

*North Fulton
Amateur Radio League
NFARL eNEWS*

April 2021

*Over 40 Years Promoting
Service | Friendship | Education | Fun*

www.nfarl.org



Midnight Rider presented by Jack McElroy, KM4ZIA / Mike Riley KN4OAK

Please join us April 20, 2021 for our club meeting as we welcome our Guest Speaker, Jack McElroy, KM4ZIA.

High altitude balloons aren't something you are likely to find listed as a hobby by most of the population. In reality, it is unlikely most of population will encounter first-hand a balloon intended for high altitude use during their lifespan. This doesn't mean that high altitude balloons are not interesting. It does imply there may be a lack of understanding of what they are, how they can be used, and where you might find an opportunity to encounter or observe one. Luckily, there are a few hams in the North Atlanta area who have a bit of high altitude balloon experience and one of them has agreed to share his most recent extraordinary high altitude balloon adventure.

Please join us as we welcome Jack McElroy, KM4ZIA as our guest speaker for the North Fulton Amateur Radio League April club meeting. Jack's presentation will fill us in on the Midnight Rider KM4ZIA-3 voyage, along with key points on the preparations for the journey. Join us, if you are able, using the information to the Zoom meeting below.

Jack McElroy is a 14 year old who enjoys high altitude balloons, satellite tracking and communications, science, mathematics, DX radio and contesting. Check out some of the events Jack and his family have been involved in by searching on "Jack McElroy KM4ZIA". You'll discover that this young man is doing a fine job in his ham radio adventures, as well as positioning himself for future success. We look forward to hearing from Jack on April 20, 2021.



April Club Meeting Invitation

Please use this information to access Zoom and join our April club meeting.

The meeting begins on Tuesday April 20, 2021 at 7:00PM EDT.

7:00-7:30PM Social Gathering

7:30 PM-7:45PM Greetings & Club Business Update

7:45PM Guest Presenter: Jack McElroy KM4ZIA **"Midnight Rider balloon KM4ZIA-3"**

Join Zoom Meeting

<https://zoom.us/j/97457915550?pwd=TzdJMFFFDN2lSMzBLY1BGK3VhdDNxQT09>

Meeting ID: 974 5791 5550

Passcode: 940060

President's Corner / John Norris, N4IHV

Hungry Hams lunch at Slope's BBQ has taken on a new meaning to me. I realized this past Wednesday the importance of seeing each other in person. Typically, during this Covid issue, Hungry Hams lunch at Slope's consisted of a small group of 2-5 people. This past Wednesday we had 15 people, which included old and new members. It was like having a visit with a relative that one had not seen in quite some time. I got to see new members and learn something about them and old members I had not seen in a while. It is very difficult to have those types of conversations on a club Zoom meeting. I recall the many similar conversations between members and guests that always occurred during the fellowship period at our NFARL Club meetings in Alpharetta. Please take time to come to Slope's on any Wednesday for lunch and you will not be sorry. Hopefully it will not be much longer for us to wait for the in person club meetings.

I hope everyone had a wonderful Easter. The Georgia QSO Party was the 10th-11th of April and hopefully you did not miss participating. It is one of our most fun events of the year. Don't worry about your operating skills during any of these events because we all had to start somewhere. Just tune into some stations and listen a few minutes for familiarization then start having fun.

This such a good time to build and learn more about our hobby. Be sure and follow the big balloon, Midnight Rider, adventure by the McElroy family. They are the future of HAM Radio and we are so proud they are a part of NFARL! You can track Midnight Rider here:

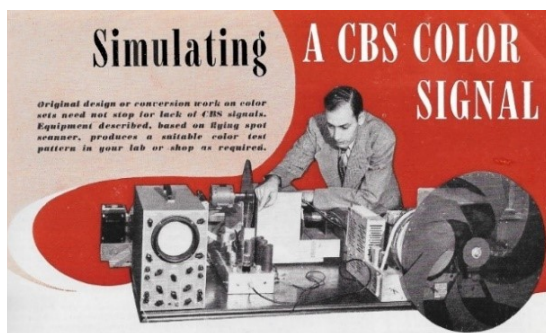
<https://aprs.fi/#!mt=hybrid&z=5&call=a%2FKM4ZIA-3&timerange=604800&tail=604800>

Have a wonderful and safe month.

John, NFARL President

N4IHV

The Case for The CBS Goldmark 1 / Tony Santoro, WA3TRA



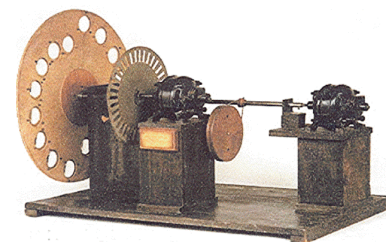
Growing up in the 50's my Dad had a television repair shop. One day he brought home an open frame television set with a motorized color wheel mounted in front of the picture tube. As kids, we had no idea what it was, except the wheel spun, and it made cool colors. The set was actually a **CBS Goldmark 1 television**. The model competed with the RCA broadcast signal which is what you have today.

Just a few notes on how this works. The original television process is based on a timing and line scanning model.

It was invented by Paul Nipkow around 1885. Notice the holes in the wheel to the right are spiraled towards the center to synchronize with each scanned line.



Now look at the color wheel to the left. Notice the size of the three color sections and how they are shaped. This color system was designed in 1939 by Hungarian engineer Peter Carl Goldmark who introduced the electro-mechanical system while at CBS. The disc is made of red, blue, and green filters spinning inside a television camera at 1,200 rpm, and a similar disc



Nipkow wheel

spinning in synchronization in front of the cathode ray tube (CRT) inside the receiver set. Here is a YouTube demo of a test model. [Home made Mechanical television - YouTube](#)

Monthly VE Test Session at Slope's / Wes Lamboley, W3WL

The latest test session held at Slope's BBQ saw 8 exam candidates either get their first licenses as Technicians or upgrading to General/Extra. As usual, it was fun to hear how they got interested in ham radio and learn a little about them and their goals for the new license.

Some of the stories include one guy whose Dad was a ham and was always encouraging his son to get a license as well. The Dad has now passed, but his son now has gotten his license. One lady is now an Extra, thanks to encouragement from her Husband, an Amateur Extra .

Another lady got interested in radio while in the Navy, particularly in EMCOM and the technical aspects of radio. She will be getting involved with ARES, thanks to the leaders of our ARES- Grant, KK4PCR and Tom, AJ2Y being on hand after the test session to explain ham radio EMCOM to all the test takers.

One guy and a friend were going to get licensed together. The friend backed out, our guy didn't and he is now interested in ARES.

Richard Fowler, KX4RLF, is a NFARL member and he upgraded to General. How he got his Technician license from Guam is an interesting story, and will appear in an upcoming issue of the NFARL eNEWS.

We are really fortunate to have Slope's and their hospitality available to our test takers during COVID so they did not need to go to Guam!

Needless to say that it is truly enjoyable to meet all the exam candidates and I am really looking forward to in-person meetings again when all of the Club members can have the opportunities to chat together like we were able to at Slope's on the 10th!

73,

Wes W3WL

Candidate Name	Test	Call (If Any)
James E. Morgan	Technician	KO4PJM
Richard L. Fowler	General	KX4RLF
David C. Grieg	General	K5TXS
Dennis C. Guinn	Extra	KO4EAM
Vicki L. Waits	Extra	KE4ICX
Thomas A. Tarabicos	General	K4OPA
Robert J. Brown	General	KO4NDZ
Jami L. Tucker	Technician	KO4PJM

Stray- ARRL Through NFARL / Jim Stafford, W4QO

Did you know that you can join the ARRL through NFARL? If you are new member subscribing for the first time, the club gets about ¼ of that initial price – not a small amount. It's \$49 per year and the club will get a couple bucks even with your renewal. The ARRL is more than just a nice monthly magazine. They represent us in Washington before the FCC in rule changes and enforcement. Check this out by going to the NFARL MART on nfarl.org and check out the available purchases, including ARRL.

The Adventures of K4M April 10-11, 2021 – GA QSO Party and POTA / by Bob Hensey - K4VBM

This tale is of an adventure by 3 hams who decided to try something new for the 2021 GA QSO party. These hams were Bob Hensey, K4VBM; Don Deal, KK4E; and Greg Gilbert, KN4APC. I (K4VBM), wanted to do something different this year for the GA QSO Party, and decided it would be fun to try something new that I hadn't done before. So I recruited two friends (above) to join in the adventure.

Initially, we thought maybe roving would be the thing to try. However, as we tried to put together a station in my minivan, it became clear that we just didn't have the time and expertise to pull off something like that for this year. So the plan was changed to try PORTABLE operation. I made an inquiry to the GA QP organizers regarding sitting on a county line, and the result was a new class with some new rules (including no county line sitting). We were all-in for giving it a try!

As we discussed plans, the new idea developed. If we were operating from GA State Parks in somewhat "rare" GA counties (to GAQSOP), we could then include something else we had never done: POTA activations. We agreed to chase that plan and see what would happen.

Packing everything in the minivan about killed me (including a full size spare tire just in case), and a wagon for moving stuff (hey, I resemble an old man).

I reserved the K4M special event call sign (would have been great for roving). Don took on the task of finding some parks to operate from. Greg provided the main radio, power supply, and battery for the adventure. Greg also helped test the set-up at Bob's house. Greg and Don also provided various pieces of equipment and gear (antennas, cables, CW key, headsets, etc.) so that computer logging was possible. Also included was a GPS to locate our operating position at each park. We used Don's phone as a hotspot for the laptops, so we actually had (sometimes spotty) internet, which helped us overcome some software driver issues as well as self-spot.



Saturday, the weather was not with us as we headed to Tallulah Gorge State Park K-2202 in Rabun County. It rained most of the day - sometimes quite hard. Set-up was difficult including lots of problems with SWR. And it got colder as the day went by, which took a toll on these 3 old men.



The Adventures of K4M .../ continued from Page 4



We did manage to finally get some QSOs late and got kicked out of the park just when a great run on 40m Phone started. Due to the rain and problems, we had aborted our plan to move to another park that day.

Sunday, the weather was much better with just a few sprinkles early, sunny and cloudy with a stiff breeze. The first park was A.H. Stephens State Park K-2165 in Taliaferro County, and after more problems including high SWR on the antenna which we fixed, we managed to get the 10 required QSOs for official POTA activation and a few more for a more respectable GA QSO Party entry at this point. We had decided to move to the 2nd park to practice teardown and set-up improvement ideas.

Stray– Amazon Smile for NFARL / Jim Stafford, W4QO

Did you know that if you order from Amazon that you can modify your purchases by using smile.amazon.com? That's right. If you use Amazon Smile and specify the North Fulton Amateur Radio League as your preferred charity, they will contribute a small amount of your purchase to your club. It is only a very small fraction but it does add up. It can be a significant amount for NFARL.

The Adventures of K4M .../ continued from Page 5

We left A.H. Stephens and proceeded to Hard Labor Creek State Park K-2184 in Morgan County. Once again, we had SWR issues with the initial antenna set-up. So we moved it, and then it was fine. And yet more issues to overcome arose, like a power cable coming loose and no way to fix it (thank goodness for the spare power supply we brought). Here we had our best runs and really made up for our rookie mistakes. We even managed a few phone contacts on 15 meters which for Bob, was one of the top 3 highlights of the weekend - another being a great phone run on 40m. Don had a fantastic CW pile-up in the last hour on 40 meters with Bob lending a helping ear. Even Greg had a run earlier on 20 meters.



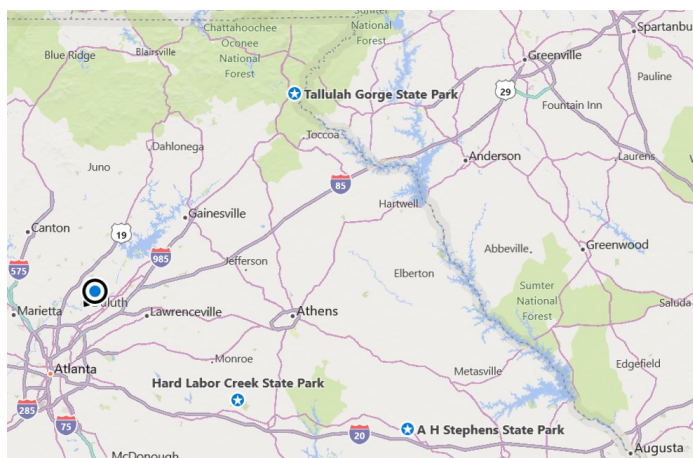
We all learned a lot about the difficulties of operating portable, but also enjoyed all the nice comments during the QSOs with the POTA chasers. And of course, even the hard core contesters were chasing us including some DX (OM2VL and DL3RXX). All-in-all, it was an adventure to remember and tell stories about, and we plan on doing some more POTA activations in the future. I recommend trying something new with friends, because in spite of all the problems, we sure had a lot of fun!

I think Greg's comment sums it all up: "A nice road trip...with my friends...playing radio!"

<https://gastateparks.org/TallulahGorge>

<https://gastateparks.org/AHStephens>

<https://gastateparks.org/HardLaborCreek>



The Case for The CBS Goldmark 1 / continued from Page 2

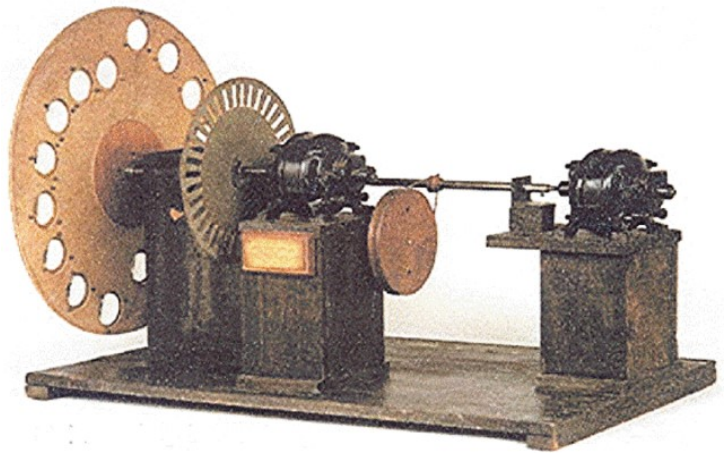
The system was first demonstrated to the FCC on August 29, 1940, and shown to the press on September 4. Source: https://en.wikipedia.org/wiki/History_of_television

CBS began experimental color field tests using film as early as August 28, 1940, and live cameras by November 12. NBC (owned by RCA) made its first field test of color television on February 20, 1941 and began daily color field tests on June 1, 1941. Since neither color system was not compatible with existing black-and-white television sets, no color television sets were available to the public at this time. Viewing of the color field tests was restricted to RCA and CBS engineers and the invited press. WW II also delayed further development.

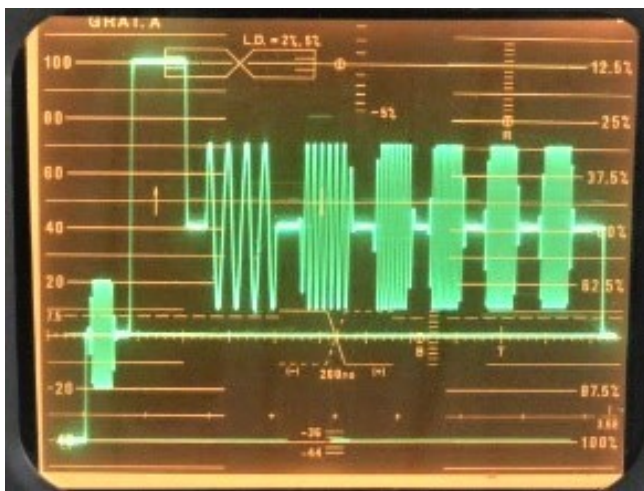
The **Goldmark 1** lost the market for other reasons; since the size of the wheel had to be larger than the screen, and broadcast compatibility problems.



Probably a 9" screen



Model of the Nipkow wheel



NTSC broadcast waveform today

As kids, we never did see a color picture (or any picture). I'm not even sure how my Dad acquired the unit. However, here is a YouTube test demo of what you would have seen:

[First Light: Goldmark 1 - YouTube](#)

Enjoy and 73s..

Tony

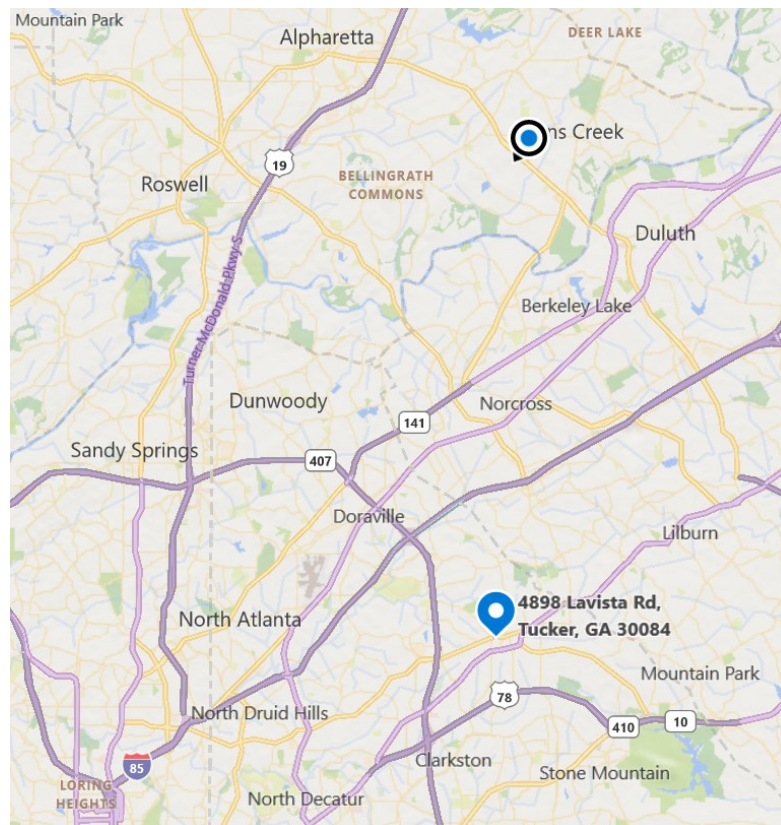
Alford Memorial Radio Club Spring Tailgating Event in Tucker Ga. May 1st, 2021 Ham Swap

Since many Hamfests and swap meets have been cancelled due to COVID-19, it was suggested that the local hams put one together for anyone that wants to sell some equipment they have or find something they need for their shack. AMRC Alford Memorial Radio Club will be having a Tailgate Swap Meet on May 1st in the rear parking lot of Tucker Recreation Center, located at 4898 Lavista Rd, Tucker, GA 30084 in Tucker, Ga. We plan to get started around 8:00 am, till 4 pm. Talk-in frequency will be the W4BOC 146.760 (- offset) PL 107.2 repeater.

- Alford Memorial Radio Club (W4BOC) will not be charging a fee.
- Coffee and donuts will be available in the morning, drinks, and hot dogs available for lunch.
- Donations will be greatly appreciated to offset our cost.
- Bring your own masks, hand sanitizers, gloves, tables, and chairs.
- Because COVID-19 is still an issue, we will take all CDC-mandated precautions to ensure that everyone remains safe.
- Anyone attending is encouraged to follow distancing guidelines, and to wear a mask if maintaining 6ft distance is not possible.

The area of the parking lot we plan to use is large enough to allow anyone to gather without being too close together. While it will not have the same feel as Hamfests, we hope this provides hams in the Atlanta area an opportunity to find something new for their shack, and chat about radio-related subjects.

Theoan LeDoux, KM4OXG President Alford Memorial Radio Club, Stone Mountain, Ga



Extra Extra! / From the Extra Class Question Pool

New info for Technicians and Generals and a refresher for Extra Class Licensees!



E2C05- What is the function of a DX QSL Manager?

- A) To allocate frequencies for DXpeditions
- B) To handle the receiving and sending of confirmation cards for a DX station
- C) To run a net to allow many stations to contact a rare DX station
- D) To relay calls to and from a DX station

See answer on the last page!

Studying for your Amateur Extra-class license?
The [current question pool](#) is effective through June 30, 2020.

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the National Conference of Volunteer Coordinators (NCVEC) [website](#).

Ian NV4C and his team hold license test sessions on the second Saturday of each month. For more information including upcoming test dates, [click here](#).

24th Calhoun Hamfest / Cherokee Capital Amateur Radio Society, K4WOC

Saturday, April 24, 2021 at 8:00 AM – 2:00 PM EDT

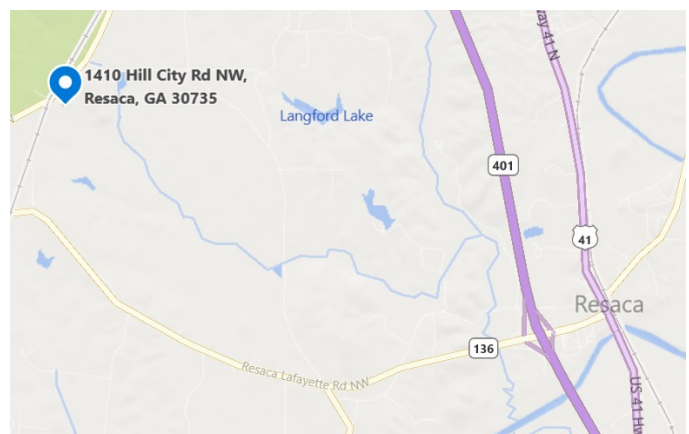
Hill City Baptist Church
1410 Hill City Rd NW, Resaca, GA 30735

\$5 admission
Free tailgating with paid admission
Free parking

JMR Sales, Altoona, AL
Featured Dealer

Inside tables \$10

<https://www.facebook.com/events/482257272786257/>



Using a Drone for Antennas / Steve Randall, K04VW

When installing an antenna, using a drone to get your line up into, or over a tree is one method I use. I've had successes and problems using drones. My drone of choice is an Eachine EX5, because it comes under the limit for FAA registration. It also has GPS stabilization. I'm sure many others would work. Since this model is sort of a Mavic Mini clone, I got a drop device from Amazon. It didn't fit exactly but a zip tie made it serviceable. Painted 1.5 ounce fishing weights are used, along with 12 lb. test fishing line on a Zebco 404 reel. I used the 404 because it will hold enough line to go over tall trees and let the weight drop back to the ground without stopping. If your weight stops because its out of line and its near any branches at all, it will spin around them and get caught. A new 404 does not have enough line on it for tall trees so strip it off and wind it back with as much as it will hold.



The first step is learning to fly and control the drone while using the camera. This will enable you to make sure the drone clears the object you are trying to make it travel over. After you master this skill, assemble the drop device, hang a weight on it and practice flying with the weight and dropping the weight without the line from the reel attached.

When you believe you are ready for installation flight, hopefully with an assistant, make sure your aircraft is all set to go for your first drop. Be certain your batteries are charged, your drop device is armed, a good GPS lock, and your camera is facing straight forward. Take off and climb altitude with your helper holding the reel and letting out line. Fly over the top of your tree in the same path you want your antenna line to run. Fly farther over the top than you think you need to as the weight will come back toward the reel a bit. I usually fly over the top and just out of sight, drop the weight, reverse back over the tree while holding altitude and then descend and land.

Do not descend with the weight and line attached as it will tangle in the props. When landing, it's almost impossible to see the fishing line. Have your helper wind the line back in until they can feel the weight lifting which will take up any slack in the line. Fly the drone away from the line far enough to make sure it doesn't grab the line on the way down to landing.

After completing the flight, I attach mason's line to the weight end of the fishing line, with the weight removed. I then reel in the fishing line to effectively replace it with mason's line. Now you have a line which can pull up your rope of choice.

When and where you can use a drone depends on your environment and flying skill level. It's a great tool to have in the box when accuracy and height are required.



Steve Randall
K04VW

U.S. Islands One Day Get Away / Fred Ackley,

Now that the GA QSO Party is over, what's next? It's our first major outing - the U S Islands One Day Get Away on Saturday May 8, 2021. Aside from Hungry Hams, this is an in-person event (outdoors) that's a world of fun. Bring your own radios and antennas to try out, or just join in on the radios we will have set up. We set up in the large pavilion at SL08203 (exclusively ours), so we have picnic tables and full cover. Electric power should be available.

Mainly, this is a picnic party! NFARL will be serving hamburgers and hot dogs, chips and drinks. Everyone is welcome and getting on the radio isn't even required! However, obviously we need to get a good idea of attendance.

So, **PLEASE EMAIL FRED ACKLEY IF YOU PLAN TO ATTEND FOR LUNCH.**

Fred's email: kk4yjo@gmail.com

Lunch will be served from about 11:AM to 2:00 PM with our famous Club chef, Mark Coleman KJ4YM. Of course, guests and family are permitted. Just give me the count.

Set up will begin between 7:00- 7:30AM. Activities will run all day, but stay as long or as little as you like. **As always, bring a mask.**

Unfortunately, we've learned that the park is not listed as a POTA entity as it appears to be under control of the Army Corp of Engineers. Thank you Richard, N1RBD, for the correct information. We're going to do a little thinking to see how we can make this into a multiple function event if possible. More to come on this later.

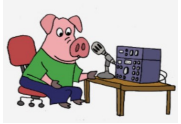
West Bank Park is located right off Hwy 20, right at the dam. Just Google it for the map, or use this link; <https://www.recreation.gov/camping/campgrounds/251919> . Expect to pay a \$5 per car entry fee as you enter the park. Questions - contact me or Terry Joyner W4YBV. Also go to the US Islands website, <https://usislands.org/> for additional details.

Fred Ackley
W4FRA
kk4yjo@gmail.com
NFARL Activities Chair

Fred's email...



NFARL Upcoming Events and Dates

- **Every Sunday — NFARES net** - 8:30 PM - 147.06 MHz (+) PL 100
All licensed hams are welcome, you do not need to be an ARES member!
Check [NFARES.org](https://nfares.org) for more information.
 - **Every Monday — Tech Talk** - 8:30 PM - 145.47 MHz (-) PL 100
NFARL's flagship technical based "non check-in" net. The net is always better when using the web based chat room (Discord) but Internet is not required to join the net. Check [NFARL Nets](#) for more information and "how to". Here's the link to the NFARL server on Discord web app <https://discord.gg/spr2a9D>
 - **Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM
Location: Slope's BBQ, 34 East Crossville Road, Roswell, GA 30075
(770) 518-7000 *Call to verify operations*
Dining Room now OPEN with COVID-19 Restrictions. Get Take Out if you can't stay!

 - **Every Thursday — YL Net** — 8:00 PM - 9:30 PM - 145.47 MHz (-) PL 100
Check NFARL Nets [website](#) for "how to." This is a great opportunity for YL's to get on the radio with other YL's! OM's (guys) are welcome to listen in to this YL net.
 - **Every Thursday — CW SIG** — 8:00 PM on ZOOM. Meeting ID is 815 5160 3634; password is CW-CHAT (all CAPS)
 - **Every Saturday — Royal Order of the Olde Geezers Breakfast** - 9 AM
Location: Reveille Café, 2960 Shallowford Road, Marietta, GA 30066
(770) 971-6800 *Call to verify operations*
Dining Room now OPEN with COVID-19 Restrictions.
 - **Second Tuesday — NFARES Meeting** - May 11, 2021 ***Online meetings only until COVID-19 Restrictions Lifted.*** Check [NFARES.org](https://nfares.org) for more information.
 - **Second Saturday – VE Testing - NFARL May 8, 2021 session: COVID-19 Restrictions in place. By reservation only.** See the "[Test Sessions](#)" web page and [NV4C's message](#) on the NFARL Groups.io reflector for details & registration process. Contact Ian at nv4c.ian@gmail.com for questions / concerns / reservations.
 - **Spalding Amateur Radio Club Video Supervised Virtual VE Exam**- Go here and review info <https://k4cxs-scarc.wixsite.com/k4cxs>
- **Third Tuesday — NFARL Club Meeting** - April 20, 2021, 7:30 PM
Online meetings only until COVID-19 Restrictions Lifted
— April 2021 Topic: "Midnight Rider" Jack McElroy KM4ZIA
Zoom opens at 7PM for Social Networking. Meeting begins promptly at 7:30
- **Fourth Tuesday – NFARL Executive Team Meeting** - April 27, 2020, 7:00 PM
Online meetings only until COVID-19 Restrictions Lifted
— monitor website and NFARL Groups.io reflector for updates.
 - **U.S. Islands Awards One-Day-Getaway (1DG)** - May 8, 2021 West Bank Park, Lake Lanier, GA Go here and review info https://nfarl.org/US_Islands_2021.html

Contact Us

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North Fulton Amateur Radio League

P.O. Box 1741
Roswell, GA 30077

nfarl.org

eNews can be located online at:
<https://www.nfarl.org/enews/eNewsIndex.html>

Club Repeaters

Frequency—Description	P.L. Tone	Location
145.470 (-) EchoLink Node 560686 NF4GA-R	100 Hz	Morgan Falls
147.060 (+) Primary ARES Repeater	100 Hz	Roswell Water Tower
* 224.620 (-) Joint Venture with MATPARC	100 Hz	TBD
443.150 (+)	100 Hz	Roswell Water Tower
444.475 (+)	100 Hz	Morgan Falls
* 927.0125 (-)	146.2 Hz	TBD

* Currently off the air

Club Call signs: NF4GA and K4JJ

Extra Extra answer: B (question E2C05)

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SLOPE'S BBQ

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