Suwanee 7:30 AM
18	19 7:30 – 8:00 PM GARS 2M Net	20 7:00 – 9:00 PM GARS Workshop (Online)	21	22	23	24 Breakfast at Cracker Barrel in Suwanee 7:30 AM
25	26 7:30 – 8:00 PM GARS 2M Net	27	28	29	30	31 Breakfast 

Active VE Testing Sessions

North Fulton Amateur Radio League (NFARL)

The VE Team will be holding an exam session on Saturday, October 10th. [The next session is scheduled for. November 14th. Check http://www.nfarl.org/testSessions.html for more information. - Ed.] All license class exams will be available. The exam session will be held at Slopes BBQ, 34 Crossville Road, Roswell, GA, 30075. Hours are 9:00 - 11:00 AM.
The exam fee is $15 cash. Other Details:

Seating limited to 8 candidates.
No walk-ins accepted.

Pre-registration via email to nv4c.ian@gmail.com required. Phone reservations not accepted.

Please do NOT register if you are not sure you will make it. Seating is limited and we want to be sure everyone who wants to test can do so.

Registration will close at 11:59 PM on Thursday, July 9. That gives Ian time to know what to expect Saturday, and accommodate replacements for cancellations.

Masks required. No mask, no admittance.

Enter the building via the side entrance.

Please pre-register with the FCC for an FCC Registration Number at https://apps.fcc.gov/cores/userLogin.do

Please pre-fill and bring the NCVEC Quick Form 605, found at http://www.arrl.org/files/file/VEs/605%20Form_2020_Fully%20Interactive.pdf

Please also bring the following:

Government-issued photo ID
Pen and pencil
If upgrading, copy of current license
Calculator (as stand-alone device) if you want to use one

Source: http://www.nfarl.org/testSessions.html

Tri County Amateur Radio Club

Tri County Amateur Radio Club held their first testing session since lockdown, September 1 @ 2pm! It was located at Hoschton Park outdoor pavilion. At this session, VE's in attendance were Roger WB4T, Max KN4OTT, Mike W9QO, and Nat K4VQ.

Successful testing session as 2 candidates upgraded to General: John Ring III KO4GOU and Bill Kincheloe KM4DRT.

Congrats to both hams! Go and enjoy those general privileges!

73, Nat K4VQ
Source: http://tricountyarc.com/

Cherokee Amateur Radio Society

We may only be able to accommodate a few simultaneous tests so we can maintain the safety of everyone. We recommend highly that you register if you want to be accommodated.

Register with John Reynolds (VEC) W4TXA
Phone: (770) 715-9640
Email: wx4txa.john@gmail.com

Where: Cherokee County Charter Academy. 2126 Sixes Road, Canton GA, 30114 (We will be outside, under cover sidewalk, West/Left side of Building)

Time : 1:00PM (1300 - 1430) on (date TBD)

Testing will be outdoors, but requires the wearing of a mask to keep everyone safe.

For more information, please visit their website at https://www.wx4car.org/

Stephens County Amateur Radio Society

VE session (date TBD) from 1 till 4 pm in Lavonia GA at 1240 E. Main St, at the white gazebo. [Lavonia, GA is off I-85 near the Georgia / North Carolina border... - Ed.]

If you need to test please get a hold of us at (kr4cw1@gmail.com.) We are working on a 2nd test session , if you would like to be a part of it please send us a contact email to club email and will be glad to help you on the prelist of this….

We will be giving All Tests (Tech, General, Extra) Cost will be $15.00 must have ID and copy of License, if you're upgrading…if it's your first time taking a test please go to the FCC website and sign up for a FRN number and create your Account. Here is the link to get started: https://apps.fcc.gov/coresWeb/regEntityType.do

Please make sure you print this off and bring with you, so you will have your FRN number. Without this we cannot submit your test.

Source: http://www.sc-ars.org/

Local VE Sessions

[Please check with each session contact for current status.—Ed.]

GARS publishes Metro Atlanta VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in, unless otherwise noted. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at http://www.arrl-ga.org

First Sunday, ODD Months
2 pm (Jan, Mar, May, Jul, Sep, & Nov)
VEC: WCARS
Braselton Public Utility Building
4986 Highway 53, Braselton, GA
Contact: Roger Gibson, WB4T
(770) 271-4210 or (770) 712-9560
w4rlg@bellsouth.net

First Sunday, EVEN Months
2 pm (Feb, Apr, Jun, Aug, Oct, Dec)
VEC: WCARS
Hall County EOC
470 Crescent Dr. Gainesville, Ga.
Contact: Perry Roper, KO4RD
(770) 536-3056

Second Saturday
10:00 AM
Alpharetta North Park, Adult Activities Center
13450 Cogburn Rd, Alpharetta, GA 30004
Contact: Ian Kahn, KM4IK
E-mail: km4ik.ian@gmail.com

Third Saturday, ODD Months
VEC: ARRL
9:30 am (Walk-ins welcome)
Stone Mountain Masonic Lodge
840 VFW Drive
Stone Mountain, GA 30083
Contact: Frank Haynes, KV4SP
Email: fhaynes@vatmom.net
(678) 467-3712

First Sunday, EVEN Months
VEC: WCARS and W5YI
2 pm @ Barrow Co. Emerg. Serv. Bldg
66 McElroy Street
Winder, GA 30680
Contact: Mike Wolcott, W4WYI
(404) 281-6581
E-mail: W4WYI@ARRL.net

Fourth Tuesday
ARRL VEC
7 pm @ United Way Service Center
6279 Fairburn Rd., Douglasville
Contact: Jessie Clower, KB4WFK
(770) 942-6466

Fourth Sunday
2:30 pm Georgia Tech
VanLeer Elec. Building
Rm. W218, 777 Atlantic Dr.
For more information go to www.w4aql.com and click on "Test Sessions"

GARS VE Testing

Second Sunday
VEC: W5YI
2 pm
Fire Station #24
Mall of Georgia Boulevard
Buford, GA 30519
Contact: Dave Bruse, W4DTR
E-mail: exams@gars.org

(Suspended until further notice)

September GARS Results

No GARS VE Session.

[Other local clubs are starting to hold limited VE sessions. See the articles on Page 6 in this issue of the GARzette for more details. —Ed.]

GARS VE Team Leaders
E-mail: exams@gars.org

GARS VE Website:
http://gars.org/exams

[Please check with each club for meeting schedule and method (online, etc.) - Ed.]

First Tuesday
Kennehoochee ARC
Fire Station #1, Training Room
112 Haynes Street, Marietta, GA
Meeting begins at 7:00pm
Talk In 146.880(-)

First Thursday
Atlanta Radio Club
Georgia Red Cross HQ
1955 Monroe Dr., Atlanta, GA
Meeting is at 7:30pm
Talk In -146.820(-)

N.E. Georgia ARC
Commerce Public Library
1344 South Broad Street, Commerce, GA
Meeting is at 6:30pm
Talk In - 147.225(+), PL 123.0

Second Monday
Georgia Tech ARC
Room W218
Van Leer Electrical Engineering Bldg.
Georgia Tech Campus
Meeting at 7:00pm

Sawnee Amateur Radio Association
Beaver Toyota
1875 Buford Highway, Cumming, GA
Meeting at 6:30

Second Thursday
Alford Memorial Radio Club
Annistown Road Baptist Church
Annistown Rd & Spain Rd
Stone Mountain, GA
Dinner at 6:00pm, Meeting at 7:30pm
Talk In - 146.760(-)

Second Saturday
North GA QRP Club
Board Room of The Shepherd Center
2020 Peachtree Rd, NW, Atlanta, GA
at 10:00 AM

Third Tuesday
North Fulton Amateur Radio League
Alpharetta Recreation & Parks Dept.
Alpharetta Adult Activity Center
13450 Cogburn Road, Alpharetta, GA
meeting at 7:30pm
Talk In - 145.47(-)
For more information, go to:
http://www.gars.org/

GARS Supporters

[Note: HRO is now open to walk in traffic on a limited basis at all locations. - Ed.]