



*North Fulton
Amateur Radio League
NFARL eNEWS
November 2016*

www.nfarl.org



NFARL 1st Place in 3A - Field DAY 2016 !

Its official! NFARL placed first in category 3A of the 2016 ARRL Field Day event. This is back to back wins for NFARL! The Field Day team made 4055 QSO's, had 200 attendees and a total score of 14,810! NFARL score represents 777 more QSO's and 2308 more points than the second place team. Join me in thanking, Dr. John Kludt, K4SQC Field Day Chairman and his dedicated team who executed on their well-defined plan to defend our category 3A first place in 2015. I look forward to a trifecta in 2017!

The Stone Mountain Hamfest is in the rear view mirror. The weather was great and the boneyard was full. In addition to the NFARL booth which was well staffed on Saturday and Sunday, NFARL took the lead in the Student Shack and two satellite stations. The Student Shack is one of the activities funded with the proceeds of HamJam. Martha Muir W4MSA and Jim Stafford W4QO captained the Student Shack which had over 150 attendees and more than 30 youth engaged in a variety of Amateur Radio learning activities. Some of the highlights include:

Jay Drew - KC4JD – Hamfest tour including the boneyard, the flea market, and the Exhibit Hall

Jim Stafford – W4QO – Crystal radio and Arduino presentations

Pavel Anni – AC4PA—helped students master CW basics using code practice oscillators

Mike Cohen – AD4MC and Fred Ackley KK4JYO ran a 2M digital station

Steve Garrison - N4TTY fascinated guests, both students attending the Shack and more seasoned Hamfest visitors with his beautiful and massive teletype machine

Jay Drew - KC4JD, Clyde McClain AK4TL and others helped the students make contacts on the 40M W4Y special event station

Chuck Catledge - AE4CW engaged students with his presentation on Lenz's Law.

Cathy Freeman - KI4SBK helped students investigate and build projects with some SnapCircuits kits.

Warren - KD4Z built the Arduino based visitor and QSO counter and display that we had at the check in table

John Kludt - K4SQC, Daryl Young - K4RGK and Lori Young - K4UPI were very busy with two satellite stations that were open to the attendees. John, Daryl and Lori made dozens of contacts via satellite during the Hamfest with Hams around the US and North America.

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The Stone Mountain Hamfest was a team effort and I want to thank everyone that supported the club at Atlanta's largest HamFest.

HamJam is November 19th at the Metropolitan Club on Windward Parkway from 8am until 1pm. HamJam is NFARL's premier event to raise funds that will be used to encourage youth to get involved in Amateur Radio and related STEM activities including TechFest, Boy Scouts, Girl Scouts, Stone Mountain Student Shack and Mill Springs Academy. We have **over \$6,700 in prizes** including:

Icom 7300
Elecraft KX2
Kenwood TH-D74A
Yaesu FTM-400DR Transceiver
SteppIR SARK-110 Antenna Analyzer
Array Solutions SP-6 mast mounted 6M preamplifier

This event is open to all and admission is FREE thanks to the generosity of our sponsors and your generosity in purchasing raffle tickets. **Order your raffle tickets today at NFARL Mart** and remember the more tickets you buy the greater your chances are of winning a great prize. Visit www.hamjam.info/ for more information!

I look forward to seeing everyone at our annual Holiday Party on December 10th for an evening of relaxing with friends, fellowship and reflection on 2016. Lori Young K4UPI has been hard at work over the last few months planning a special catered dinner for us. Seating is limited so order your tickets today at the NFARL Mart!

I look forward to seeing everyone at HamJam and the Holiday Party which are the final events for 2016.

73 and a Happy Thanksgiving

Mark Schumann
KK4FOF
President
North Fulton Amateur Radio League

HamJam 2016

Its All About The Youth!



Thousands In Prizes

Icom 7300

Elecraft KX2

Kenwood TH-D74A

SteppIR SARK-110 Ant Analyzer

Plus many more...

www.hamjam.info

Raffle Tickets 5 for \$20

November 19, 2016 8:00-1:00pm

Metropolitan Club

5895 Windward Parkway, Alpharetta

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 "how to".
- **Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM
Slope's BBQ, 34 East Crossville Road, Roswell.
- **Every Wednesday — Youth Net** - 7:00 PM - 145.47 MHz (-) PL 100
Contact Martha W4MSA if you are a student, teacher or educator
- **Every Thursday — YL Net** — 8:00 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 Tuesday — NFARES Meeting** - 7:00 PM - 9:00 PM
Fellowship Bible Church, 480 W. Crossville Road, Roswell.
Check [NFARES.net](#) for more information.
- **Third Tuesday — NFARL Club Meeting**
HamJam replaces our November meeting !
Saturday November 19th, 8:00 AM to 2:00 PM
Location: Metropolitan Club
5895 Windward Parkway, Alpharetta, GA
See [HamJam.info](#) for details !
- **Fourth Tuesday — NFARL Executive Team Meeting**
November 22th, 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.

Girl Scout Stem Expo / Cathy Freeman, KI4SBK & Martha Muir, W4MSA

On Saturday, October 22, volunteers from NFARL, GARS, and ARC staffed a booth/workshop space at the Girl Scouts of Greater Atlanta Super STEM Expo 2016 at the Gwinnett County Fairgrounds in Lawrenceville. The Girl Scouts sold out 2300 advance tickets, and were expecting up to 300 more walk-in attendees – Girl Scouts from Daisy (up to first grade) to Ambassador (high school) along with their families and leaders.

NFARL has participated in this event for the last few years and always had a well-attended, well-staffed booth, so this year the Girl Scouts requested an expanded NFARL presence. The volunteers set up in one corner of the fairgrounds'

Entertainment building which was designated the Robotics building for the STEM Expo. Activities and information related to the new ARRL Girl Scout Radio and Wireless Technology patch were offered and presented. The club sold patches to leaders and parents who plan to complete the requirements later this school year.



Activities offered included a 'send your name via Morse code' station, crystal radio demos and kit



advice, Lenz's Law demos, an HF station setup, a roving radio operator, and the FCC spectrum allocation chart. ARC volunteers Newt White, N4EWT, Jim Reed, N4BFR, and Jon Richardson, KM4PEH provided two Morse code stations where the girls sent their name and received a message using a straight key and speaker/computer setup. The girls received forms stamped to show successful message communication.

Zach Haidari, AA4ZH, roamed the event with his 2m radio setup and had attendees make a radio contact back to our booth. Norm Schklar, WA4ZXV, printed ARRL Girl Scout radio patch flyers and a tabletop poster, brought many other display items and organized the GARS and ARC volunteers, as well as bringing and staffing the HF station with help from Ralph Pickwick, KJ4CNC, and Rich Waigand, K4KME. Chuck Catledge, AE4CW, brought a slide presentation, galvanometer, super magnet and the copper/PVC pipe combo to demonstrate Faraday and Lenz's discoveries that explain electromagnetic waves, among other phenomena.

Mark Schumann, KK4FOF, and his daughter helped with setup and attended the Expo. Jim

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Stafford, W4QO, provided an excellent crystal radio demonstration display to introduce attendees to crystal radio kits and provided expert guidance on which kits were worth the time and effort to assemble. Jim Stevens, KJ4QVT, was the official photographer in charge of getting great shots and signed release forms for minor subjects, and staffed the crystal radio demo display in the afternoon. Martha Muir, W4MSA, and Cathy Freeman, KI4SBK, served as greeters, handed out flyers, bookmarks and other club literature. They also introduced the patch to girls, their families and scout leaders.

Lessons learned included identifying the need for wipes for the keys and a stepstool for booth decorating. The Girl Scouts thanked NFARL for their great interactive booth and all the hams who helped introduce aspects of Amateur Radio to their very attentive audience..

Next year's Expo is tentatively scheduled for October 21, 2017. Anyone ready to sign up to help?

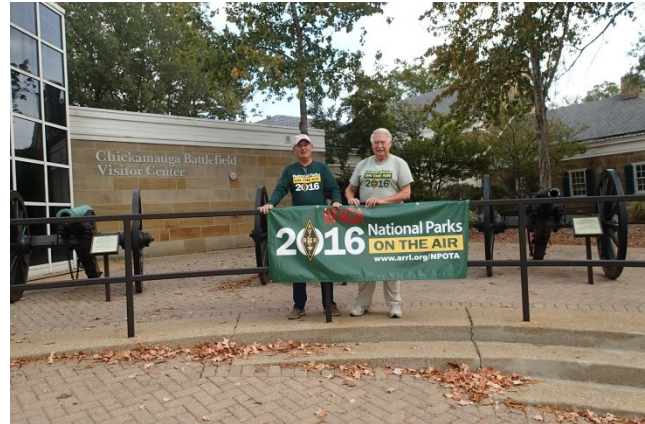


More Parks Activated by NFARL / Terry Joyner, W4YBV

Our Georgia coast trip was canceled due to park damage from Hurricane Matthew.

So on Thursday Oct. 27th Jim, N4SEC and I headed out to activate two more national parks in North GA: Chickamauga N/P MP-01 and Trail of Tears N/P TR-12. We arrived around 08:45 but our activation's were held up by the only thunder storm in the south. Yes, I said thunder storm that was right over the park for about 30 minutes! After the rain stopped we set up in the parking lot next to the welcome center and in about 4 hours we had made over 130 contacts. We worked 36 states and 6 countries.

Conditions were great on 20 and 40 meters that morning. The thing that helped us the most was we were able to activate 2 parks at the same time. Trail of Tears runs through Chickamauga park. The two for one contact had the pile ups going and it was fun.



**Terry W4YBV and Jim N4SEC
at Chickamauga National Park**

With only about 7 weeks to go we still have one more park in North Ga. and three parks on the Georgia coast to activate. Fort Pulaski may not open back up this year from Hurricane damage. Cumberland Island just opened back up but we may still have trouble getting back to the area we wanted to go.



**Terry W4YBV and Jim N4SEC
at Chickamauga National Park**

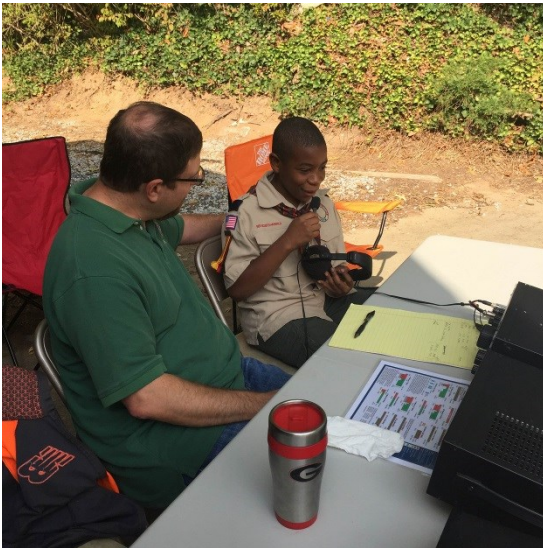
Thanks for the support that we have received from everyone this year. I hope that all of you who took part in the NPOTA program will turn your scores in to us at the end of this year for us to add to our club contest log.

Boy Scouts JOTA / Ian Kahn, KM4IK

On October 15, 2016, four members of Cub Scout Den 7, Pack 629, in Roswell, attended a JOTA event at the home of Ian, KM4IK. The purpose of the event was to complete an Arrow of Light requirement that these Webelos talk to Scouts in another country.



Ian set his K3 up in his driveway, pointed his Hex Beam toward Europe, and ran feed line out to connect the K3 to the Hex Beam. The scouts unsuccessfully tried to make contacts with stations at the German national Scouting association's headquarters and one of the British Scouting association's official campgrounds.



Finally, the boys called CQ for a few minutes and worked Brad, WP2B, in the US Virgin Islands. While Brad isn't a Scout, at least the young men of Den 7, Pack 629, in Roswell, did successfully make a DX contact. All the boys had fun, and hopefully they learned a little something about radio and what a great hobby it is.

*It's Holiday Time !
To All Our Friends at North Fulton Amateur Radio League...*

This is the time of year we get to celebrate the friendships we've made throughout the year in radio. We ask that you **please** join us at the North Fulton Amateur Radio League annual Holiday Party. This year we wanted everyone to be able to come and enjoy this event without working for the occasion. It will be a fully catered buffet dinner designed to satisfy your holiday tastes. Come join us for the camaraderie we love in this hobby. We can accommodate 72 members and guests so purchase your tickets right away. **See you there !**

Lori, K4UPI

The dinner menu includes:

- Creamy garlic herb chicken
- Beef tips
- New potatoes
- Roasted squash & zucchini
- Herb rice pilaf
- Wheat rolls
- Cheddar dill cornbread
- Fruit cobblers
- Cookie / brownie platter
- Sweet & unsweet iced tea.



VHF Contesting with the FourLanders / John Kludt, K4SQC

As I may have shared with you before, my very first phone rig was a Heathkit HW-30, "The Twoer." This little crystal controlled gem featured a super regenerative receiver and about 2.5 watts out on AM. As a Novice, KN7SYS, I became fascinated with 2 meters and that fascination persists to this day. For those of you who have never ventured down there, a whole new world exists below 145.000 MHz. The spectrum between 144.000 MHz and 145.000 MHz is populated with beacons, CW, SSB, JT65B terrestrial as well as JT 65B EME and various meteor scatter modes worked by "ping jockeys." Although rare down here, sometimes you can hear the "buzz" as people work other stations off aurora.

All well and good but what does this have to do with a VHF contest group? To improve the chances of success with these modes, good antennas and a reasonable amount of power are really helpful. Like

many of us, living in a covenant restricted setting, erecting stacked beams at 6 meters or above just isn't in the cards. Enter the Fourlanders VHF Contest group, Whiskey 4 Never Hungry, W4NH. More on the phonetics later. The Fourlanders have existed for around 30 years for the



W4NH Mobile VHF/UFH Antenna Farm

expressed purpose of fielding a competitive team on all bands between 6 m and 10 gigahertz. Our emphasis is on the major ARRL VHF contests in January, June and September.

We run stacked beams on 6m, 2m, 1.25m and 70 cm. All stations are capable of 1 KW output.

We generally run the January contest from the Dahlonega QTH of Bob Lear, W4ZST. You may have heard Bob's name in connection with the 15KW generator NFARL has used at Field Day for several



220 Mhz Station Back



220 Mhz Station Front

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years now. That generator is stored at Bob's QTH and owned by Brian McCarthy NX90, a FourLander and NFARL member. We do the January contest at Bob's QTH because our summer contest site at Mile High Campground is closed and probably under inches to feet of snow! Mile High Campground is located on the Blue Ridge Parkway near Maggie Valley, N.C. And getting to the contest site is part of the fun and adventure of being a FourLander.



**Foreground - Kos N4NIA at 220 Station
Background - Ron WW8RR at 432 Ops**

The Friday before the contest we form up our caravan. In addition to the generator we pull a large white trailer that houses 2m, 1.25m, 70cm and our Internet and LAN support equipment. A smaller trailer houses the 6m station and the "kitchen." A military mast



**6 Meter Ops
Jim W4KXY & Kim WG8S**

for the 222 MHz antennas rounds out the smaller trailer. "Black Hawk" carries a 40 foot or so tilt over crank up tower presently used for the 2m stack, while "Red Wagon" handles a 30 foot or so tilt over crank up tower handling the 6m stack. When your antenna site is on a ridge at 5,280 feet, a lot of extra tower adds little to the signal strength! Add a garden trailer and military mast like we have used on NFARL Field Day for the 70 cm quad array and assorted cars carrying operators and we have ourselves quite a convoy!

While we can run all bands through 10 Gigahertz, it has proven to be rather unproductive. The ham population density here in the Southeast is generally low enough and the distance great enough that it just doesn't pay to set up the SHF gear. Maybe with some more operators we could give it a shot. We have the transverters, amps and antennas – we just need more hands and minds to help set them up and run them.

Never Hungry! We are blessed with a good cook in Bob, W4ZST, and we are frequently visited by "guest cooks" with brisket, skillet corn bread, you name it. I did make a mistake on my first trip – I brought a bag of apples. "Apples? Who is bringing this healthy "stuff" (use your imagination) into radio camp?" Next time I brought a huge bag of potato chips!

So, what are we able to do with access to all this equipment? One September contest stands

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out for a huge opening. In VHF contests the station making the first contact “passes them along” right up the bands. Contact after contact started on 2m, was passed to 1.25m and then onto 70cm. Stations worked on all three bands ranged from Toronto into Louisiana and Texas on both SSB and CW. Not too shabby for bands thought of as being “line of sight” only! The really odd thing about this opening was that 6 meters, normally our work horse band, was completely dead. But that is VHF contesting!



W4NH Contest Campground

The Fourlanders are always looking for more operators and participants.

In this world of HOA’s and restrictive covenants participating with the group gives me access to great equipment, excellent antennas and a location that at least twice a year is literally “a mile high.” In addition I have access to a group of people very knowledgeable in QRO VHF/UHF/SHF operations who are always willing to answer questions and teach me the ropes.

If you have interest in joining the group or even in just seeing what is going on, you can contact me at k4sqc@nfarl.org or Bob at w4zst@windstream.net. Dahlonega is an easy commute and will be the site of the January 2017 contest. We hope to see you if only for a brief visit.

W4QO Tip

Tip of the Month: Want to know how to measure voltage in a circuit?

<http://tinyurl.com/hg6ns7q>

What is a joule? When would you use an oscilloscope? RMS? What's that? And you thought you knew! :)

Contact Us

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Club Repeaters

Frequency—Description	P.L. Tone	Location
145.470 (-) EchoLink Node 56086 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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