

# North Fulton Amateur Radio League NFARL eNEWS

December 2019

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### American Red Cross - North Fulton ARES Drill / Joe Schippert, AJ2Y



The successful NFARES (North Fulton Amateur Radio Emergency Service) drill, which took place in mid-November, had its roots in an invitation and a "tag along" with an earlier ARES exercise initiated by the American Red Cross. Wayne Robertson, K4WK, reached out to EC Grant Register, KK4PCR, with an open invitation to our group to participate in an August event. Wayne had already organized an exercise with the DeKalb and Clayton County ARES groups in August, focused on enhancing emergency communications effectiveness in that area. Furthermore, in the future, would North Fulton be interested in a possible

drill simulating a NF regional emergency? The offer was floated at the early August NFARES club meeting. In response, hands belonging to everyone attending the club meeting shot up.

#### What is ARES?

ARES is made up of licensed amateurs who have voluntarily registered their qualifications and equipment with their local ARES leadership for communications duty in the public service when disaster strikes. The concept of emergency communications and public service is deeply embedded in the history and essence of amateur radio. Licensed ham operators are given access to valuable segments of the radio spectrum. In recognition of the value we receive though our FCC licenses and protected access to significant spectrum, giving back in the form of public service is only logical.



#### Team Initial Preparation

Discussions, planning, and testing in preparation for the drill started almost immediately between NFARES and the Red Cross. Affiliation with the Red Cross gave us the immediate insight that in an emergency where normal communications methods were impacted, ARES might well be needed by local Red Cross shelter managers. The "what" requirement would be to relay vital two way communications between the shelter and the nationwide Red Cross organization, centralized at the downtown Atlanta headquarters on Monroe Drive. Regarding the "How", we knew we had effective area repeaters, and that many of these might also have

(Continued on page 2)

NFARES Member Tammy Waggoner, KK4USM, checks in to the exercises from Shelter 1 near Northwestern Middle School in North Fulton County.

# NFARES (continued)

access to emergency power. Nevertheless, in an emergency, many hams would likely be attempting to access limited repeater bandwidth. We therefore took inspiration from the name of our national organization, the American Radio Relay League, and decided to find out if we could fulfill our communications mission by simplex relay.



NFARES Member Steven Hull, KW4HQ, helped out the Red Cross Operators at Atlanta Red Cross HQ.

#### **RF Pathway Testing**

Our initial intuitions regarding VHF point-to-point communications from the hilly terrain of our area, into and out of the Monroe Dr. HQ, were pessimistic. ARES team members began a series of three multi-station tests which were constrained by a requirement that the communications were to be conducted from within the shelter. External antennas located outdoors from the shelter, connected to 50 watt transceivers within, was the necessary standard for the portable stations. This was steps beyond the typical handheld and J-pole in the trees that would suffice for many more localized public service events; however the capabilities of the

more robust portable stations proved to be necessary.

#### A Hierarchical Scheme for Emergency Communications

A key concept in our communications plan was use of the Sandy Springs EOC by the NFARES team. We anticipated that the workload in a real emergency would be such that direct communications of Red Cross HQ with each shelter would be unreasonable. We therefore built in a hierarchical concept, where the Red Cross would communicate with the EOC and, from there, the EOC would manage the information flow from the shelters and provide results back to the Red Cross.

#### Why Use Digital Modes?

A second key concept supporting our relay scheme was adding use of digital messaging to the normal FM voice mode. Once information is in a digital format, it becomes inherently retrievable and thus conducive to being relayed. Furthermore, training and proficiency with specific digital modes has been a key aspect of NFARES training programs. In preparation for the exercise, the team expanded training to include the relaying of messages so that if one shelter could not communicate directly with the EOC, then another, which had RF visibility to both stations, could. Finally, the technical mode used for digital communications – MT63-2KL, using the Fldigi application – has been recommended by multiple amateur radio sources due to its robust nature and ability to provide successful links over difficult paths. In fact, the NFARES team proved this last point to be true. In several instances, MT63-2KL messages provided perfect copy in cases where FM voice was barely readable. For all these reasons, the team was confident that digital modes could give us a big advantage.

#### The Drill Itself

The American Red Cross HQ station initiated the drill just after 10:00 AM on Saturday morning, Nov. 16. About 10 NFARES Members were preassigned across seven sites, including the Sandy Springs EOC, five shelter locations spread across North Fulton, and Red Cross HQ itself. We also had two NFARES members monitoring the drill from their home stations. Red Cross HQ requested that each shelter provide a shelter communications readiness report and a simulated health and welfare information message from their location. Both types of information are typical of the emergency

# NFARES (continued)

event simulated by the exercise. The NFARL 145.470 repeater was used for initial coordination among all stations. This was followed by a round of simplex FM voice communications then a simplex digital communications. Of the ten shelter to EOC digital messages, six were exchanged directly using simplex, three were relayed from one shelter via a second shelter to the EOC, and the final one was sent via the 145.470 repeater to validate the repeater's ability to relay digital message. Summary information was then compiled at the EOC and passed on to Red Cross HQ.



Red Cross Volunteer Wayne Robertson, K4WK, participated with NFARES operators throughout the preparation and execution phases of the joint exercise.

#### Drill Follow-on with Out-of-State Stations

The summary information provided by the EOC to

Red Cross HQ was further transmitted to half a dozen out-of-state ARES stations, as well as non-amateur Red Cross personnel, via VHF Packet Winlink and in parallel via HF Winlink. Non-amateur personnel received their updates via e-mails provided by the Winlink – Internet integration. Note that the Remote Monitoring Station gateway for the VHF Packet Winlink message in the North Fulton area is provided and maintained by NFARES Member Bret Arnold, N4BTA. (Bret also maintains a separate HF Winlink gateway on the air, a so-called Tri-Mode RMS station, and can deploy a portable VHF Packet Winlink station gateway for emergencies.) In addition, other messages and Red Cross forms were passed via Winlink between the out-of-state ARES stations and Atlanta Red Cross HQ.

#### **Lessons Learned**

The December meeting of the North Fulton ARES Team was devoted to extracting areas for improvement and lessons learned from the exercise. In spite of the extensive preparations, the value of the old adage "adapt and overcome" was in evidence. Two days before the drill, we discovered unanticipated problems using the .csv option when using Fldigi to send spreadsheets. Testing two days before the exercise showed inconsistent results, and lost formatting in the spreadsheets. (We think this is caused by non-standard symbols for what was called Carriage Return and Line Feed in the old RTTY days. Thanks to NFARES Member Wayne Chapman, KG5WU, for the IT sleuthing.) An alternate way to convey the necessary health and welfare information was finalized on the day prior to the exercise. This is only one example that the NFARES team will analyze to prepare for future exercises!



NFARES Assistant Emergency Coordinator Stuart Williams, AK4EX, operated at the Sandy Springs EOC during an actual loss of normal power during the exercise.

### Serve the Hobby – Become a VE / Ian Kahn, NV4C

Are you enjoying your amateur radio hobby? Want to give back, but aren't sure how? Why not do something to both give back and help ensure amateur radio's future – become a volunteer examiner.

Volunteer examiners (VEs) are radio amateurs who earn an extra certification that allows them to administer the amateur radio license exams. All VE teams serve under the auspices of one or more Volunteer Examiner Coordinators (VECs). VECs are the regional or national groups that certify VEs, produce and provide exams, report exam results on to the FCC, and ensure the integrity of our testing system. The VECs that have testing teams in the Atlanta area are ARRL, CaVEC, Laurel, and W5YI Group. There may also be others with which I am not familiar.

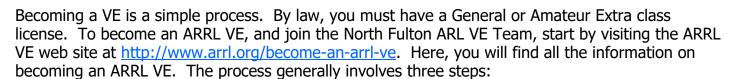
If you have taken an exam in North Fulton County at any time since about early 2008, you likely took your exam with the North Fulton ARL VE team. The North Fulton VE Team administers exams under the auspices of the ARRL VEC. These dedicated volunteers spend one Saturday morning a month preparing for and administering exams to anyone who wants to get licensed. We do not care who you are, where you are from, what you do, or what draws you to the hobby. All we care about is the interest in some aspect of amateur radio and the desire to get your license. We hold exam sessions the second Saturday of each month, every month of the year. We do not break for any other amateur radio-related activities in the area, whether they be hamfests, Ham Jam, TechFest, or any other radio-related activity.

The two biggest questions people ask about the VE team are:

- 1. How do I become a VE?
- 2. What is involved?

I am happy to answer those two questions for you.

#### How do I become a VE?



- 1. Download and read the Volunteer Examiner manual.
- 2. Download and complete the open-book quiz/questionnaire.
- 3. Submit your completed questionnaire to the ARRL VEC.

The ARRL VEC will review your paperwork. Once they deem it complete, they will send you your credentials. Congratulations! You are now an ARRL-accredited VE.

While the steps above detail how to become an ARRL VE, it is important to note that each VEC has its own process for getting accredited. Please check their individual web sites for qualifications and requirements. Also note, some of the VECs offer reciprocity in certification, if you are already certified with another VEC. Again, please check each individual VEC's web site for details.



### Become a VE (continued)

#### What is involved?

Serving as a VE involves as much or as little as you want to give. For the North Fulton team, we offer exams the second Saturday of each month. Typically, several of us meet for breakfast around 8:00 AM. We go to Alpharetta North Park around 9:00 AM to set up the room for the exam session. This involves setting up tables and chairs and putting out the paperwork for candidates to complete. The examinees start arriving a little before 10:00 AM. We get them started on the paperwork and take care of other administrivia. At 10:00, we start the exam session with a welcome, introduction of the VEs, and review of some logistics items. Then the tests begin. As candidates complete and turn in their tests, they are scored, and the candidate gets the results. Testing is usually completed by 12:00 noon, although every now and again it runs later.

Essentially, we ask you to give us one Saturday a month, from 8:00 or 9:00 AM until around 12:00 noon. You can participate as much or as little as you want. We have some VEs who participate every month. We have some who pop in and out periodically throughout the year, as their schedules allow. All are valuable members of our VE team. And, all you have to do to contribute, is show up at a session and help run it.

If this sounds interesting to you, I encourage you to get VE-certified and join our team. If you have questions, please reach out to me. My email is <a href="mailto:nv4c.ian@gmail.com">nv4c.ian@gmail.com</a>. Or, stop me at the next meeting and ask me questions. I am here to help.

73 de, Ian, NV4C Team Lead, North Fulton VE Team

The following VEs helped five candidates at the December NFARL VE Session: Ian NV4C (VEC), Pat N4MPC, Jim W4IV, Wes W3WL, Steve KS4KJ, Martha W4MSA, Mike N4MEP, John W4TXA, and Lane KB4KHQ.

Congratulations to the two candidates who left the test session having earned a Technician class license and the two who left with a General class license!





Here are 100 things to do in Ham radio.

### Contest Corner

- 12/22/19 ARRL Rookie Roundup, CW
- 01/04/20 <u>ARRL Kids Day</u>

### ISS SSTV Event Beginning Dec. 28 / John Kludt, K4SQC

Please be advised there will be another ISS SSTV event beginning sometime on December 28, 2019, ending on January 1, 2020. The downlink frequency is expected to be 145.800 MHz FM . The format is expected to be PD120.

There are expected to be 12 pictures to be shown in rotation. Generally you can get 2 pictures per pass - your results may vary!

73, John K4SQC

### Extra Extra! / From the Extra Class Question Pool

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



# E9G01 — Which of the following can be calculated using a Smith chart?

- A) Impedance along transmission lines
- B) Radiation resistance
- C) Antenna radiation pattern
- D) Radio propagation

See answer on the last page!

# Remember NFARL During Your Holiday Shopping!



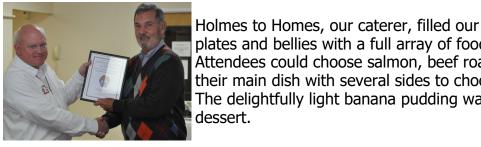
For every Amazon customer that shops on <a href="mailto:smile.amazon.com">smile.amazon.com</a>, the Amazon Smile Foundation will donate 0.5% of the price of eligible purchases to the charitable organizations selected by customers. You can go to the list of charitable organizations and select **North Fulton Amateur Radio League** as the recipient of your donations.

# NFARL Holiday Party / Martha Muir, W4MSA

NFARL celebrated another great year of Amateur Radio activities, camaraderie, and fun at its annual Holiday Party on December 7. The room in the Alpharetta Adult Activity Center where we hold our regular monthly club meetings was transformed into a festive arena with tables decorated with red and green, snowmen surrounded by fragrant fir branches (created by Jim N4SEC and Sandra), and poinsettias.



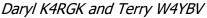
Daryl K4RGK and John N4IHV



plates and bellies with a full array of food. Attendees could choose salmon, beef roast, or turkey as their main dish with several sides to choose as well.

The delightfully light banana pudding was a hit for

dessert.



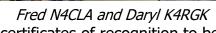
While the food and conversations were great,

a highlight of the evening was the presentation Jim N4SEC of some special awards. NFARL president Daryl K4RGK recognized Terry W4YBV and Jim N4SEC for their continuing work with the Islands on the Air program. Incoming NFARL president John N4IHV was recognized for his work as

Field Day chairman this year. Fred Moore, N4CLA, was presented with a watch for his role as Treasurer for many

years. Daryl has two other





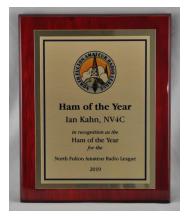
certificates of recognition to be awarded but wants to wait to present those awards when he sees them at a club meeting.



NFARL Ham of the Year Ian NV4C with Steve AB4TT

Next up was the announcement of the NFARL Ham of the Year. Daryl announced that he chose Ian NV4C for this award. Ian has been in charge of the NFARL VE program for a number of years and this year arranged for NFARL to be one of the handful of clubs nationwide to beta test ARRL's new electronic filing program for test results. Candidates who test with NFARL get their license or license

upgrades posted to the FCC within a couple of days rather than a couple of weeks with the old paper based filing program. Ian will



mark his participation in 100 VE sessions soon. Ian is also the chief videographer of the club meetings. Daryl presented Ian's award to Steve AB4TT to take home to Ian since Ian was unable to attend the dinner party. Congratulations, Ian.

Next up, Daryl presented awards to two very special members of NFARL. See the next article on those awards. After this, incoming president John N4IHV presented Daryl with an award recognizing Daryl's many contributions to NFARL over the past two years as president as well as contributions in various roles prior to that.

# Special Awards Presented at Holiday Party

The North Fulton Amateur Radio League is one of the largest general interest radio clubs in the country. Not only do we have many members, our members have a breadth and depth of knowledge, experience, and enjoyment of the wide array of topics related to Amateur Radio. Fortunately for the less experienced hams, our members generously share their talents and passions.

Tonight, we will honor Dr. John Kludt, K4SQC with a special one-of-a-kind recognition.

We all know that John is our resident expert on all things satellites, as well as all things RF! John is an ARISS technical mentor helping school students talk with astronauts about the ISS via amateur radio. Additionally, John is currently the US Technical Mentor Coordinator for the ARISS program. John is the individual that originally reached out to Mill Springs to begin the ARISS opportunity that

John K4SQC and Daryl K4RGK

resulted in Mill Springs Students speaking with an on-board ISS crew member in 2013. John commonly speaks at teacher programs advising them on ARISS and other ham radio opportunities.

John was NFARL president in 2013. He has stepped up to ensure the success of many NFARL programs and activities whenever the need is present. John has served as Field Day Chairman for several years that we earned the most points nationally in the ARRL class 3A.



John has been a key player in our HamJam program from it's infancy. He stepped up to again take the leadership role for HamJam in 2018, resulting in a very successful (possibly the best) year ever. Not only is John well known in the NFARL and metro Atlanta ham communities, he is also known on the national level and by doing so, raises national awareness of and recognition for NFARL.

I have touched on only a small sampling of what John has given to NFARL and hams in general, over the years.

Tonight I'd like to recognize Dr. John Kludt, K4SQC, with this one-of-a-kind NFARL Generations of Service Award. John, please accept this award as a reminder of how much we at NFARL recognize and appreciate all that you have done. Thank you.

# Special Awards (continued)

We will now honor Wes Lamboley, W3WL, with a, different, special one-of-a-kind recognition.

Officially, years ago, Wes served as president of NFARL. Unofficially, Wes is always there supporting and getting things done for NFARL, for students of all ages, and for the ARRL.

Wes is an expert on antennas but there is so much more. Wes has been involved in some precarious DXpeditions to remote rocks in the sub-Pacific Southern Ocean, to the sub-Atlantic Southern Ocean, and to cold rocky precipices in the high altitudes in Asia. Was he really sea sick in that video or was he simply acting?



Probably. Was he just imagining there was a leopard seal hungrily eyeing him as he pitched himself into the wildly rocking zodiac as he was leaving that ice covered spit of land? Probably not.

Wes is a great judge of character. This might explain his interest in Ernest Shackleton. On one of his southern hemisphere DXpeditions, Wes spent some time at Shackleton's grave and museum. Wes might be one of the few people who approach the quality of character and commitment to getting the job done as Shackleton. (And Wes, that is meant as a sincere compliment.)



Wes W3WL

Wes is heavily involved in the Dave Kalter Youth Dxpedition Adventure, raising funds for it and finding the right 'youth' for the program. Among Wes' passions is working with students. He was the inaugural presenter at the new NFARL Jr meeting, letting students play with and get experience with his Tesla coil. He has worked with students at Mill Springs for several years. He has attended teacher conferences to show his appreciation for their efforts and share some of his interests.

This past summer, when the ARRL reached out to our Section Manager, David Benoist, to put together a team to represent Amateur Radio at the IEEE Conference, Wes stepped up and took charge. He organized an outstanding booth that attracted visitors all day, every day of that conference.

Just last month, NFARL hosted another excellent HamJam. Wes stood up and took charge, he contacted potential speakers and he arranged for companies to donate great prizes. He managed to sell our promotional NFARL pens for \$20 each while throwing in a sheet of HamJam raffle tickets. (He did this with a straight face.)

Who doesn't know Wes? Who in the ham community does Wes not know? Wes is on a first name basis with many of the vendors who support HamJam. When they see him coming, they get ready for one or more of his infamous jokes.

Wes is a standup guy. This short list is but the tip of the iceberg of Wes' contributions to NFARL and to the Amateur Radio community. Wes, I stand here recognizing and coinfagulating you as a lifetime ambassador for NFARL and for Amateur Radio. We are fortunate and blessed to work with you. Wes, please accept this NFARL Century of Service award recognizing your lifetime of service to NFARL and to the ham community. Thank you.

### A Note from your 2019 NFARL President / Daryl Young, K4RGK

It has been an honor and a privilege to serve NFARL as president for the past two years. Both years have been successful for NFARL.

In 2018 we continued our status as a premier club in the Metro area. We placed first in the ARRL Field Day class 3A "non-competition" and we had a record HamJam year with over \$10k in ticket sales. Along the way we had challenges too. For example, we lost our mountain top repeater site we had enjoyed for over 25 years. Of course we rose to this challenge and found a new, suitable, repeater site and had the repeaters back on the air before the end of the calendar year 2018.

2019 brought a few new activities such as the Satellites in the Park event. We had a fantastic showing at Field Day 2019 in spite of difficult band conditions and we had a great time. We also learned many lessons to carry forward to our future "best ever" Field Day events. Our 2019 HamJam event was a wonderful success and we are very proud to continue the HamJam program benefiting youth education.

Many thanks to all that have helped NFARL continue our tradition of excellence and further cement our respected status in the amateur radio community.

One of our ongoing challenges is to find and deploy new volunteers and participants at all NFARL activities, events and meetings. There are many tasks that are typically performed by a few individuals in NFARL. These individuals of course do an awesome job. Moving forward NFARL is positioned to grow and improve if ALL of its members contribute just a little to the club throughout the year. When we realize this goal we will all get more from NFARL in return.

I would like to thank the 2018 and 2019 NFARL Board members for their volunteerism and their support. Your contributions are most appreciated! Thank you!

Please welcome our new Board of Directors for 2020. They are John N4IHV, Jim W4IU, Martha W4MSA, John N4TOL, Wes W3WL, and Mike KN4OAK. Each of these new Board members is uniquely qualified to bring a blend of business experience, ham radio experience and new insight to the NFARL Board. Please join me in supporting them. Another great year is ahead for NFARL in 2020!

As always thank you for your support. Please keep up the good work and continue having fun in Amateur Radio!

-Daryl K4RGK



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# A Note from your 2020 NFARL President / John Norris, N4IHV

I am honored to have been given the opportunity to serve as president of NFARL for the 2020 term. There are several folks I need to recognize and thank as they have given much time and energy over many years to make the club the success it is today.

THANK YOU to Daryl Young, K4RGK, for serving as president for the last two years. Because of his dedication and involvement in so many activities, NFARL continues to be an active and thriving club.

Bill Cobb, K4YJJ, has spent endless hours perfecting our web page and has succeeded in making it one of the best, and for that, we say a big THANK YOU.

Fred Moore, N4CLA, has served as our treasurer for so many years, that we have taken his dedication for granted, but today we want to say THANK YOU for a job well done and all you have done for NFARL. Fred has passed the baton to John Tramontanis.

As president, my goal is to carry on the NFARL success, while tackling what I believe are some of the challenges we face as a club going forward.

The items are simple, but can make the difference in whether we grow our membership and are able to continue to bring in experts in the ham radio field to elevate interest in the club.

- 1. The more club members that participate in activities and attend club meetings, the more successful we can be in achieving our goals. We are surrounded by many extremely talented members. We strive to have guest speakers who are very knowledgeable and present interesting topics. If you have a topic you would like discussed in a meeting, let me know. Or if you have a topic YOU would like to present, that would be welcomed as well!
- 2. Don't sit on the sidelines and not participate in an activity because you think your skill level is not up to those of other members. We can ALL learn from each other and elevate the fun and success of any activity. There is a statistic that approximately 5% of members in an organization do the majority of the work. Let's prove that wrong at NFARL.

I am open to suggestions about how to improve the NFARL experience. Together let's make 2020 an exciting adventure in Ham Radio!



Sincerely,
John Norris
N4IHV



### NFARL Upcoming Events and Dates

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- **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 <u>NFARES.org</u> 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 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 Location: Slope's BBQ, 34 East Crossville Road, Roswell, GA 30075 Meet with your fellow club members every Wednesday!
- 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.
- Every Saturday Royal Order of the Olde Geezers Breakfast 9 AM Location: Reveille Café, 2960 Shallowford Road, Marietta, GA 30066 You don't need to be old or a geezer to join this breakfast get-together, everyone is welcome!
- Second Tuesday NFARES Meeting January 14, 2019, 7:00 PM 9:00 PM Location: Fellowship Bible Church, 480 W. Crossville Road, Roswell, GA 30075 Check NFARES.org for more information.
- Second Saturday VE Testing January 11, 2019, 10:00 AM
   Location: Alpharetta Adult Activity Center at North Park
   13450 Cogburn Road, Alpharetta, GA 30004 NFARL provides amateur (ham) radio test sessions! All exam modules are offered at all sessions. Walk-ins are welcome, no appointment is necessary. For more information please see our website.
- Third Tuesday NFARL Club Meeting January 21, 2020, 7:30 PM NFARL Jr. Youth Meeting from 7-7:30 PM Social gathering 7-7:30 PM

Location: Alpharetta Adult Activity Center at North Park 13450 Cogburn Road, Alpharetta, GA 30004

- Fourth Tuesday NFARL Executive Team Meeting January 28, 2020, 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 <a href="President">President</a> to ensure available space.
- Saturday January 18, 2020 from 9 AM—2 PM <u>Techfest</u> at Gwinnett Medical Resource Center
- January 25-26, 2020—Winter Field Day!
- June 27-28, 2020 Field Day!

### Contact Us

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# North Fulton Amateur Radio League

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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

<sup>\*</sup> Currently off the air

Club Callsigns: NF4GA and K4JJ

Extra Extra answer: A (question E9G01)

# Supporters and Affiliates

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