Waves of Energy Observed at Radio Event

Saturday, May 13, 2023, turned out with a foggy start. However, the finish was fantastic. Partly cloudy sky, pleasant 73°F, slight breeze, and a feeling of complacency that made up for the lack of US Island or FBI QSO’s. Not to mention that the food served was tastefully more than adequate to suppress any desire to eat another meal that evening. All in all a very good picnic event. So, for those who were unable to attend, you’re probably wondering what factors came into play to make the venture a success? Let’s try to help you form a deeper understanding by providing a few observations.

The weather; as stated, started foggy but improved to pleasantly acceptable. Some attendees recalled the 2022 event as being too warm, but May 13, 2023 as being just about right.

Band conditions; 40 Meters started out okay, but grew noisy as the day progressed. There wasn’t much activity other than a few standing nets and idle chatter QSOs by mid-day. 20 Meters tended to evolve along the same lines as the morning turned into afternoon. There were unqualified reports that on 17 Meters FT8 resulted in a contact from China, though. Thank you Ted K4MPM, Dave KO4USA, Steve KO4VW, Robert AJ4RJ, and Clyde AK4TL, for the use of radios, antenna and other gear!

Food; here we go- there was a fine selection of picnic event cuisine available. Several styles of tasty ‘que, some great Brunswick stew, finely prepared burgers and dogs, salads, and of course some very satisfying desserts. There were only a few leftovers at the end of the day, so we are going to deem the menu as being on target. Our thanks to Edith KN4NDV, and Dave KO4USA, for their cooking expertise!

Camaraderie; although the RF QSO count was low, there was plenty of conversation among the attendees. Richard N1BRD gave some advice to Logan on crimping PowerPole connections. Robert AJ4RJ explained his rationale behind the fractal antenna design he had built. Mack W4AX caught up with folks he hadn’t seen in a while. Edith inquired about operating challenges she’s encountered with her recently acquire IC7800. While all of this was going on, Terry W4YBV took a lot of pictures. It seems everyone else shared some bit of knowledge, trivia or humor with someone else. A great gathering, with lots of recommendations to do it again next year.

Here are some photos for your viewing pleasure.

Editor’s Note:
Due to circumstances beyond control of those involved, our scheduled presentation for the May 2023 club meeting “The Art of QSLing” by Neil Foster N4FN, needs to be postponed. Neil will let us know when he’s able to make the presentation, which will be later this year.
NFARL /US Islands 1Day Get-away Success/ -continued from Page 1

Sign says it’s us

Clyde AK4TL, at work

Dave KO4USA, installing vertical

Mike KN4OAK, taking directions from Dave

At left- Steve KO4VW, demonstrates how to hang one end of the antenna

Followed at right, by how to hang the other end...

Ted K4MPM, using all the technology he can to get it set up right

Dave KO4USA, likes what he sees and hears

Continued on next page—
Left- John N4IHV, and Chuck AE4CW

Left- Sandra Johnson and Warren, KD4Z examine some prize 'que

Right- Lunch is served...

Right- Steve KK4USD, Tammy KK4USM, Wanda KN4OGK, and Jeff W4DD

Left- Ted K4MPM, Steve KO4VW, and Dave KO4USA, contemplate data received...

Left- Edith KN4NDV and Mike KN4OAK

Right- Logan KO4WOA, and Richard N1RBD confer over PowerPoles

Left- Dave KO4USA, Warren KD4Z, and Edith KN4NDV

You can see these and more pictures of the 2023 NFARL / US Islands 1DG Picnic at our Photo Album Gallery in the 2023 Activities Folder https://nfarl.org/PhotoAlbum/gallery/
Calendar Management Skill Practice

This is the time of year when the club calendar traditionally gets a little busy. Usually, we begin catching up on the planning for ARRL Field Day, looking for volunteers to assist the NFARES Team at the Sandy Springs Independence Day fireworks event, among others. This year is no exception. Except, we’ve got a couple new calendars items to mention.

We have an ARISS contact event on Friday, May 19, 2023 at Webb Bridge Middle School in Alpharetta. This culminates the effort from the Webb Bridge Middle School faculty to apply for, and support the programs connected to executing this ARISS contact. Special recognition for Webb Bridge Middle School Science teachers. Additionally, our NFARL members Daryl Young K4RGK, Martha Muir W4MSA, Wes Lamboley W3WL, and others all contributed to make the effort into a success.

Beginning June 5th, we’re teaching and operating a week long “Ham Camp” with the Computer Museum of America. We’re still working through the curriculum and activity plan development for this undertaking, but early task completions in the plan point to a high chance of having a great time. We anticipate that we will help several campers achieve their Technician level amateur radio operator license.

ARRL Field Day planning is moving along nicely. We’re on track for having the event preparations completed without deploying any contingency efforts to be ready. Sometime in June we expect to hear from the City of Roswell in regard to a Proclamation of Amateur Radio Week leading up to ARRL Field Day 2023.

Following the Field Day event comes the Independence Day Celebration support. Once again, NFARES will be supporting the City of Sandy Springs with their Independence Day festivities by providing communications for crowd control during the SS Fireworks display. You can contact the NFARES Team if you’re inclined to help them out. Contact Bill Largin KN4LDE, Mike Cohen AD4MC, or Jim Paine N4SEC, to do so.

Events and activities like these serve multiple purposes. However. There are some common themes that run between them. Comradery, fellowship, enjoyment and knowledge exchange are some of the key themes. Regardless, there are a few skills involved as well. To be involved in as many things our club is, also requires some calendar management skills. I’d like to take this opportunity to thank all of our club members for their calendar management capabilities, as they are key to enabling support and participation in all the preparation leading up to being able to engage in what the club does. Thank you all for your time, patience and participation!

73,
Mike Riley, KN4OAK
President, NFARL
I came across a great little project that caught my interest. It was an interface circuit/cable for programming HTs like the BaoFeng or others that use a Kenwood style programming cable. To add to the appeal, it also has other features that can enhance the ability of the HT (such as a sound card on board that allows APRS with your BaoFeng!

The project is on Git-Hub (https://github.com/skuep/AIOC) and the designer described it as;

"the AIOC is a small adapter with a USB-C connector that enumerates itself as a sound-card (e.g. for APRS purposes), a virtual tty ("COM Port") for programming and asserting the PTT (Push-To-Talk) as well as a CM108 compatible HID endpoint for CM108-style PTT (new in firmware version 1.2.0)."

The project begins with uploading the design files to a circuit card fabrication center in China...

- Go to JLCPCB.com and upload the GERBER-k1-aioc.zip package (under KiCad/k1-aioc/jlcpcb)
  - Select PCB Thickness 1.2mm (that is what I recommend with the TRS connectors I used)
  - You may want to select LeadFree HASL
  - Select Silkscreen/Soldermask color to your liking.
- Check "PCB Assembly"
  - PCBA Type "Economic"
  - Assembly Side "Top Side"
  - Tooling Holes "Added by Customer"
  - Press Confirm
  - Click "Add BOM File" and upload BOM-k1-aioc.csv
  - Click "Add CPL File" and upload CPL-k1-aioc.csv
  - Press Next
  - Look Through components, see if something is missing or problematic and press Next
  - Check everything looks roughly good (rotations are already baked-in and should be correct). Save to Cart
- This gives you 5 (or more) SMD assembled AIOC. The only thing left to do is soldering on the TRS connectors (see here). The total bill should be around 60$ US for 5 pieces plus tax and shipping from China.  

Continued on next page
This was quite a learning experience in that in under 15 minutes I uploaded, verified, and paid for FIVE circuit cards — These ended up costing about $54.00 USD for FIVE circuit cards with the components all surface mounted by the facility! The only piece left was to mount the 2.5mm and 3.5mm plugs and then program them with the firmware. Pretty easy project! The cable works perfectly with CHIRP. I haven’t attempted to implement APRS — that’s next..

I now have a couple of these. If you need a programming cable, I can guide you thru the process or pass along one of the ones I have built....

Shipping: USD $3.84
Subtotal: USD $49.57
PayPal fee: USD $0.50
Grand Total: USD $53.91

Here is a photo of the device with flexible plugs instead of hard mounted plugs on the board...

73,
Dave KO4USA
Webb Bridge Middle School Hosts an ARISS Radio Contact This Friday

On Friday, May 19, 2023, students from the Webb Bridge Middle School in Alpharetta, will speak with astronaut Woody Hoburg who is aboard the International Space Station. The North Fulton Amateur Radio League is the local radio club that is working with this school for this amazing opportunity. Daryl K4RGK is serving as the local technical mentor for this contact. Martha has been serving as the ARISS Educational Ambassador for this contact.

As part of the build up to this contact, NFARL members Mike KN4OAK, Wes W3WL, Steve KO4VW, Ted K4MPM, Dave KO4USA, and Martha went to the school to present a variety of demonstrations and activities related to ham radio and space science in March.

Shravika KQ4CUS, a senior at Alpharetta HS, and her sister Siri, an eighth grader at Webb Bridge MS, presented the idea to apply for an ARISS contact to some teachers and administrators at the school. The school agreed that this was an amazing opportunity for their students and together they submitted a contact proposal.

This ARISS Radio Contact will be livestreamed starting about 1:30-1:45 PM. The actual chat with the astronaut will begin at 2:20 PM. The students will speak with Warren “Woody” Hoburg KB3HTZ. The link for the livestream will be posted on the NFARL groups.io site when it is available.

Join in and listen to this contact if you’re available to do so! This is one of several contacts with middle schools in Georgia that will be accomplished during the next 24 months. Webb Bridge Middle School is located at 34.06806150956774, -84.23148856666798 in case you want to use the AMSAT Online Satellite Pass Predictions tool (https://www.amsat.org/track/). Open the tool in a new tab or window of your choice. Select ISS in the “Show Predictions for:” window. Select the number of passes to be used in your model output. Then just copy and paste the 34.06806... Latitude and -84.23148... Longitude values into the “Decimal Latitude” and “Decimal Longitude” windows in the tool. Then click on Predict. Let us know why you can’t see the overhead pass predictions for the school that align with the times noted above! Have fun!
In the February 2022 edition of the NFARL eNews, Scott wrote an article about the under-used 60M band (https://nfarl.org/enews/eNEWS_2022-02.pdf) so Scott was intrigued to see an item in the April 27, 2023 ARRL Letter from the American Radio Relay League with the headline:

ARRL Advocates for Radio Amateurs as FCC Proposes Changes to 60-Meter Band

On the 60M band, US Amateurs have access to five discrete channels on a secondary basis: 5.3320 MHz, 5.3480 MHz, 5.3585 MHz, 5.373 MHz, and 5.405 MHz. We are limited to 100 Watts ERP (Effective Radiated Power) on this band. My observation is that it is mostly used for FT8 (digital mode) communications. Because this band is also available in other countries on a widely varying basis, it can be used to work DX, but because it is not universally available, those contacts don’t count for DXCC. That fact notwithstanding, it is still a fun and easy to access band.

The article in the ARRL Letter states that “the FCC issued a Notice of Proposed Rulemaking (NPRM) on April 21, 2023, that deals with the band… The Federal Communications Commission (FCC) proposes to allocate 15 kHz of contiguous bandwidth between 5351.5 - 5366.5 kHz on a secondary basis with a maximum power of 15 W EIRP – Effective Isotropic Radiated Power (equivalent to 9.15 W ERP). This allocation was adopted at the 2015 World Radiocommunication Conference (WRC-15).”

The ARRL Letter article further says, “The federal government is the primary user of the 5 MHz spectrum. The government's manager of spectrum use, the National Telecommunications and Information Administration (NTIA), has expressed support for implementing the allocation as adopted at WRC-15. Doing so would result in amateurs losing access to four of the five discrete channels, and power limits would be reduced from 100 W ERP to 9.15 W ERP. However, it would provide access to a new contiguous 15 kHz band that includes one of the current five channels.”

Essentially, 8 years ago in 2015, in an effort to give every Ham on the planet access to 60 meters, a proposal was made and adopted to provide for 60M allocations to Amateur Radio operators that would be minimally invasive to existing governmental or military communications. All governmental agencies around the world charged with RF spectrum management in their country were urged to adopt this global recommendation as a starting baseline for Amateur Radio use of the 5MHz spectrum.

The United States has had a different but compatible allocation of frequencies in the band since before that proposal was made, and after the global minimal standard was adopted, the ARRL petitioned the FCC to keep our allocations the same - the five discrete channels and the 100W PEP power limit. In a 2017 petition the ARRL made several important observations:

“Such implementation will allow radio amateurs engaged in emergency and disaster relief communications, and especially those between the United States and the Caribbean basin, to more reliably, more flexibly, and more capably conduct those communications.”

“Using the five discrete channels have shown that amateurs can coexist with primary users at 5 MHz while complying with the regulations established for their use.

Neither ARRL, nor, apparently, NTIA, is aware of a single reported instance of interference to a federal user by a radio amateur operating at 5 MHz to date."

All has been well and quiet, until now, eight years after the WRTC global minimum standard for 60M was adopted, and five years after the ARRL petitioned the FCC to leave the US Amateur allocation unchanged. The FCC has issued a Notice of Proposed Rulemaking (NPRM) to reduce US Amateur access to the 5MHz band back to the “global minimum”. Continued on next page—
The ARRL Letter article notes that “the FCC recognizes that Canada has already adopted 60-meter allocations and related rules that align with those proposed by ARRL.” The article further states, “The FCC proposed to allocate the 15 kHz bandwidth, but stopped short of making a proposal on whether the existing channels should remain allocated to amateur radio and what the power limitations should be. They requested comments on their proposal and the related channel and power issues.”

My take is that the FCC has been asked to make this change in the FCC rules (reversion to the global minimum for 5MHz), but is open to consideration of modification to the proposed rules change up to and including doing nothing. They are requesting that anyone with an interest in this rule submit their comments within a 60-day window that opens after the NPRM is published in the Federal Register, which should be now.

The FCC has proposed the modification or removal of Amateur Radio bands in the past. Sadly, it has become an all too regular occurrence. Most of the actions have been focused on allocations in the Gigahertz range, microwave frequencies that few US Amateurs use or even have equipment for. The 60 meter band is different. Nearly every US Ham with a relatively new HF radio has access to the five channels in the 5MHz range. This is not an “experimental” band “way up there” in the RF spectrum that requires lots of special equipment, and while we are limited to only five specific frequencies and 100W, it would be a shame to see it relegated to a near-useless status for no identifiable good reason.

I will presume that the ARRL will be alerting all of us to send comments to the FCC regarding this reduction in privileges on the 60M band, and I would also encourage you to do the same.

73,
Scott Straw  KB4KBS

NFARL Leadership urges you to take time to understand and evaluate the impact of regulatory proposals such as this. After all, it is your opportunity to let the governing organizations know you are interested and wish to make your viewpoint known.

Field Day Sign-up Sheets are Now Open / Bill Cobb K4YJJ

The 2023ARRL/ NFARL Field Day sign up sheets have been posted to the website. They are located [here](#) on the NFARL Field Day webpage. Please review the volunteer and team position opportunities at your earliest convenience and sign up for the team and time slots of your choice.

Selecting the link you choose will bring you to a Google Form or the operating schedule Sheet located on line. When you fill out a Google Form, the information is automatically transferred to the related Team sheet (list). Remember to select and fill out a Google Form for each individual team position you wish to sign up for.

If by some chance, you sign up for a Team or Operating Schedule time slot today, and discover in the future that you need to make a change, you can do so. Just open the Operating schedule of responses file and make the change needed. Don’t forget to drop an email to the Team captain to ensure they are informed of the change.

Thanks for your consideration in this year’s Field Day event!
Digital SWR/Wattmeter Kit Construction and Calibration
Lee Johnson
N4WYE

I recently acquired an SB-200 amplifier from John Norris N4IHV, and after 65 years in ham radio, I finally have a linear amplifier for those DX pile-ups.

So now I am looking for a good wattmeter to measure the linear output power. My MFJ-267 wattmeter seemed a little generous, measuring 120 watts output on my IC-7300.

A digital SWR/Wattmeter kit seemed a good project, especially as the commercial units are in the $500 and up range. I ordered a kit Model # GM-102: Graphical HF SWR & Wattmeter offered by Don Friend at https://wa4mcmkits.com/ for $250. I am a very satisfied customer.

In this article, I would like to share the experience of building, testing, calibrating and using this digital SWR/Wattmeter.

I received the kit in three days and, after checking the parts and downloading the Assembly manual, I completed the assembly/tests in less that four hours. The parts are through hole components and plug in surface mount modules so the assembly was quite straight forward. The design, documentation and parts packaging of this kit made the assembly and testing quite simple.

The one issue for me was getting the power levels properly calibrated. I had initially calibrated the power levels against my MFJ Wattmeter. However, when using a Bird 43 Wattmeter, I found the Bird reading lower by >20%.

So how to complete the calibration and start using the SWR/Wattmeter to check out my new linear amplifier? Having access to several wattmeters, I compared them all and subsequently reset the calibration on the GM-102 kit.

Step 1
Initially calibrate the kit against my existing MFJ-267 SWR/Wattmeter which seemed too generous, showing 120 watts out with my IC-7300.

Step 2
Aimed at getting better correlation on the numbers. So I borrowed a Bird 43 wattmeter, which indicated that my IC-7300 was doing 100 watts (manufacturer’s spec) and not the 120 watts indicated on the MFJ 267.

I would have stopped here, but for the Bird showing 100 Watts with the 250 watt slug and 90 watts with the 1kw slug.

Continued on next page—
Step 3
I borrowed more Wattmeters to better understand how to proceed. The table below shows the power measurements using now five Wattmeters with the Bird being the reference.

Step 4 **Conclusion**
I decided, not having access to a secondary standard, I would have to pick the best data, make key decisions/assumptions and settle for the next best reference.
My solution was to recognize that the Bird reading at 100 watts explicitly matched the Icom 7300 out power level specification and factory settings, and calibrate from that reference point.

The data and graph shows the data after the calibration of the GM-102 Graphical HF SWR & Wattmeter comparing Heathkit, Swan, Bird, MFJ wattmeters.
NFARL Reaches All-Time High Score for the Event!!!

The 2023 Georgia QSO Party is now in the books. Although the official scores from the GQP administrators have not yet been released, the NFARL "Challenge" totals have been tallied.

Each year, the club sets the goal of having "FUN" as our key objective, and by all accounts that was easily achieved this year. NFARL stations were loud and active on the bands in the GQP!!

Another goal is to attempt to improve upon the club’s prior year score - of which 2022 was a record mark. This goal was also achieved in 2023, as the "Challenge" team exceeded the record mark from last year by 9.2%. Again, exceeding the million point threshold.

The NFARL team had an impressive count of 30 participants, and although a bit under last year's number, this core group was focused on improving versus last year's performance. And indeed they did!!

Additionally, we had a record count of rookie entries which accounted for significant contributions to the total team score - over 52,00 points.

We also had 2 entries in the "Attic Antenna" category contributing over 12,000 points!!!

**Following are some impressive notes and numbers for the team:**

This year, 30 stations participated in the "Challenge" on the air, tying for our third highest level to date. Although not our highest total of operators, scores posted indicated our operators improving on past performances, likely a result of the combination of improving operating skills and enhanced propagation.

15 - the number of total stations in the GQP earning the "Spell NFARL" certificate in 2023. Even with the increased activity and favorable propagation, this number was nearly half of our record year in 2021, and is indicative as to what a challenge it is to obtain this award.

6 - the number of stations completing a "Clean Sweep" contacting all ten NFARL 1x1 stations - including 1 DX station

4 - the number of NFARL members earning the "Spell NFARL" certificate - matching last year!!!

2 - NFARL members completing a "Clean Sweep" contacting all ten NFARL 1x1 stations - achieved by Steve Mays, KS4KJ and Neil Foster N4FN

3 - the number of "Rookie" participants in the "NFARL Challenge" - a new record !!!

392,092 - total score submitted by the N4N rover team, Mike Roden, K5JR, Max Faulkner, N5ZZ, and Ken Burks

Continued on next page-
The club would like to recognize **Daryl Young, K4RGK**, for managing the QRZ pages for the special 1x1 calls, facilitating the "Spell NFARL" award program, as well as providing QSL info for stations wishing to receive the special 1x1 QSL card.

Kudos go to **Bill Cobb, K4YJJ**, for maintaining the info on the NFARL website related to the GQP and his most timely responsiveness to our requests. Also, Bill has helped to keep the webpage updated as the GQP altered rules this year with a return to a post-Covid environment.

NFARL would also like to thank all those who participated in the Georgia QSO Party and for their efforts in enhancing the fun for all in the contest.

Also, for those who participated in the "NFARL Challenge", scores are being reviewed and compiled for certificate awards to be presented at a future meeting, or perhaps at a virtual time and place.

73 John N4TOL

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**Georgia QSO Party for 2023 / continued from page 11**

On Saturday May 20th, there will be an opportunity to get into ham radio or upgrade your existing Tech license to General. A Tech and General ham cram is being sponsored by the Gainesville Middle School ARC and the Lanierland ARC from 8:00 A.M. till 1:00 P.M. VE testing of all license classes will be held at 1:00 P.M. There is still room for more students. The ham cram is free but there will be a fee of $10.00 to take an exam. Please register for the ham cram at lanierlandarc.org.

In addition, a free swap shop will be held in the school gym from 8:30 till 1:00. Sell from your trunk or bring a table. Sign up for the swap shop at lanierlandarc.org. Lunch is available for an additional cost. A 50/50 raffle to benefit Gainesville Middle School Amateur Radio Club will also be held.

The location for all events is Gainesville Middle School, 1581 Community Way, Gainesville, GA 30501.

73.

Mike Hall, Secretary

Lanierland Amateur Radio Club

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**Gainesville Middle School & Lanierland ARC Ham Cram/ Edith Collins, N4NDV**
Extra Extra! / From the Extra Class Question Pool

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

**E8C05**
What is the approximate bandwidth of a 13-WPM International Morse Code transmission?

A. 13 Hz  
B. 26 Hz  
C. 52 Hz  
D. 104 Hz  

*See answer on the last page!*

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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.

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**We Still Have K4ICR For Sale / Don Rogers, K4UAF**

Don Rogers, K4UAF, here.

My cousin, K4ICR, has his home station antenna equipment for sale. The equipment consists of:

- 41' of Rohn 25G tower; 3ea 10' straight sections, 1ea 4' base section, 1ea 7' top section w/ mast, and misc. SS guy wire
- Mosley TA-33 Tri-Band beam
- Hi-Gain HAM-IV rotor, professionally refurbished appx 5 years ago
- 80/40m trap dipole

The above is located near Adairsville GA, appx 5 miles east of I-75. The arrangements are cash & carry for the lot; you pick up and move. He desires not to split the lot and sell piecemeal. The equipment is located outside, in back of a barn, supported on wood timbers, w/ ready access to move.

He is asking $300 for the lot, but that is negotiable.

We would appreciate it if you would put this in the club newsletter.

Thanks, Don, K4UAF red_41@bellsouth.net
Beginning with May 2023 NFARL eNEWS, we are going to run a “Letter to the Editor” column where we’re inviting readers to provide feedback on articles, comments on the presentation of articles, suggestions for improvements, comments and viewpoints on amateur radio related topics of interest, and observations on the North Fulton Amateur Radio club operations.

You are invited to submit your articles, notes, comments, etc., to enews@nfarl.org. Items submitted before the 2nd Friday of the month will be included in that month’s edition of enews. Submissions after the 2nd Friday will be included in the following month’s edition. You may get a response article from the enews editor, or you may not, depending on the content and nature of the article submitted.

This month we’re going to use a groups.io posting from Mike Cohen, AD4MC, to kick things off. We chose Mike’s post because we thought it was fitting. Has anyone really investigated the standing wave article? Feel free to provide us with your thoughts.

NFARL Team,

The article by Wes, W3WL, in the April 2023 issue of eNEWS, https://nfarl.org/enews/eNEWS_2023-04.pdf, gave me an LOL when I looked at the picture, but I must admit that I didn't take the time to read the article.

My recommendation to ALL of you is to read his article. You can then give Wes your honest opinion of what you thought of it.

73,
Mike - AD4MC

From: https://nfarl.groups.io/g/main/message/35389
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](https://nfare.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](https://nfarl.org) for more information and “how to”. Here’s the link to the NFARL server on Discord web app [https://discord.gg/spr2a9D](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!*

- **Every Thursday — YL Net** – 8:00 PM - 9:30 PM - 145.47 MHz (-) PL 100
  Check NFARL Nets [website](https://nfarl.org) 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 Wednesday — CW CHAT** – 8:00 PM on ZOOM.
  New meeting link and credentials:
  [https://us06web.zoom.us/j/84722087419?wd=VlN2d0xvQVhKcDlUL0R4N1hQMTQ2UT09](https://us06web.zoom.us/j/84722087419?wd=VlN2d0xvQVhKcDlUL0R4N1hQMTQ2UT09)
  Meeting ID: 847 2208 7419; Passcode: CW-CHAT

- **Second Tuesday — NFARES Meeting** - June 13, 2023 *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](https://nfarl.org) for details & Zoom link. NFARES members receive Zoom invitation automatically.

- **Second Saturday — VE Testing** - NFARL June 10, 2023 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](https://nfarl.org/ve-testing).

- **Fourth Tuesday — NFARL Executive Team Meeting** - May 23, 2023, 7:00 PM.
  Online meeting only — monitor website and NFARL Groups.io reflector for updates.

- **NFARL Club Meeting**— Tuesday, June 20, 2023— 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. Our meeting topic is Field Day Operations Pre-Game, led by Steve Randall KO4VV

- **2023 ARRL / NFARL Field Day**— June 24-25, 2023
  Groveway Community Park, Roswell  See our [Field Day webpage](https://nfarl.org/field-day) for details!
## Contact Us

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</tr>
<tr>
<td>Treasurer</td>
<td>John Tramontanis, N4TOL</td>
<td><a href="mailto:Treasurer@nfarl.org">Treasurer@nfarl.org</a></td>
</tr>
<tr>
<td>Activities Chair</td>
<td>Dave Bisciotti, KO4USA</td>
<td><a href="mailto:Activities@nfarl.org">Activities@nfarl.org</a></td>
</tr>
<tr>
<td>Membership Chair</td>
<td>Wes Lamboley, W3WL</td>
<td><a href="mailto:Membership@nfarl.org">Membership@nfarl.org</a></td>
</tr>
<tr>
<td>Past President</td>
<td>John Norris, N4IHV</td>
<td><a href="mailto:PastPresident@nfarl.org">PastPresident@nfarl.org</a></td>
</tr>
<tr>
<td>Mentors / Elmers</td>
<td>John Hathcock, WE4AUB</td>
<td><a href="mailto:Elmers@nfarl.org">Elmers@nfarl.org</a></td>
</tr>
<tr>
<td>2023 Field Day Chair</td>
<td>Chair- Steve Randall, KO4VW</td>
<td><a href="mailto:FieldDay@nfarl.org">FieldDay@nfarl.org</a></td>
</tr>
<tr>
<td></td>
<td>Co-Chair- Dave Bisciotti, KO4USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Co-Chair- Mike Riley, KN4OAK</td>
<td></td>
</tr>
<tr>
<td>Scout Coordinator</td>
<td>Jon Wittlin, K4WIT</td>
<td><a href="mailto:k4wit@nfarl.org">k4wit@nfarl.org</a></td>
</tr>
<tr>
<td>ARES Liaison and Community Relations</td>
<td>Jim Paine, N4SEC</td>
<td><a href="mailto:n4sec@nfarl.org">n4sec@nfarl.org</a></td>
</tr>
<tr>
<td>Repeater Operations</td>
<td>Mike Roden, K5JR</td>
<td><a href="mailto:Repeaters@nfarl.org">Repeaters@nfarl.org</a></td>
</tr>
<tr>
<td>VE Team Leader</td>
<td>Ian Kahn, NV4C</td>
<td><a href="mailto:nv4c.ian@gmail.com">nv4c.ian@gmail.com</a></td>
</tr>
<tr>
<td>Web Master</td>
<td>Bill Cobb, K4YJJ</td>
<td><a href="mailto:Webmaster@nfarl.org">Webmaster@nfarl.org</a></td>
</tr>
<tr>
<td>eNews Team</td>
<td>Help Wanted!!</td>
<td><a href="mailto:enews@nfarl.org">enews@nfarl.org</a></td>
</tr>
</tbody>
</table>

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**North Fulton Amateur Radio League**

P.O. Box 1741  
Roswell, GA 30077

nfarl.org

eNEWS can be located online at: https://nfarl.org/enews-index
Club Repeaters

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

* Currently off the air

Club Call signs: NF4GA and K4JJ

Extra Extra answer: C (question E8C05)

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