



# *North Fulton Amateur Radio League NFARL eNEWS*

*May 2024*

*Over 43 Years Promoting  
Service | Friendship | Education | Fun*



## ***May 2024 Club Meeting / Mike Riley, KN4OAK***

### ***ARRL Field Day 2024***

The ARRL has published a single page flier "What is Field Day?" You can download it [here](#) if you'd like to review it.



The first point the flier make is this: "ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, thousands of radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations." It sounds so simple, you almost get lulled into a state of relaxation. Well, not really.

ARRL Field Day is one of North Fulton Amateur Radio League's biggest annual undertaking. It involves the largest planning and mobilization effort. It has generated lots of enthusiasm and frustration, along with satisfaction, enjoyment, disappointment, pride in performance, and a long list of other emotions. Rather than focus on the emotional aspects, we'd like to target the opportunities associated with Field Day that benefit the Club while we provide the ability to have fun and participate in a contest like exercise.

Join us on May 21, 2024 at our monthly club meeting where we're going to discuss not only the radio operations related plans, but also the other event ideas being considered to help us engage existing and potential new members. Your participation in this discussion will play an important part in what we do for ARRL Field Day 2024.

Join us on May 21, 2024 for our monthly NFARL Club meeting. We'll be gathering at our regular meeting location; Preston Ridge Community Center, 3655 Preston Ridge Road Suite 100, Alpharetta, GA 30005. The facility's doors will open at 7:00PM. Our meeting will begin at 7:30PM and should conclude by 9:00PM.

The May meeting will be broadcast on Zoom using this invitation link:

<https://us06web.zoom.us/j/86255827457?pwd=a1FHR3F1bDBqMUVuY3pIMDdFa2VMQT09>

Meeting ID: 862 5582 7457

Passcode: 584698

**Join us in person at Preston Ridge Community Center!**

### ***Here we go- Thirty Two days until Field Day 2024***

The last weeks of May brings lots of events with them. In the Atlanta area, it heralds the last days of the school year. It precedes Memorial Day weekend. It marks the end of the first half of the year. This time period can make you feel nervous, happy, excited or uneasy about how the remainder of the calendar may go.

I'm looking forward to the next six weeks. ARRL Field Day will be upon us on June 22, 2024. We've got an opportunity this year to make our Field Day event into a memorable one. We can choose to focus on a an operational plan that allows for both a fun and competitive approach to how we operate the event. We'll explain how that framework looks at the Club meeting on Tuesday, May 21.

We've done some of the background prep work leading up to Field Day. We've reserved the Groveway Park site with the City of Roswell. Thanks to Lee Johnson's initiative we've petitioned Governor Kemp and received his proclamation that the period of June 16-23, 2024 as *Amateur Radio Week* in the State of Georgia. We've got operating team leaders identified for the GOTA, Phone and CW stations. We've got agreement with the North Fulton ARES team on operating plans. We've got the satellite station commitment. The tents, tables and chairs are rented. We've got commitment on generator transport. Our equipment trailer has been washed. There remains a number of things around operations that require input and decision making over the next couple of weeks. However, by all accounts so far, we are on track to be ready.

While it is somewhat comforting to know what we have been able to accomplish regarding Field Day preparation, we still have other activities and plans to attend to. For example, the Atlanta Hamfest is on track for June 1<sup>st</sup>, 2024 at Jim R. Miller Park in Marietta. We're planning to have several tables fro SK Estate & equipment sales as well as a CPO Kit Assembly building event. We need volunteers for the kit building, so please contact Lee Johnson, N4WYE if you're able and willing to help.

The Cottage School will be receiving an ARISS contact in early Fall. The Computer Museum of America is working with them to arrange the event location. We'll have an opportunity to assist with the contact event and with any educational activities leading to the event. This is another club membership engagement opportunity we hope you can participate in. Please let us know how you may be willing to join in these and other planned club activities.

73,

Mike KN4OAK

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## ***Six at Slope's Successful Super!/ Wes Lamboley, W3WL***

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Slope's Barbecue saw six successes on Saturday in that three steamrolled through their Tech license and three stalwarts upgraded to Extra or General. Congratulations to all!!

1. Tyler Kesterson-KQ4RKU-upgraded to General. He has already drunk the Cool-Aid and is a member of NFARL.
2. Orlando Esquinaldo-KD4HOU-upgraded to Extra. He has an interesting background and for a good read check him out on QRZ.com.
3. Tony Sciacca got his Tech. Tony is buddies with NFARL member John Luchetti-KQ4OSG and John encouraged Tony to get involved with ham radio. Tony likes "Dad jokes", so I will have some fresh meat to annoy!!
4. Ryan Miller got his Tech. Ryan is an EE and his email is elektronixnut@gmail.com. He wore his BA (barium) CO (cobalt) N (Nitrogen) tee shirt to the test session - all decked out to look like element symbols but really spells out BACON. Ryan is my kind of guy!
5. Dan Hale-K4YDL-got his Extra. Dan is also a valued member of NFARL; congrats Dan!
6. Michael Hall got his Tech. I wrote some stuff about Michael on how he got interested in ham radio, but I cannot read my own writing, so when you see Michael ask him what the spark was to get involved. I know I will and will report next time.

Our Thank again, to the VE Team and to the North Fulton ARES Team for providing their support to the testing and licensing program. Once again their expertise is recognized and appreciated!

Please welcome these new and upgraded hams to NFARL when you you meet them next!

73,  
Wes W3WL

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## ***SANDY SPRINGS LANTERN PARADE - TAKE IT TO THE RIVER/*** ***Robert Achtenberg, AJ4RJ***

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On Saturday, April 13, 2024 The North Fulton ARES team set out to help the Sandy Springs Fire and Police Departments in guiding attendees along the parade route. We accomplished this with communication and lighting along the Parade Route.

The Sandy Spring Lantern Parade occurs annually each Spring, usually on a Saturday evening. Once it is dusk the parade will assemble with its variety of hand made custom Lanterns that light up parade route. The Lantern designs range from Flying Pink Pigs, Storks and other exotic animals to simple Chinese lanterns. Hundreds of parade participants take their lanterns and hold them high as they march down a 1.1 mile parade route to the Morgan Falls Overlook Park.

The route is a dark winding road leading from the upper parking areas down into the riverside park. Once the parade enters the park, participants float the lanterns on the water using kayaks to guide them around.

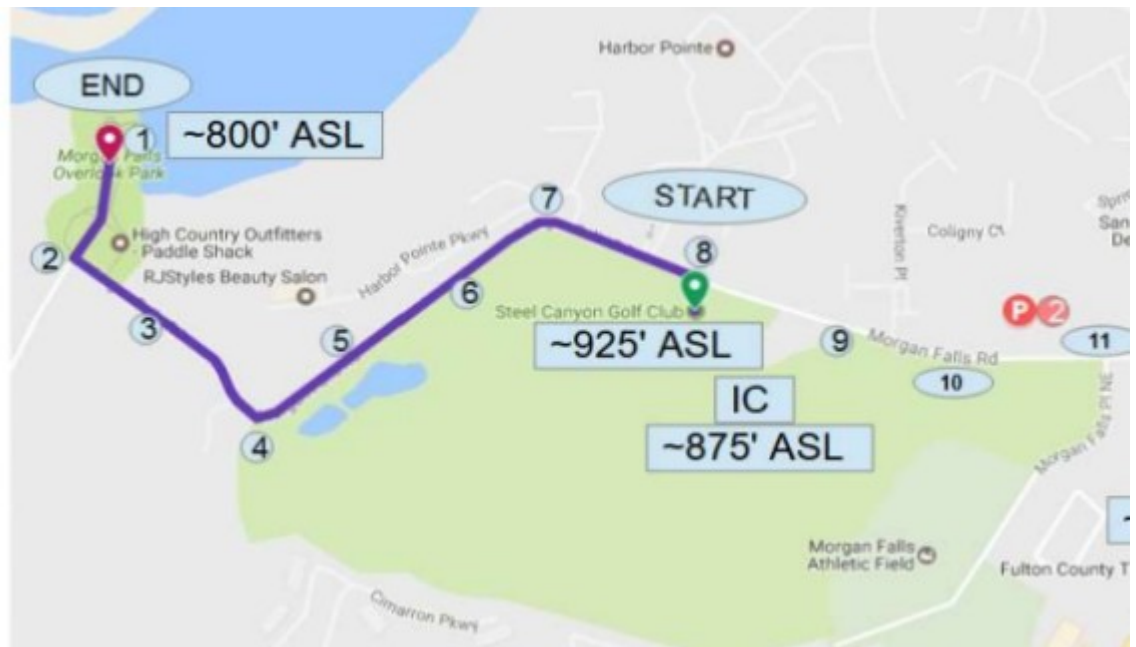
The park has many activities for kids to interact with, dancing and a live band until 10:00pm. After the festivities end, many will take bus transportation back to the parking lots, or choose to walk back. This is where the NF ARES team helps the parade attendees and participants get back to the starting point and beyond.

This year 2 incidents were logged, one was a severe reaction to a bug bite and the other was a sterilization of a dropped phone in a porta potty. The phone owner performed the rescue operation, and the Sandy Spring Volunteer Fire Brigade performed the sterilization procedure. (If it were me- leave it and time for a new phone). Overall, it was a successful event and the NFARES team was appreciated by the parade participants and Sandy Spring FD and PD.

Once again thanks to the NFARES team for volunteering their time in this event. We hope to see you there next year!

73,  
Robert, AJ4RJ

Lantern Parade  
route



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***SANDY SPRINGS LANTERN PARADE - / continued from previous page***

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Left to Right: Elizabeth, Bill – N4BTB, Tammy - KK4USM, Mark – KN4OYN, Abby KQ4JEU, Jim – W4IU and Dale - KO4STE

Right: Dale – KO4STE and Tammy – KK4USM



## ***NFARL U.S. Islands 1DG Picnic Recap / Lee Johnson, N4WYE***

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Despite the less than desirable space weather conditions, the terrestrial conditions proved to be just about perfect! A little on the cool side in the morning, by midday it was very pleasant with a light breeze. Too bad the RF conditions weren't as favorable. It was rumored that only a half dozen or so phone contacts were made along with somewhere south of a dozen digital contacts.

Regardless of the lack of RF activity, there were rigs to examine and attempt to operate, along with discussions about setups, operating and such. We enjoyed the company of a few new faces and heard some interesting information.

There were plenty of food and refreshment options available as well. Thanks again to Edith, KN4NDV for her Head Chef operating skills! Thanks also to everyone else who contributed to the menu! No "butts" about it, the versions of 'Que from Steve KO4VW and Warren KD4Z proved delicious! To top it all off-- Tony, WA3TRA provided a very tasty carrot cake (again!) adding to the rumor that it may become a tradition...

Finally, thanks to Terry W4YBV, for the great photographs. You can find a sample of them below. They will all be posted to the website shortly. See you again next year!



Left: Robert AJ4RJ & Ted K4MPM attempting to raise contacts



Right: Robert AJ4RJ, Steve KO4VW and Lee N4WYE

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Right: Edith, KN4NDV



Above: Steve KO4VW, taking aim

Lower right: Lee N4WYE playing with fire...



**Around the Shack**  
**May, 2024**

**de N4GG**

### **PL-259s Redux** **Doing it right – Max-Gain Systems**

This is the 72nd Around the Shack column. The first column appeared in December, 2017. A few of the columns stand out. The February, 2019 column titled "Mystery UHF Connectors" is one of those – it has received more interest than any other. That's understandable – every ham handles PL-259s.

Around the Shack is currently carried in three newsletters. The first 36 columns – significantly rewritten - also appear in a book: Ham Radio Tips and Tales. Over time, the feedback I've received indicates a wider readership than I would have expected. In addition to comments received directly, parts of the mystery UHF connector column were picked up by the ARRL and incorporated into the ARRL Handbook and the ARRL Antenna Book.

In 2019 my recommendation for UHF connectors was simple: "Amphenol or not at all." That's an old-timer's saying; I first heard it during my novice days in the 1960s. The column did, however, mention two excellent alternatives to Amphenol. Those are Max-Gain Systems (MGS) of Marietta, GA and The RF Connection in Gaithersburg, MD.

Both Amphenol alternatives are family-owned businesses where the owners have decided to offer high-quality products at a fair price. Both companies sell connectors manufactured for them to their own specifications.

By intent, MGS took the ultimate step – they designed their UHF connectors to be as good as they possibly could be. Cost was secondary - quality and performance came first. In my humble opinion, the MGS PL-259 is the best available today and, somehow, it's sold for \$2.25 in quantities of one. Well done MGS.

Where can you get an MGS PL-259 or other UHF connector? MGS attends the larger hamfests and has an extensive website: <https://mgs4u.com/>

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What makes MGS PL-259s so special? Here are the design requirements MGS used:

- The part must be as good as it can possibly be.
- The part has to be fully specified, no "mystery" is allowed.
- The mechanical dimensions have to be true to the definitions covering UHF connectors and the tolerances have to be tight. Some customers use these connectors in a production environment – the product has to be consistent from buy to buy, batch to batch and year to year.
- The part has to be easily soldered without the use of flux.
- The center insulator and center pin have to withstand abuse, including blowtorch temperatures during assembly. The insulator can't allow the center pin to migrate under any circumstances.
- The center pin ID has to accept the center conductor of LMR-400 and 3/8" Heliax.
- The part has to have a breakdown voltage as least as good as the best connector in the market.
- Design criteria for the mating SO-239 must match those of the PL-259. The flange has to be "16V." See Figure 1. Cheap SO-239s are usually "4V."
- The part has to be affordable – but that's last on the list after everything else is accomplished.

**Max-Gain Systems SO-239**

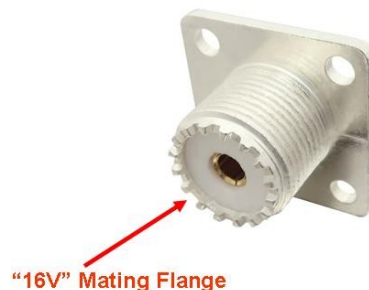


Figure 1. An MGS SO-239 with 16 cuts. Inferior connectors have 4 cuts.

A connector is no better than the company that makes, sells and supports it. Here are MGS's support practices:

- All UHF connectors are fully supported. You can call MGS (on the telephone!) and someone will answer. That person can discuss the parts in detail, spec by spec.
- The parts are available. Sufficient inventory is kept to fill large orders.
- Incoming parts are inspected and incoming lots are rejected if need be. This doesn't happen with \$1 "mystery connectors." \$1 connectors can't be inspected – there are no specifications to inspect them to.
- Full documentation is available to customers on the internet, including engineering drawings and installation guides.

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How well does MGS meet their goals, both for the part and for themselves as a company?

- All connectors are silver plated with jewelry-quality silver. This insures solderability without the use of flux. All the components are plated, for example the nut, the body and the pin of a PL-259. No gold is used. Gold has less conductivity than silver – it is strictly a marketing gimmick.
- The outside nut, body and center pin are made of solid brass.
- The center insulator is made from PTFE (the generic name for Teflon). The center pin is molded in, not inserted then swaged. The insulator and pin can take blow-torch temperatures and when red-hot, the pin can be hit with a hammer and not move. Doubt that? MGS has documented it in a YouTube video called “PL-259 Prototype Testing”, <https://www.youtube.com/watch?v=6Nz2qRrQdUA>. MGS PL-259s are so rugged they can be reused by heating the entire connector (most likely with a torch) and slamming it against a block of wood. The solder will fly out – the connector is ready to use again.
- The “back thread” (where UG inserts screw in) is cut properly. This is often not the case with \$1 connectors.
- In HiPot testing, the measured breakdown voltage is 700 volts higher than that of an Amphenol PL-259!
- The connector center pin accepts LMR-400 and 3/8” Helix – every time. Everything is the same – every time.
- The part’s design is specified and the specs are published. You can go to the MGS web site and pull up the blueprints for their PL-259. The dimensions, plating, etc. are publicly available. \$1 “mystery connectors” never come with specifications. How will tomorrow’s “mystery PL-259” compare to today’s? No one knows, including the sellers.
- The parts are made offshore but not in China. Quality comes ahead of cost. MGS began selling self-designed PL-259s in 1989. From the beginning, incoming parts have been inspected and vendors changed when necessary to maintain product quality. MGS suppliers meet environmental standards – something not easily (and rarely) done when dealing offshore.

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I'll close with this question: How does a product of this quality and with this level of support wind up costing \$2.25 in quantities of one? The answer lies in quantity. MGS buys 170,000 to 200,000 PL-259s at a time! If you think that's an impossibly large quantity for the ham market you are right, and yet, that's only a one year's supply for MGS. MGS's customers include resellers and commercial companies. Orders can be for as many as 5,000 at a time. Customers include companies like GM and national laboratories including Oak Ridge.



Figure 2. An MGS PL-259.



Figure 3. PL-259s for sale at the Orlando Hamcation.

Figure 2 is a picture of an MGS PL-259. Figure 3 shows the “sales channel” at the Orlando Hamcation. The photos make the part look mundane – it's not, it's high-tech!

For more information see:

<https://mgs4u.com/product/pl-259-uhf-male-solder-connector-for-0-405-inch-od-coax-7500-uhf/#torture>

73,  
Hal N4GG

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## ***Trailer Wash / Dave Bisciotti, KO4USA***

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Nobody likes a "dirty trailer". So, we decided that the NFARL equipment trailer needed a thorough external washing before we brought it to Field Day. This wasn't going to be something quickly remedied by dragging it to the car wash. It is a little too big. I offered to the club use of the street space in front of my house to hold the washing event. Mike KN4OAK moved the trailer from its storage location to my house on Sunday afternoon. Lee N4WYE, Mike and I used two pressure washers and lots of elbow grease and industrial soap concentrate to scrub the trailer as clean as we could. Three hours later, we think the results proved to be better than expected. Here are some 'end of the job' photos.

Dave KO4USA on left,  
Mike KN4OAK at right



Mike KN4OAK on left,  
Lee N4WYE at right

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

### **E4C04**

#### **What is the noise figure of a receiver?**

- A. The ratio of atmospheric noise to phase noise
- B. The ratio of the noise bandwidth in hertz to the theoretical bandwidth of a resistive network
- C. The ratio of thermal noise to atmospheric noise
- D. The ratio in dB of the noise generated by the receiver to the theoretical minimum noise



*See answer on the last page!*

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the National Conference of Volunteer Coordinators (NCVEC) [website](#). Note the new Technician class license examination question pool is effective July 1, 2022.

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

## Contest Corner

*These are some contests and events besides the "routine K1USN, CWops, and other organizational events" scheduled to occur the near future . Hover over the + sign & click*

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Contest Name	Time & Date
+ CQ WW WPX Contest, CW	0000Z, May 25 to 2359Z, May 26
+ QRP ARCI Hootowl Sprint	0000Z-0100Z, May 27
+ QCX Challenge	1300Z-1400Z, May 27
+ QCX Challenge	1900Z-2000Z, May 27
+ QCX Challenge	0300Z-0400Z, May 28
+ Kentucky QSO Party	1300Z, June 1 to 0100Z, Jun 2
+ IARU Region 1 Field Day, CW	1500Z, Jun 1 to 1459Z, Jun 2
+ ARRL Inter. Digital Contest	1800Z, Jun 1 to 2400Z, Jun 2
ARRL June VHF Contest	1800Z, Jun 8 to 0259Z, Jun 10
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Jun 10
West Virginia QSO Party	1600Z, Jun 15 to 0400Z, Jun 16
+ ARRL Kids Day	1800Z-2359Z, Jun 15
+ ARRL Field Day	1800Z, Jun 22 to 2100Z, Jun 23
+ QCX Challenge	1300Z-1400Z, Jun 24
+ QCX Challenge	1900Z-2000Z, Jun 24

## **NFARL Upcoming Events and Dates**

**Every Sunday — NFARES net** - 8:30 PM - 147.06 MHz (+) PL 100

All licensed hams are welcome, you do not need to be an ARES member!  
Check NFARES.org for more information.

**Every Monday — Tech Talk** - 8:30 PM - 145.47 MHz (-) PL 100

NFARL's flagship technical based "non check-in" net. The net is always better when using the web based chat room (Discord) but Internet is not required to join the net.

Check NFARL Nets for more information and "how to". Here's the link to the NFARL server on Discord web app <https://discord.gg/spr2a9D>

**Every Wednesday — Hungry Hams Lunch Bunch** - 11:15 AM

Location: Slope's BBQ, 34 East Crossville Road, Roswell, GA 30075  
(770) 518-7000

Dining Room is OPEN. Get Take Out if you can't stay!



**SLOPE'S BBQ**

**Every Wednesday — CW CHAT** – 8:00 PM on ZOOM.

New meeting link and credentials:

<https://us06web.zoom.us/j/84722087419?wd=VIN2d0xvQVhKcDIUL0R4N1hQMTQ2UT09>

Meeting ID: 847 2208 7419; Passcode: CW-CHAT

**Every Thursday — YL Net** – 8:00 PM - 9:30 PM - 145.47 MHz (-) PL 100

Check NFARL Nets website for "how to." This is a great opportunity for YL's to get on the radio with other YL's! OM's (guys) are welcome to listen in to this YL net.

**Every Thursday-- FUN NET (DIGITAL) THURSDAYS** Check-ins start @ 8:00pm to the repeater or Echolink. 147.060 (+) PL 100 Hz 443.150 (+) PL 100Hz (Alternate repeater) EchoLink N4SBD-R, Node: 522043

**Second Tuesday — NFARES Meeting** – June 14, 2024 Now meeting in-person! Meeting location: The Church of Jesus Christ of Latter-day Saints, 500 Norcross St. Roswell, GA 30075. Enter using the "Family History Center" Door. See NFARL website for details & Zoom link. NFARES members receive Zoom invitation automatically.

**Second Saturday – VE Testing - NFARL** June 8, 2024 session: 8:30 - 10:30AM Slope's BBQ, 34 Crossville Road, Roswell, GA 30075. Seating will be limited to 20 - preregistration is required. *Registration is by email to Ian NV4C*; monitor registration opening & closing on the website. [Click here for more information.](#)

**Fourth Tuesday – NFARL Executive Team Meeting** – May 28, 2024, 7:00 PM Online meeting only — monitor website and NFARL Groups.io reflector for updates.

**NFARL Club Meeting**— Tuesday, May 21, 2024 — 7:00 PM Preston Ridge Community Center, 3655 Preston Ridge Road Suite 100, Alpharetta, GA 30005. The facility's doors will open at 7:00PM. Our meeting will begin at 7:30PM and should conclude by 9:00PM.

**Atlanta Hamfestival** -- Saturday, June 1, 2024 8:00 am-3:00pm Jim R. Miller Park, Marietta, GA. Go to <https://www.atlantaradioclub.org/atlanta-hamfestival.html> for more info

## Contact Us

President	Mike Riley KN4OAK	<a href="mailto:president@nfarl.org">president@nfarl.org</a>
Vice President	Steve Randall KO4VW	<a href="mailto:vicepresident@nfarl.org">vicepresident@nfarl.org</a>
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Activities Chair	Lee Johnson N4WYE	<a href="mailto:activities@nfarl.org">activities@nfarl.org</a>
Membership Chair	Wes Lamboley W3WL	<a href="mailto:membership@nfarl.org">membership@nfarl.org</a>
Past President	John Norris AA4AN	<a href="mailto:pastpresident@nfarl.org">pastpresident@nfarl.org</a>
Mentors / Elmers	John Hathcock WE4AUB	<a href="mailto:elmers@nfarl.org">elmers@nfarl.org</a>
2024 Field Day Chair	Mike Riley KN4OAK	<a href="mailto:fieldday@nfarl.org">fieldday@nfarl.org</a>
Scout Coordinator	Ian Kahn NV4C	<a href="mailto:nv4c.ian@gmail.com">nv4c.ian@gmail.com</a>
ARES Liaison and Community Relations	Jim Paine N4SEC	<a href="mailto:n4sec@nfarl.org">n4sec@nfarl.org</a>
Repeater Operations	Mike Roden K5JR	<a href="mailto:repeaters@nfarl.org">repeaters@nfarl.org</a>
Web Master Chair	Bill Cobb K4YJJ	<a href="mailto:webmaster@nfarl.org">webmaster@nfarl.org</a>
Web Master	Tony Santoro WA3TRA	<a href="mailto:webmaster@nfarl.org">webmaster@nfarl.org</a>
VE Team Lead	Ian Kahn NV4C	<a href="mailto:nv4c.ian@gmail.com">nv4c.ian@gmail.com</a>
eNews Team	Help Wanted!!	<a href="mailto:enews@nfarl.org">enews@nfarl.org</a>

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## ***North Fulton Amateur Radio League***

P.O. Box 1741  
Roswell, GA 30077

[nfarl.org](http://nfarl.org)

eNEWS can be located online at: <https://nfarl.org/enews-index>



# Club Repeaters

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

\* Currently off the air

**Club Call signs: NF4GA and K4JJ**

**Extra Extra answer: D (question E4C04)**

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