

## North Fulton Amateur Radio League NFARL eNEWS

October 2024

Over 43 Years Promoting Service | Friendship | Education | Fun

## October 2024 Club meeting

Robert Achtenberg, AJ4RJ

# Winlink and Digipeaters

Robert (AJ\$RJ) will explore the vital role of Winlink communications, particularly in light of recent events in Asheville. He will demonstrate how to create and send a Winlink email to a RMS/CMS Gateway, illustrating long-distance messaging capabilities. Additionally, he will cover Peer-to-Peer messaging and the use of Digipeaters for enhanced communication. This session promises valuable insights into effective messaging strategies during emergencies—don't miss it!

## **NFARL Officer Elections**

During October each year, North Fulton Amateur Radio League conducts elections to select the club Officers for the coming year. Elected positions include President, Vice President, Secretary, Treasurer, Activities Chairman, and Membership Chairman. A nominating committee is established annually to help select candidates for these roles. Club membership votes to elect the roles from the candidates during the October club meeting.

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

## **NFARL Club Meeting**

October 15, 7:30p to 9:00p (doors open 7:00p)

Preston Ridge Community Center Zoom link

3655 Preston Ridge Road

Suite 100 Meeting ID: 862 5582 7457

Alpharetta, GA 30005 Passcode: 584698

https://us06web.zoom.us/i/86255827457?pwd=a1FHR3F1bDBgMUVuY3pIMDdFa2VMQT09

NFARL eNews - October 2024

### Time in 2024

We are down to less than 90 calendar days remaining in 2024. Some may feel like 2025 can't get here fast enough. Others feel like 2024 is moving by too quickly. Still, others don't let the concept of time get in the way of their thoughts and emotions. I'm one that uses the concept of time to help me function in ways in which I can attempt to maintain some sort of control of my behaviors during the things I do in life.

For example, one thing I do is try to balance the amount of time I spend on activities each day. I have a pretty good understanding of time for daily rituals, chores, planned activities and the like. I try to balance the important and urgent matters against the not important but urgent matters to allow me to maximize the time spent on important but not urgent activities.

So, what type of activity do I classify Amateur Radio as? That depends. Some of the activities in my Amateur Radio universe are definitively in the important and urgent bucket. Writing this column is a good example of a deadline driven project falling into the urgent and important class. Most of the others presently fall into the important but not urgent bucket. Some of the remainder drop into the urgent but not important category and a few wind up in the not important and not urgent pile.

Here are some important but not urgent class items; learning / refining an operating skill like Morse Code, experimenting with the different operating modes on various radios, investigating alternative logging applications, planning ahead for upcoming club events, looking for operational performance improvements to save time in routine tasks, and the like. While a target date associated with a specific task in these activities may be useful, most of the time I manage time by estimating backwards from the goal to the starting point and then figure that into the time allotment remaining from the "must do" items in my "to do" list. Presently, I am placing a high priority on time spent learning Morse Code and translating that knowledge to CW operation.

Daylight Saving Time ends on November 3, 2024. In the meantime, make the most of your 2024 DST and enjoy your time on the radio!

73, Mike KN4OAK

September 14, 2024 turned out to be a successful day for four candidates taking their Amateur Radio license exams. These four passed their test and received their license upgrades!

Candidate	Call Sign	Test Passed
William Goode	KN4VQX	Amateur Extra
Michael McCarthy	KQ4EFL	Amateur Extra
Jeffrey Lentz	KQ4VKO	Technician
Patrick Umstead	KQ4VKP	Technician

Bill KN4VQX, picked up his Extra ticket! Bill has been operating mostly mobile, but now intends to get his home station up and running. Bill has also started his journey into the ARES arena.

Mike KQ4EFL, received his Extra ticket and was very happy to do so! Congratulations Mike!

Jeff Lentz KQ4VKO let his license expire given other priorities in life. Jeff's previous call was KC4DMZ, which he may try to retrieve. However, now he's back with a new call! Congratulations Jeff!

Patrick Umsted, KQ4VKP, picked up his Technician ticket. Congratulations Patrick! Patrick's brother Scott KF4EEH, convinced him to get his license. Patrick admits he agreed so he would have a better understanding of things radio that Scott was talking about.

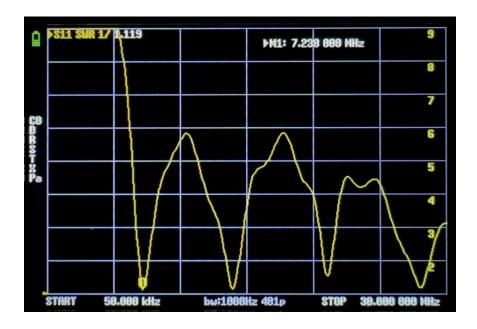
Our thanks again, to the VE Team and to the North Fulton ARES Team for providing their support to the testing and licensing program. Once again, their expertise is recognized and appreciated!

Please congratulate these hams when you meet them next!

73, Wes W3WL

Imagine using a NanoVNA to measure your antenna SWR simply by turning it on and attaching your 40 meter loop antenna as shown below.

Many of us have struggled with the learning curve of the NanoVNA software, but with the SWR setup configured in memory, you will be able to check the SWR and optimize your antennas quickly and easily.



This article is intended to help you configure your NanoVNA for instant SWR measurements. use the NanoVNA H4 model, the most popular one, so these step sequences should match.

Below is a listing of the steps necessary to set up the screen traces, requisite parameters, the calibration sequence and save instructions for measuring the antenna SWR from 50kHz to 30 MHZ.

## Traces & Parameters

- Power up the NanoVNA top right corner slide switch (with word "Display" at top)
- Tap screen (anywhere) to bring up the menu home screen
- Tap Display, Trace, select Trace 0 and turn off the remaining traces, tap Back, Back
- Set the "Stimulus" frequencies for the HF band
- Tap Stimulus, Start, enter 50 k
- Tap screen to bring up the menu
- Tap Stop, enter 30 M

## Calibration

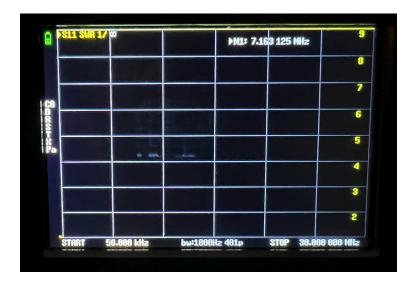
- Tap screen to access the menu home screen
  - o may have to tap **Back** to get on the home screen (with word "Display" at top)
- Tap Calibrate, Tap Reset, Tap Calibrate
- Connect the Open test termination
- Tap Open
- Remove Open, Connect the Short
- Tap Short
- Remove Short, Connect the Load
- Tap Load
- Tap Done
- Tap Save 0

Calibration is done

## SWR graph

- Tap screen to access menu home screen
  - o may have to tap **Back** to get on the home screen (with word "Display" at top)
- Then tap Display, Format, select SWR, tap Back
- Now select Scale, Scale/Div, select 1, tap ENT (in the lower right corner)
- Tap screen to bring up menu
- Select Marker, tap Select Marker, and select Marker 1, tap Back, Back to get to home screen
- Next, store the current settings in the startup memory location,
  - o may have to tap **Back** to get on the home screen (with word "Display" at top)
- Tap Calibrate, Save and then Save 0.

This is what you should see! Congratulations!



Now, to verify proper memory operation, try turning the NanoVNA power off and back on.

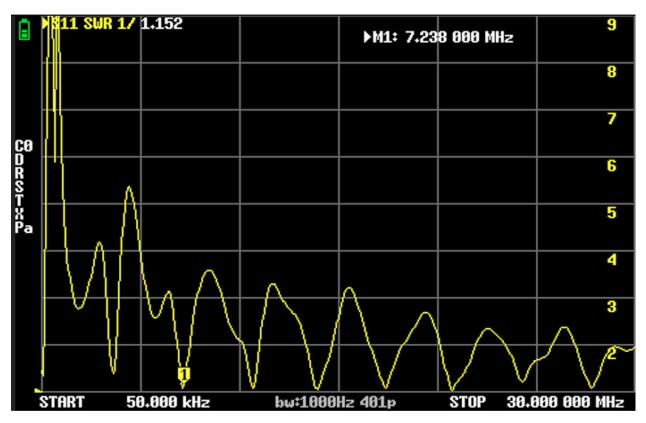
As this image appears, you have confirmed your NanoVNA is ready to measure SWR directly when you turn it on.

Now that you have your NanoVNA configured for instant use, let's see what the SWR plot can tell us about an 80 Meter Loop antenna and your antennas as well.

After reading the remainder of the article, connect your antenna, power up the NanoVNA and take a look at your favorite antenna SWR measurement.

This plot shows all the HF bands, except 160 Meters, and the minimum SWR readings for each.

The horizontal axis is frequency starting at 50KHz and stopping at 30MHz. The vertical axis is SWR with 1:1 on the bottom and going to 9:1 on the top.



Marker #1 is at 7.238 MHz with an SWR of 1.152. You can move the marker along the horizontal frequency scale and see the SWR displayed in the upper left corner with the frequency in the upper right corner.

Since this antenna is one wavelength long it yields very low SWR on each band.

This plot, with its 401 sample points, will give you an SWR reading every 75 KHz. I like to take a closer look at each band.

So for the next "Chapter" or installment, we will cover putting each band in your stored memory locations for you to recall.

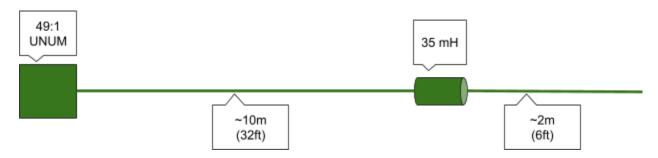
Any other NanoVNA questions that you might like to see included in the future? Contact me!

73, Lee N4WYE

With my uncooperative HOA, one of the solutions I'm exploring is installing my antennas in the attic.

Since my house isn't particularly large, I decided to try a shortened version of an End-Fed Half-Wave (EFHW) antenna for the 40-meter band.

Essentially, this is a 20-meter EFHW with an added 35 microhenry coil to extend its "length".



I had most of the materials on hand, except for the coil. To figure out how many turns I needed to make a 35 microhenry coil, I used this <u>online calculator</u>.

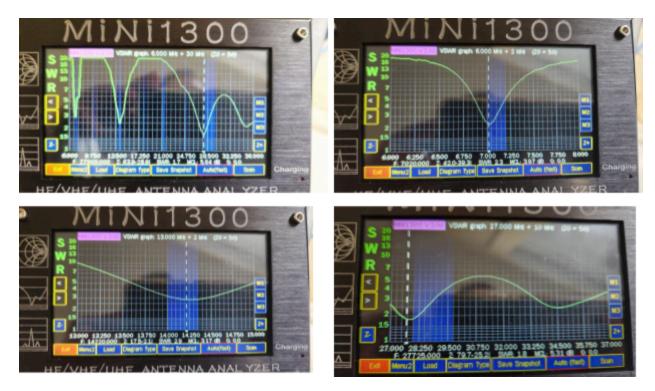
#### Here's the final result:



Installing the antenna in the attic turned out to be more challenging than I expected. There wasn't enough room to stretch the antenna from end to end, and I had to navigate several obstacles along the way.

I knew this setup would still be somewhat of a compromise, but having help from a friend like Lee made a big difference.

After the installation was complete, I tested the SWR using my Mini 1300 analyzer.



It needed a bit of trimming, but it's working well so far. To my surprise, my reverse beacon test showed it performing better than I anticipated.



Overall, despite the challenges of working within the constraints of my attic and the expected compromises of a shortened EFHW antenna, the results have exceeded my expectations.

With a bit of patience, careful adjustments, and help from a knowledgeable friend, I've managed to get the antenna performing better than anticipated.

It's a reminder that even with limitations, resourcefulness and determination can lead to successful outcomes in amateur radio. This project has been a rewarding experience, and I'm excited to see how the antenna continues to perform over time.

73, Roy KQ4OYM

I had a Toyota Camry where the dashboard plastic surface broke down over time and became very sticky. The car is gone, but I found several other plastic items around the house where the



plastic surface also changed to a sticky mess. They include two thumb drives(see the picture), a small flashlight and an umbrella handle. Researching the internet online gave me a pretty good clue to a solution. Several message boards gave a unanimous vote to using a baking soda solution.

#### Procedure:

- 1 Get a small bowl to hold the baking soda solution.
- 2 Get a small scouring pad, soft cloth or paper towel. I used a scouring pad since it takes less effort, but it will scratch the surface. If it's something of value, use a soft cloth or paper towel.
- 3 Create a small paste solution in the bowel with the baking soda and some water.
- 4 Rub the paste onto the plastic surface and watch the magic happen. It may take a bit of elbow grease to clear all the sticky stuff.
- 5 Rinse the part with water, damp cloth, etc..

Here are pictures of the before and after results.



Before Treatment



Tools of the trade



Shiny Results

73, Tony Santoro WA3TRA

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



# E1B01: Which of the following constitutes a spurious emission?

- A. An amateur station transmission made without the proper call sign identification
- B. A signal transmitted to prevent its detection by any station other than the intended recipient
- C. Any transmitted signal that unintentionally interferes with another licensed radio station and whose levels exceed 40 dB below the fundamental power level
- D. An emission outside the signal's necessary bandwidth that can be reduced or eliminated without affecting the information transmitted

See answer on the last page!

The new Amateur Extra-class license examination question pool, effective from July 1, 2024, through June 30, 2028, has been released and is available at the National Conference of Volunteer Coordinators (NCVEC) <u>website</u>.

Note the new Technician class license examination question pool is effective July 1, 2022.

lan 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 scheduled to occur in the near future.

Contest	Time & Date
OK1WC Memorial	1630Z-1729Z, Oct 7
RSGB 80m Autumn Series, CW	1900Z-2030Z, Oct 7
A1Club AWT	1200Z-1300Z, Oct 9
QRP ARCI Fall QSO Party	0000Z-2359Z, Oct 12
Nevada QSO Party	0300Z, Oct 12 to 2100Z, Oct 13
Arizona QSO Party	1500Z, Oct 12 to 0500Z, Oct 13
Pennsylvania QSO Party	1600Z, Oct 12 to 0400Z, Oct 13 and 1300Z-2200Z, Oct 13
South Dakota QSO Party	1800Z, Oct 12 to 1800Z, Oct 13
Classic Exchange, Phone	1300Z, Oct 13 to 0700Z, Oct 14 and 1300Z, Oct 15 to 0700Z, Oct 16
AGCW Semi-Automatic Key Evening	1900Z-2030Z, Oct 16
NTC QSO Party	1900Z-2000Z, Oct 17
ARRL EME Contest	0000Z, Oct 19 to 2359Z, Oct 20
New York OSO Party	1400Z, Oct 19 to 0200Z, Oct 20
Illinois QSO Party	1700Z, Oct 20 to 0100Z, Oct 21
ARRL School Club Roundup	1300Z, Oct 21 to 2359Z, Oct 25
QCX Challenge	1300Z-1400Z, Oct 28
ARRL Sweepstakes Contest, CW	2100Z, Nov 2 to 0300Z, Nov 4

## **NFARL Upcoming Events and Dates**

## NFARL Club Meeting

October 15 7:30p to 9:00p (doors open 7:00p)

Zoom link

Preston Ridge Community Center

3655 Preston Ridge Road

Suite 100 Meeting ID: 862 5582 7457

Alpharetta, GA 30005 Passcode: 584698

#### **NFARES** net

Every Sunday 8:30 PM

NFARL Repeater 147.06 (+) PL100 All hams welcome

#### **Tech Talk**

Every Monday 8:30 PM

NFARL Repeater 145.47 (+) PL100 NFARL Discord

#### **Hungry Hams**

Every Wednesday 11:15 AM



34 East Crossville Road Roswell, GA 30075

#### **CW CHAT**

Every Wednesday 8:00 PM

Zoom link

#### YL Net

Every Thursday 8:00 PM

NFARL Repeater 147.06 (+) PL100

#### **Executive Team Meeting**

October 22 7:00 PM

Zoom Groups.io

### **NFARES Meeting**

October 8, 7:30 PM

The Church of Jesus Christ of Latter-day Saints 500 Norcross St. Roswell, GA 30075 Zoom link

#### **VE Testing**

Second Saturday 8:30 AM

Slope's BBQ

34 East Crossville Road Roswell, GA 30075

Registration required

### **FUN Net (digital)**

1st & 3rd Thursday 8:00 PM

NFARL Repeaters

147.06/443.15 (+) PL100 Echo-Link N4SBD-R

Node: 522043

## **NFARL Contact Us**

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## nfarl.org

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

# **Club Repeaters**

Frequency	P.L. Tone	Location	Notes
145.470 (-)	100 Hz	Morgan Falls	EchoLink Node 560686 NF4GA-R
147.060 (+)	100 Hz	Roswell Water Tower	Primary ARES Repeater
443.150 (+)	100 Hz	Roswell Water Tower	
444.475 (+)	100 Hz	Morgan Falls	

Club Call signs: NF4GA and K4JJ

Extra Extra answer: **D** (question E1B01)

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