



*North Fulton
Amateur Radio League
NFARL eNEWS*

June 2019

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

www.nfarl.org



NFARL at July IEEE Symposium/ Wes Lamboley, W3WL

NFARL will support the amateur radio booth at the Institute of Electrical and Electronic Engineers (IEEE) symposium being held in Atlanta July 7 thru 12, 2019. The symposium will host over 1,500 people from 23 different countries getting together to present papers, learn, and discuss the subject of antennas and propagation. There will be many "hams" among the attendees and activities include a special breakfast and two license testing sessions that are already sold out!

The ARRL is supplying us with over \$600.00 worth of prizes to be given out as well as informational pamphlets

describing ham radio to folks that may not already be hams. I personally am excited about our opportunity, and am looking forward to interacting with the attendees regarding how they got into amateur radio, how ham radio benefits their careers, what aspects of ham radio do they enjoy the most, etc.

For a true "Tour de Force" of the Symposium, please follow the link to the official web page <https://2019apsursi.org/Default.asp> and look around in the "Programs" section. My mind was quickly blown away by some of the paper titles; I might just be out of date!

Please do contact me if you are able to help participate in our booth at the symposium.

We will get in free as an exhibitor and will have our parking paid for as well at the downtown Hilton. Contact me at weslamb@aol.com or give me a call at 770-642-2087 for more information or to sign up for Booth 73 at the symposium!



2019 Field Day



Please join us for Field Day on Saturday June 22 starting at 2pm through Sunday June 23 at 2pm.

NFARL's Field Day activities will take place at:

Grovesway Community Park
160 Dobbs Drive
Roswell, GA 30075

We hope to be among the "best attended" field days nationally, so bring (or tell) a friend or two to introduce them to the great hobby that is amateur radio!

For more information visit: <http://www.nfarl.org/fieldDay2019/fieldDay2019.html>



Extra Extra! / From the Extra Class Question Pool

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



E9A07— What is meant by antenna gain?

- A) The ratio of the radiated signal strength of an antenna in the direction of maximum radiation to that of a reference antenna
- B) The ratio of the signal in the forward direction to that in the opposite direction
- C) The ratio of the amount of power radiated by an antenna compared to the transmitter output power
- D) The final amplifier gain minus the transmission line

See answer on the last page!

2019 City of Roswell Proclamation: Amateur Radio Week

WHEREAS: Amateur Radio Operators are celebrating over a century of human voice broadcast over the airwaves and Amateur Radio continues to provide a bridge among societies and countries creating friendships and sharing of ideas; and

WHEREAS: The North Fulton Amateur Radio League members have provided countless hours of uncompensated community service by providing backup communications services to the City of Roswell Police and Fire Departments, communications to local charitable events, and other organizations throughout the region; and

WHEREAS: The City of Roswell recognizes and appreciates the diligence of these “Hams” who also serve as weather spotters in the Skywarn program of the National Weather Service and provide relevance in our highly modern technical world by providing emergency communications when other systems may fail; and

WHEREAS: The North Fulton Amateur Radio League will participate in a yearly national event sponsored by the ARRL called “Field Day” as an emergency preparedness exercise that will take place on June 22th and 23th at Waller Park Extension. This event will demonstrate Amateur Radio skills and readiness to provide self-supporting communications without further infrastructure being required.

NOW THEREFORE, I, LORI HENRY, Mayor of the City of Roswell, Georgia, do hereby proclaim the week of June 17th, 2019 as Amateur Radio Week in the City of Roswell, Georgia and urge all of our citizens to attend the Field Day and recognize the importance of this event and the significance of amateur radio to our citizens and our community.



NFARL members with Mayor Lori Henry and members of the Roswell City Council

K3UT AND N4TOL activate barrier island in the Golden Isles of Georgia.

For the Memorial Day holiday this year, I prepared to operate and activate St. Simons Island for NFARL in the U.S. Islands 25th Anniversary Award Program. The plan was to operate as QRP portable while participating in the CQ Worldwide WPX CW contest over the weekend.



As I had done in years past, I packed my YouKits HB-1B QRP CW transceiver along with my MFJ short hamstick for 20 meters. My typical operating routine would consist of a couple of hours of late morning activity with the hamstick mounted atop the SUV with a magnetic mount. Temporary antennas are not workable with our rented condo on the first floor, so operating in the parking lot provides some open space and does not disturb other family members. I position myself in the driver's seat with a travel keyer and power the rig through the cigarette accessory plug. The major downsides of this operating position are that is a very hot environment sitting in the vehicle on the asphalt parking lot, and valuable beach time and breezes are foregone in the process.

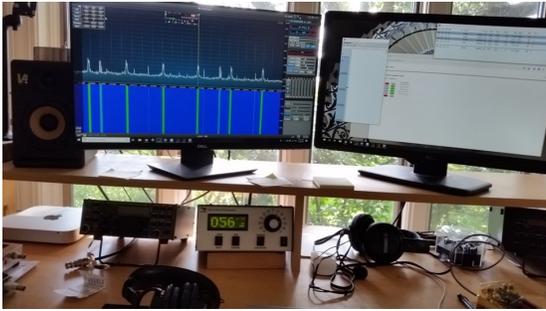
While planning my trip, I thought about Phil Graitcer, K3UT (ex W3HZZ). Phil is a former Atlanta resident who now lives full time on Saint Simons Island. While he is on his permanent vacation on SSI, Phil is also in the process of building an impressive station.

Phil operated in this year's Georgia QSO Party with the special 1x1 call sign N4L as part of the "Spell NFARL" initiative. Phil operated in the GQP from his home station on St. Simons Island. My plan was to personally deliver to Phil his "NFARL Challenge" certificate for his participation in the GQP and to visit his island home and "shack".

On Saturday morning, the first day of the CQ WPX contest, Phil came by the condo to pick me up for a shack visit. I figured after a couple of hours visiting with Phil, I would return to my condo setup and knock out a few QSOs from the parking lot and activate the island in the contest.



U.S. Island Activation (continued)



The main rig at K3UT is a Flex 6400. The Flex sits just below his custom made desk that is positioned by a wall of windows that provide a picturesque view of the marsh out to the ocean.

As Phil and I got lost in ham radio chatter, the time passed quickly. I soon realized that the morning window for my operating plan for the CQ WPX had passed. Then Phil suggested that we activate SSI from his station. Great idea!



We tuned up the Flex 6400 on 20 meter SSB into the Hex Beam and called CQ. For about two minutes things were slow, then the pile-up for the U. S. Island started. In just under 20 minutes of operating time, we worked 17 stations from 12 different states. As the pileup slowed, we decided to shut down the operation, as Phil had grandchildren on route from Atlanta, and I had family waiting on the beach. Although operating QRP from my car can be a fun challenge, it was certainly a thrill to run a quick pileup from a first class (and comfortably air conditioned) station.



Where to start? Hamvention this year was one of the best IMHO and due in part to – NO RAIN! Other than that, it was filled with hundreds of activities, forum, vendors – both commercial and flea market! I can only recount what I was part of but I did try to take in as much as possible.

Four of us piled into my SUV – Paul, W4KLY, Mark, KJ4YM, Jim, N4TMM, and me to head up early Wednesday morning – May 15. We're all in the North GA QRP club and go up ONE day early to get in on the Four Days in May QRP event. That's all day Thursday full of seminars related to QRP things. All were great speakers but some you may have heard of are Hans Summer, G0BPL, of QCX (QRP LABS), Asher Farhan, VU2ESE, of uBITX fame, and Jack Pardum, W8TEE, QST and Arduino author. The evening was a mini-hamfest with perhaps 20 vendors in the hotel ballroom with plenty of products.

Friday saw us off to the Hamvention along with 25,000 others. The facility at Xenia is in its third year and each year gets better and better. We saw lots of new products, transceivers (Elecraft K4 poster), antennas, and accessories – probably about 400 small to large businesses represented. There is always some kind of price war going on. Icom 7300's were flying off the shelves. I went to three forums Friday – Ham balloons, Instructor forum (saw the Sun lady – Dr. Skov), and Kit Building (K0NEB).



Friday PM took me back to the QRP hotel (we book the entire hotel with over 300 QRPers attending) to the Build-a-thon where I along with 40 others built an oscilloscope package with one of the little solid state o-scopes. Then Friday evening was QRP club night and project contest. This year one category was "build a transmitter to get the most output power using only 2N2222s". One of the North GA QRP club members (Harold Smith, KE6TI) won in the "tube transmitter" category.

Saturday it was off to the hamfest which began with a spree through the flea market. I held back and only bought a couple of small things. I visited for about 45 minutes with Budd, W3FF, of Buddipole fame. I was on one of his famous island DXpeditions back in 2013. I also attended the youth forum with Carol Perry, WB2MGP, who has moderated this three hour forum for the past 25 years. The youth speakers were quite impressive as usual. She also introduced NFARL member Audrey, KM4BUN, who is going on the Youth DX Adventure with her dad, Tom this summer.



During the lunch time, three of our group (KJ4YM, N4TMM, and me) got our picture snapped at the SKCC photo session and it appeared in this month's newsletter <https://tinyurl.com/y63my63x> Speaking of lunch, there must have been 25 food trucks serving the huge crowds this year so the wait was not that bad. You could get everything from sushi to BBQ ribs.

We headed back to the hotel and the BIG QRP banquet Saturday evening where none of us won a single prize (and there were probably 75 of them). Then up early on Sunday, head home, stop at White Castle hamburger in southern KY for lunch and arrive in Roswell by 6pm. Whew!

How A Western Union Splice Can Save The Day / Bob Hensey K4VBM

It is really annoying when your wire antenna breaks, and it has happened to me twice already this year (there is a first time for everything, and this is the year of first time broken antennas). Yes, the dipole had been up for over five years and it was in really bad shape so I had to make a new one.

A good ham friend of mine suggested that I try a Western Union Splice on my recently broken loop



antenna which had not been up that long (thank you, Steve, K7SWF). So I decided to give it a try. Here is a link to a YouTube video that shows you how to do it: <https://www.youtube.com/watch?v=IsZvHrMIoNs>

The hardest part was getting hold of the broken ends of the antenna - one which was pretty high up draped down the trunk of a large pine.

My 28 foot extension ladder solved that problem. Next was getting enough slack in the antenna so that I could get the broken ends close enough to do the splice. That involved dropping three sides down by loosening the support ropes.

So finally, I had the ends close enough where I could do the splice. I set up a temporary workstation (AKA outside wooden stool) outside and ran a 50 foot extension cord over to it.



How A Western Union Splice Can Save The Day (continued)

Took out my supplies (I took the picture before I got the solder gun out there) and proceeded to make my first Western Union Splice. Probably not the best, but it was strong even before I soldered it.



I put the heat shrink over it (yes, I did remember to slide on the shrink tubing on before making the splice). Got the antenna back up in the air and it seems to be working fine.

You can see in the last picture how much sunlight deteriorates the insulation on the wire.

The Western Union splice works great and beats making a whole new antenna. Hope this tip can help you when your wire antenna decides to go-to-pieces!



NFARL Ham Highlight!

Get to know some of our newer and more established hams!

Mike Riley, KN4OAK
Johns Creek, GA

Amateur radio was on the "I'd like to investigate that hobby someday" list for many years of my adult life. I knew a few folks who were ham enthusiasts, some at work and some in the community, but my opportunity to get involved never really seemed to materialize. I was always doing something else. In 2009 my wife Lynne was invited to the NFARL Field Day event given her then role as Fulton County Commissioner. She invited me to come along and I had a great time watching how the rigs were operated, how satellite and Space Station contacts were made, and how the CW station ran. If I recall, we've been to most of the NFARL Field Day events since, thanks to invitations from Jim Paine, N4SEC. Field Day remains an interesting event to me. The contesting aspect on top of the operational practice session is a key element to my interest in ham radio.

I was granted my Technician license in July 2018. In October 2018 I was granted an upgrade to General operating class. I had retired from my professional career in August of 2017, so now I had some time to get after the list of "I'd like to investigate that hobby someday..." Study for the license exams was fun in a certain way because I felt like I now had the chance to learn and practice a new skill set. I seem to learn something about Amateur radio almost every day. It's very likely I'll try to achieve a grant to Amateur Extra sometime in the next year or so.

I'm certain I can state I have more than one Elmer. Jim Paine, N4SEC, is probably whom I've relied on most to provide advice and get assistance from. Jim's wisdom and insight has pointed me to a number of other NFARL members who have unique ham experience and knowledge. Terry Joyner, W4YBV is a ham who provides me with some great coaching on contesting and field setup. Jim Stafford, W4QO, and Neil Foster, N4FN, insights on shack set up, QSLs, DX, achievement recognitions, logging, CW, etc. And the list goes on... Every time you talk with or observe someone who has experience and knowledge to share, you are getting a gift. Be thankful.

So, what's the easiest and lowest risk cost rig to own? I think it's a low cost, simple, no-frills hand held transceiver. My first HT is a Baofeng UV-5R. You can learn a bunch of basic operating skills and get experience with RF from one of these. Then you can start to investigate QRP, antenna optimization, and repeaters.

The next best first rig might be one you can borrow. Jim, N4SEC, let me borrow a FT-897 and it proved to be worth the effort to me. Borrowing means you're committed to taking care during your period of oversight and use, maybe to a level that might exceed how you act when you use your own item(s). The good thing is I force myself to think about how I'm going to use something borrowed before I act and use it. This results in generating questions and talking plans over with your Elmers. You quickly get into the mode of continuous learning.

NFARL has equipment available for loan from our club's inventory! We have a variety of solid state HF transceivers with antenna tuners, power supplies, antenna tuners and VHF radios. For information on borrowing a club radio or accessory, contact program manager John N4TOL at N4TOL@nfarl.org

NFARL Ham Highlight! (continued)

I'm lucky to claim about 40 square feet of basement space for my shack. I installed a ground bar, had access to an old desk with two 120VAC power outlets and a comfortable chair. Space is unfinished, lighted and heated. This makes it easy to adjust and rearrange when installing new gear and trying new set ups.



I've have two "home brew construction" antennae connected to my shack. One is a 40M center fed dipole. The other is a 2M/70cM J-Pole. Both allow me to get on the air. Total material investment for both antennae is less than \$300, including the feed lines. My feed lines are 125 feet each, the HF is RG218 and the VHF/UHF is 25400. The lines and connectors cost more than the antennae, but they are

long-term investments that I'm comfortable with.

My present rig is an Icom IC-7100. I like this radio because it covers HF / UHF/ VHF and D-STAR. It has also been commercially available long enough for the design to stabilize and operating characteristics/issues identified. I have a borrowed ID-800h that is going into my car as well.



Ham radio is a wide ranging area of experiences and expertise. It is interesting because of the technology links and the sportsmanship opportunities. The most pleasing thing is that I find myself in a continuous learning mode while involved in the Ham radio environment. You can ask anyone a question and get some type of answer. You can explore communication based, and scientific topics. You can listen in on net transmissions and get a feel for individual behaviors and points of view across a wide geographical area. The technology aspects are very much driven by user requirements. It's all interesting.

Field Day is one of the places where the technology, operating processes, and sport come together. There are so many different measures of success that it's hard to be disappointed with any participation in the Field Day event. During 2019 I will get to experience my first "start to finish" level of participation and I'm looking forward to it.

My ham goals for 2019:

- Become proficient in using the capabilities of rigs that I have access to
- Enjoy the experiences of operating and participating in the NFARL club and related ham activities
- Get to at least 5 WPM on CW
- Build a functional toolbox / tool bench of radio and electronic equipment tools and basic maintenance and repair skills
- Get a mobile rig set-up functioning
- Begin my trek to an Amateur Extra license grant
- Identify my next set of ham-related goals

Thanks for listening!
73 and de,
Mike, KN4OAK

No, this is actually NOT a step by step article on how to learn Morse Code. Well, then what is it? It is just the result of an exploration into something I heard about as a youngster trying to get my ham license or improve my code speed after I had my license, KN9MAF. Can't remember the first time I saw an ad in QST for the Candler System. The System was marketed out of Asheville, NC (long after Candler died in 1940) by his wife who was also a telegrapher. The ad appeared in QST until 1959 or maybe a year after I was licensed. As I recall it was intriguing, but probably too expensive for a 17 year old back then.



Of course, having moved to Atlanta 35 years ago, the name Candler is quite familiar in this area so every now and then, I wonder if there is a connection. Asa Candler was the founder of Coca-Cola and endowed Emory University in 1914. They named the theology school after Candler. So there might have been some connection. Not that I can find, but our Walter H. Candler had learned the American Morse and applied for a job right here in Atlanta at the Western Union office. He lasted two days before being dismissed. He went back to being a railroad telegrapher but spent several years developing his skills and working out a "course" to teach others the skill.

I had googled Candler a few times in the past but recently found a most interesting article called "The Candler System". http://www.9h1mrl.org/ukrae/arc_cd/extra/morse/html/c30.htm And it is great reading. I highly recommend it.

This link has some pretty respectable tips while outlining the Candler Junior Code Course. Probably the most obvious to all who undertake to learn code is to do it EVERY DAY for 30 minutes; he recommended two 15 minute periods of total concentration. It is very good info and covers some things I still am not able to do easily – namely, copy behind. By that he means to copy in the head and write it down behind a bit or type behind a bit. I have heard this is a real skill I should try to master. We'll see.



Here is a quote I discovered from the 1940 Amateur Radio Callbook by the famous Ted McElroy who won many code copying contests in his lifetime. McElroy says: "Practice alone will not develop your coordinative faculty, necessary to skill and speed. You must be taught how to practice – to use your MIND – as I was taught by CANDLER. His system is the easiest way I know to learn code RIGHT and to acquire skill and speed." This is likely from an advertisement for the Candler System. McElroy also developed and sold all manner of code sending equipment.

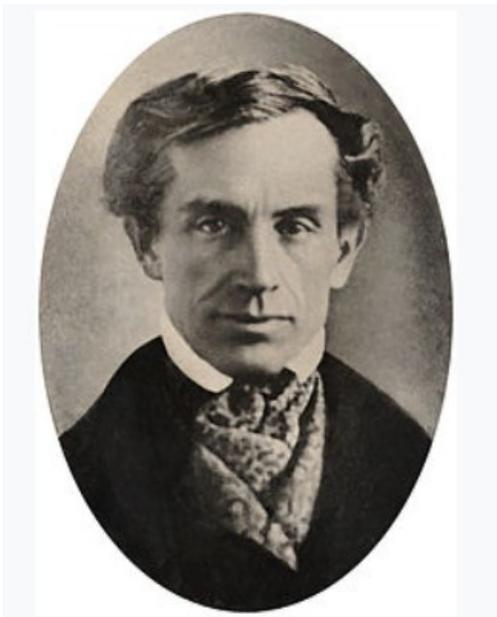
Learning the Morse Code (continued)

There is more in the Callbook ad. For example, the story of Jean Hudson, W3BAK, who at age 14 in a contest in Asheville copied 45 wpm on a "mill" (a type of typewriter) easily. It goes on to say, "If you've practiced and practiced but can't get over the "hump" that seems to be your limit – don't be discouraged." If you want to read the entire ad, go to the end of this reference link: https://archive.org/stream/Fall_1940_Radio_Amateur_Callbook/Fall_1940_Radio_Amateur_Callbook_Foreign_djvu.txt

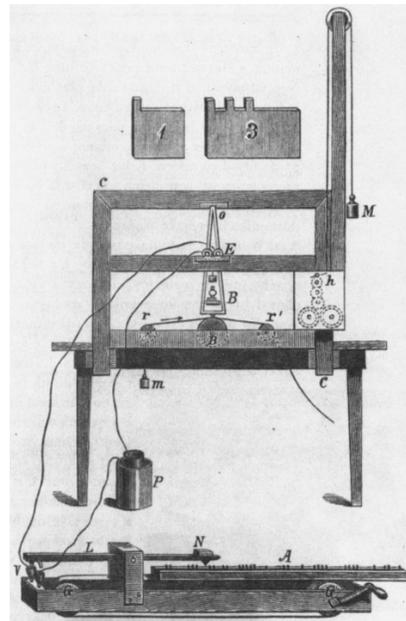
So what about that first reference? I traced it back to the 9h1mrl.org website and the radio club of Malta. That took me to their section of the UK Amateur Radio Course, the CD of which they have on their club website. And deep within is the section on Morse Code which includes the subsection "Learning the Morse Code" Whew! http://www.9h1mrl.org/ukrae/arc_cd/extra/morse/index.htm I think you'll enjoy the section "Is Morse Code Obsolete?" And sure enough, they mention that it is a valued skill of QRPers! So that's me, I guess.

They include this: There are other advantages also. It uses the narrowest signal bandwidth, which for amateur use means more channels are available within a band. It has the best signal-to-noise ratio, and in addition, an operator can soon learn to separate (mentally "filter") signals which are very close together by differences in pitch, speed and style of sending.

And remember, Morse code is the only digital mode that does not require a modem to send and receive information. The modem is your head! I hope you enjoy this little adventure as much as I have.



Samuel Finley Breese Morse, 1840



Original Samuel Morse telegraph

The first message sent by Morse code's dots and dashes across a long distance traveled from Washington, D.C., to Baltimore on Friday, May 24, 1844 – 175 years ago:

"What hath God wrought?"



Fox Hunt on June 29 / Daryl Young, K4RGK and Tim Lemmon, WK4U

We would like to invite all local Hams interested in fox hunting, transmitter locating, or radio direction finding to join us for a fox hunt on Saturday June 29 starting at 8:15 am.

This hunt will be designed for multiple skill levels hunting at the same time. In fact we will have two simultaneous hunts, one for beginners and another more challenging hunt. No experience in RDF? No problem! Seasoned Fox hunter? You will be challenged during this hunt!

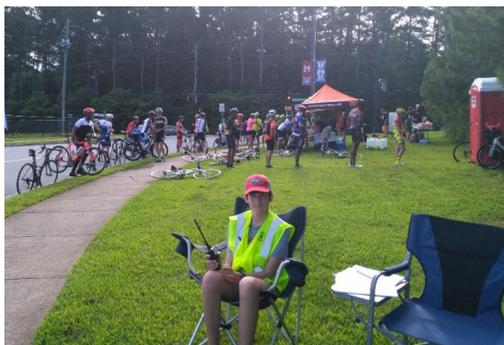


More details including the location will be published very soon on NFARL and other local club email reflectors.

NFARL is sponsoring this event for the excitement, educational opportunity, radio enjoyment, camaraderie and fellowship of ALL Atlanta area hams!

NFARES to Support Two More Events / Diane Pete, KN4KSD

NFARES will provide amateur radio support for two upcoming community events.



Colby Pete KN4KSE volunteered at Rest Stop 3 Milton High School during the 2018 bike ride

On June 30, this year's Georgia 400 Century bike ride will raise money for Emory's new Heart and Vascular Center. Thousands of cyclists enjoy a ride of 9, 26, 44, 62, or 100 miles through north Georgia including a stint on GA400. Ham radio operators will provide backup communications for the event and will be stationed at the rest stops which are located every 15 miles along the routes. There are also two motorcycle hams who ride near the peloton and call in requests for technical assistance (flat tires, etc.) or medical assistance.

On July 4, NFARES will support the Sandy Springs annual Stars and Stripes Celebration Fireworks in partnership with the Sandy Springs Fire Corps. Teams of amateur radio operators will be stationed on the top of local parking desk to spot and report by radio any hot embers that could start fires when they land on the ground or other buildings.



Sandy Springs fireworks near the King and Queen buildings

For more information about NFARES, visit their website: <http://www.nfares.org/>

All are welcome to attend the monthly NFARES meetings, held the second Tuesday from 7:00p-9:00pm at Fellowship Bible Church, 480 W. Crossville Road, Roswell, GA 30075



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!
- **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 but Internet is not required to join the net. Check NFARL Nets [website](#) for more information and "how to".
- **Second Tuesday — NFARES Meeting** - 7:00 PM - 9:00 PM
Fellowship Bible Church, 480 W. Crossville Road, Roswell, GA 30075
Check [NFARES.org](#) for more information.
- **Third Tuesday — NFARL Club Meeting - June 18, 2019, 7:30 PM**
Pre-meeting activities begin at 7:00 PM
Location: [Alpharetta Adult Activity Center at North Park](#)
13450 Cogburn Road, Alpharetta, GA 30004
June topics: GQP NFARL Awards, Field Day, and IEEE Event
- **Fourth Tuesday — NFARL Executive Team Meeting**
May 28, 2019, 7:00 PM
Location: [Arbor Terrace at Crabapple](#)
12200 Crabapple Road, Alpharetta, GA 30004
Meetings are open to all NFARL members. Space is available on a first arrival basis. Please contact the [President](#) to ensure available space.
- **Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM
Meet with your fellow club members every Wednesday!
Slope's BBQ, 34 East Crossville Road, Roswell, GA 30075
- **Every Thursday — YL OP 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.
- **Second Saturday – VE Testing** - 10:00 AM
NFARL provides Amateur (Ham) Radio test sessions on the second Saturday of each month - Walk-ins are welcome, no appointment is necessary. All exam modules are offered at all sessions.
Location: [Alpharetta Adult Activity Center at North Park](#)
13450 Cogburn Road, Alpharetta, GA 30004
Please check our [website](#) for more information.
- **Tuesday, June 18 — RSVP Deadline for Field Day Picnic**
Please send an email to FDFood@nfarl.org and let us know how many will attend the picnic and what side dish or dessert you will bring
- **Saturday June 22 to Sunday June 23 — Field Day!**
Groveland Community Park, 160 Dobbs Drive, Roswell, GA 30075
The picnic will be Saturday June 22 at 6pm
- **Saturday June 29—Fox Hunt**
Details will be published soon on NFARL and other local club email reflectors

Contact Us

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North Fulton Amateur Radio League

P.O. Box 1741
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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 Callsigns: NF4GA and K4JJ

Extra Extra answer: A (question E9A07)

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