



***North Fulton
Amateur Radio League
NFARL eNEWS***

September 2018

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

www.nfarl.org



**NFARL September Club Meeting Program:
Radio Astronomy for Amateur Radio**

Presented by:

Charles Osborne, K4CSO

Charles is an electrical engineer with vast experience in Microwave Systems Engineering. He has worked for such prominent technology companies as Rockwell Collins, AT&T and Scientific-Atlanta just to name a few. He was president of the Society of Amateur Radio Astronomers from 2002-2008 and is also a founder of the Southeastern VHF Society.



Charles' program will present the basics of Radio Astronomy, its history, how it works and also how we as amateur radio operators can experience some aspects of this amazing technology.

He will be presenting a program this month on "Radio Astronomy for Amateur Radio" at the NFARL meeting on Tuesday, September 18th.

Thank You to Our NFARL VE Team !

We recently received this note from a three time VE session graduate. (unlicensed to Extra in 3 months!) Thank you to Ian, KM4IK and all of his Volunteer Examiner team members !

Good morning,

Just wanted to say "Thank You" to your excellent VE team for making themselves available to host test sessions each month. Just attended my third test session yesterday to get my Extra license upgrade knocked out. They have been very helpful and I truly appreciate it.

Thanks ☺ Greg Phillips, W4GAP

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".
- **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.
- **Every Thursday — YL OP Net** – 8:00 PM - 9:30 PM 145.47 MHz (-) PL 100
Check NFARL Nets [website](#) for "how to."
OM's (guys) are welcome to listen in to this YL net.
Great opportunity to get your YL's on the radio!
- **Every Saturday — Royal Order of the Olde Geezers (ROOG) Lodge No. 1**
9:00 AM - Reveille Café, 2960 Shallowford Road, Marietta (at Sandy Plains and Shallowford). Everyone is welcome: You don't have to be "old" or a "geezer" to join this breakfast get-together.
- **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.
- **Second Tuesday — NFARES Meeting** - 7:00 PM - 9:00 PM
Fellowship Bible Church, 480 W. Crossville Road, Roswell.
Check [NFARES.org](#) for more information.
- **Third Tuesday — NFARL Club Meeting** - **September 18, 2018**, 7:30 PM.
Pre-meeting activities begin at 7:00PM.
Location: [Alpharetta Adult Activity Center at North Park](#)
13450 Cogburn Road, Alpharetta, GA 30004
Program: "Radio Astronomy for Amateur Radio"
by Charles Osborne, K4CSO
- **Fourth Tuesday – NFARL Executive Team Meeting**
September 25, 2018, 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.

Intro Into VHF Contesting / Bob Hensey, K4VBM

Just got back from a trip to Soco Bald Mountain in North Carolina, where I spent the weekend with the FourLanders Contest Team, W4NH, at Mile High Campground during the September ARRL VHF contest. I learned a pile of new things, had a great time playing ham radio and thought I would share my experience with you.

The campground is at the top of a mountain over 5440+ feet high. The views were spectacular! The weather was good and bad, some rain, hot and cold, sometimes perfect, and the food provided was fantastic (W4NH = Whiskey Four Never Hungry)!



Blue Ridge Mountains from Mile High Campground, the W4NH contest Site

The participants pull trailers (some with crank up antenna masts) and 2 operating and 1 storage trailer as well as a 15 Kilowatt generator. Imagine all the comforts of home at a primitive campground site. (We even had an antenna to create a hot spot so we had internet in the operating trailers to access chat groups, spotting networks, etc.) Some pulled campers, some pitched tents, one in a motel, and some just slept in their vehicle.



Trailer caravan outside Subway in Maggie Valley, NC. Not too many places to hold all seven trailers!

The first order of business was to locate the generator and 2 operating trailers in the perfect spots so that the power run would reach. Next, each of the antenna trailers was parked in the perfect spot, then antenna elements were unpacked and assembled and mounted on the masts along with feed lines and rotor control cables (this is a very serious contesting group and they have accumulated and built an amazing plethora of equipment), testing each rotor and then cranking the antennas up.

On the way up, a large caravan formed and we all kept in contact with our 2m radios reporting traffic conditions (an accident and some road construction) as well as on the spot directions to get us to a gas/rest stop, and to the mountain. On arrival Friday afternoon, we met in a small town called Maggie Valley at the base of the mountain at a Subway to fuel up and get ready for the fun.



Some of the FourLanders team members assembling the two, 5 element 6m beams prior to cranking them

Finally inside each of the 2 operating trailers, each station has to be assembled, hooked to its

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antennas, power, and tested along with its computer on the network. The team is using N1MM+ in multi-op mode so each operator can see the score progressing and communicate and pass a contact to another band for during band openings.

The team operated on the following bands: 6m, 2m, 222, 432, 1296, and some microwave bands using dishes, stacked arrays, and special antennas, and each station was putting out some serious high power, some a Kilowatt and using some high end feed line.

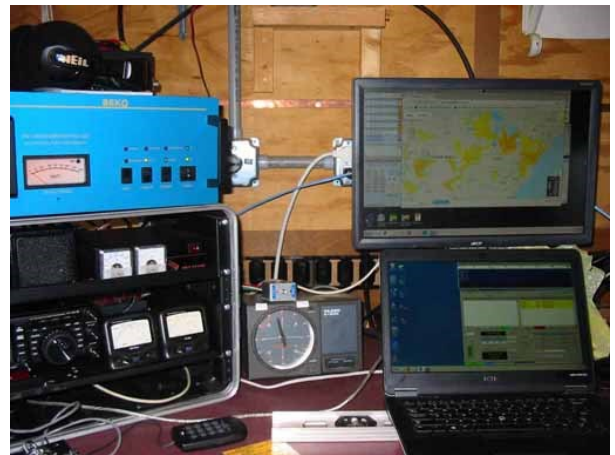
I operated some slots on the 2m and 6m station, both SSB, and FT8. I even brought my FM dual band Kenwood V7A radio and Astron 50A linear power supply which became part of the 2m station, and it was used during the contest to make some contacts. We had some issues with the Kilowatt 2m amp (kept cutting out for CW and FT8), so we added a 150 watt amp that ended up making a big difference in gathering 2m FT8 contacts.

We ate 3 meals a day in the "cafeteria", and manned the trailers 24 x 7 looking for band openings, calling CQ, and passing on contacts to the other stations.

I didn't realize and had never seen some of these



The "Cafeteria"



Inside Great White, the 2m and up operating trailer.



Inside Great White.

Two meter operating position in foreground, then Brian, NX9O the 222 MHz band captain and John, K4SQC, the 1296 MHz band captain in the background.

ham bands in operation – really cool how they took a 6 character grid square and translated it into an antenna heading and using the rotor to zero in on a signal to make that contact.

Too soon it was time to dismantle everything, pack it away, and make the caravan back home. Made some new friends, learned so much, ate too much, and had a fantastic time!

The FourLanders operate in all the big VHF contests, and love to have visitors! I recommend you visit them sometime, especially when they operate from Dahlenega.

2018 Summer Picnic/ Mark Coleman, KJ4YM

On Saturday, August 25th 2018, NFARL celebrated its first summer picnic at West Bank Park in Cumming, Georgia.

The picnic was held in conjunction with the U.S. Islands QSO party. There were 35 people attending the picnic. It was great day with beautiful weather and all had a great time. The picnic was considered a success from all the feedback, so we plan to have a picnic in 2019. Please plan on attending our summer picnic next year!

Below you will find a few pictures of the picnic and QSO party. Hope you enjoy.



WinGrid - A Useful Windows Utility / Bob Hensey, K4VBM

While contesting with the FourLanders, I saw them use an interesting windows program called WinGrid. You can get this program from W4SN's web page:

<http://www.keplerian.com/>

WinGrid V4.1 / W4SM

Main

Home Latitude
Degs Min Sec ☒ N ☐ S
33 58 45

Home Longitude
Degs Min Sec ☒ W ☐ E
84 12 30

Home Grid
EM73vx

Destination Latitude
Degs Min Sec ☒ N ☐ S
35 31 15

Destination Longitude
Degs Min Sec ☒ W ☐ E
83 12 30

Destination Grid
EM85jm

Heading (forward : reverse) Distance (miles)
27.8 : 208.3 120.5

On the left, you enter your operating location 6-character grid. On the right, you enter the 6-character grid of your QSO partner. Then you press the '*Calc. Dist/Heading*' button to see the forward and reverse heading to point your and your partner's antennas as well as the distance between. My example above shows my grid as 'Home' and the Soco Bald Mountain in NC grid as 'Destination'. Some bands, like 1296 MHz (23 cm) use beam antennas with a very narrow sensitivity. The headings provide a means of getting each operator's antenna pointed more directly at the other; increasing the chance of making a contact due to better signal reception at both ends of the QSO. These headings would be relayed via another band such as 2m, and really helped making the contact on the other band successful.

The program also calculates grid from Latitude/Longitude or Latitude/Longitude from grid.

In addition to contesting use, you could look up a desired station's grid, and use this program to point as directly as possible, and maybe help get that new contact/state/DXCC for your collection.

The headings are not extremely useful if you don't have highly directional antenna(s), but cool if you do, and the conversion function could tell you what grid you are in from GPS coordinates when operating portable such as for SOTA (Summits On The Air) or POTA (Parks On The Air) activations.

Please Say It Ain't So! / John Kludt, K4SQC

Now I suppose you could call this an "opinion piece." But this isn't the New York Times and I am not anonymous so I guess I will just have to own this....

Time was when many of us were younger and we had friends who were also much younger. We kind of hung together and took care of each other. This arrangement used to be called the "Good Ole Boy" network. One advantage of this "system" was that as an Amateur Radio club we got lots of things "for free." Combined with the mystic of the "cheap ham" this led to the supposition that we should always get most of what we needed from government and hopefully from industry at no charge to the club.

But time and technology have marched on and most of those relationships are now gone for one reason or another. As a consequence your Board of Directors has increasingly found itself in the uncomfortable position of having to pay for what used to be "free." Some examples include:

- Our Field Day Site used to be obtained with a handshake. Now there is a contract and fee.
- You may have noticed we put out fewer directional signs during Field Day. All signs in Roswell require a permit. Time was with wink and nod we got as many permit stickers as we needed. Now it is \$25 per sign which is the going rate for the size signs we use. That is just the way it is.
- Increasingly Hamfest are beginning to charge clubs for a place at the Hamfest table.
- A place for repeater antennas is getting increasingly hard to find. It used to be donated. Now, if you can find it, there may be a charge for use of tower space. Again, it is just the way it is in 2018 and presumably beyond.
- As a 501(c)(3) corporation in the State of Georgia and with the IRS there are filling fees and reporting requirements. None of this is onerous but being a registered corporation does increase the formality and sometimes the cost of doing business. For example, as a corporation in Georgia, your Board of Directors cannot take an action that requires a motion and a vote over the Internet via email. The regulations require that all members of the Board are able to hear each other real-time whenever an official action is undertaken. Show stopper, no. More formal, yes. Frequently more inconvenient, definitely.

As one of our Board Members noted, "We just have to be a little more careful with our choices. We are in a time where saying 'yes' to one thing entails saying 'no' to something else." The NFARL treasury is in good shape and there is no reason for immediate concern. But it is a different world than many of us encountered at the beginning of our Amateur Radio careers and as a club with the leadership of our Board of Directors we have been and will continue to have to adapt to this new world.

But, hey, maybe there never really was a "free lunch" anyway. We just got someone else to subtly pay the freight for us.

Items Observed at the QSO Party Picnic/ Mike, KN4OAK

These are things I Observed (and eventually may commit to memory as "learned") from the 2018 US Islands QSO Party/ NFARL Picnic.

- ◆ Wire dipoles are easy to hang in trees once you've mastered the art of throwing the bag....
- ◆ 12VDC batteries move easier once you place them onto a hand truck...
- ◆ FT8 might be a "quiet time" activity...
- ◆ CW can be successfully executed without saying a word...
- ◆ K4ZIG built a cool backpack rig....
- ◆ Loop antennae design variations are interesting...
- ◆ The FT-450 is a nice radio...
- ◆ There are plenty of club members that are willing to help you out and teach you something...
- ◆ CQ contesting is lots more interesting than what it appears to the casual observer...
- ◆ Deer sausage on homemade biscuit tastes great...
- ◆ Calling CQ takes some practice and guidance from others until you get the hang of it
- ◆ Ham radio has lots of interest areas that will likely keep me interested for a long while...
- ◆ The art of a QSO contest involves not only experience with the rig but also the challenge to capture those contacts...
- ◆ There always seems to be plenty of good food at NFARL events....

I'm doing this again in 2019!

Mike, KN4OAK

Editor Note: Mike is a new Ham and a new club member.

Welcome to Ham radio Mike and from all of NFARL welcome to North Fulton Amateur Radio League. And, thank you for contributing your thoughts and experience to NFARL eNews. This is what makes eNews great!

Island QSO Party a Successful Event / Terry Joyner, W4YBV

Our 2018 W/VE Island QSO Party from West Island GA-027L was outstanding this year and I would like to thank every one that took part from our club.

Operators for our Digital station were Jim N4SEC and John K4SQC who did a great job, our CW station operators were Jim W4QO and Kons KZ4IG who also did a great job operating from Jim's truck.



Operators for our SSB station were John N4IHV, Mike KN4OAK, Bob K4VBM, Mark KJ4YM, Bill K4YJJ, Roger N7BU, Mike NS4E and myself with 99 Q's.



This year we scored over 10,000 points! Last year had 5,890 points and placed 4th overall, so this year looks good !

As far as island Q's we made:

- ◆ Two Canary Island Q's, one with EA8AM and one with EA8DEG
- ◆ One Anguilla VP2ETE
- ◆ One New York Long Island N4MTB
- ◆ One Hawaii KH7TU

We also had one DX station, Slovenia S51DX. Over all we had over 158 Q's from our location: West Island GA 027-L.

It will be sometime in November when all the US Islands Awards Program scores are published, so look for our final tally and placing here in eNews or at <http://usislands.org/>.

I hope that everyone had a great time as I did this year. The location was fantastic and we intend to secure this same island and venue for the 2019 US Island QSO party and NFARL summer picnic! Plan to join us and bring the family! Thank all of you that came out and took part in this year's first (annual) club picnic and Island QSO Party contest.

See all the photos from our Island QSO party and picnic at <https://groups.io/g/NFARL/album?id=71592>

See you all next year!

Terry

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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	Sweat Mountain
147.060 (+) Primary ARES Repeater	100 Hz	Roswell Water Tower
224.620 (-) Joint Venture with MATPARC	100 Hz	Sweat Mountain
443.150 (+)	No Tone	Roswell Water Tower
444.475 (+)	100 Hz	Sweat Mountain
927.0125 (-)	146.2 Hz	Sweat Mountain

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