



Ian Kahn— "Using N1MM Logger+ During a Contest" /Mike Riley, KN4OAK

Knowing how to take advantage of all the features in your favorite logging software can provide you an increased level of confidence in your contesting capabilities. At the same time, this knowledge can make your contest participation more enjoyable by reducing the stress involved with controlling the QSO records entered into your log and ensuring the data standard needed for the contest entry is maintained. You can develop the operating knowledge needed to master the logging tools on your own through repetitive practice. Or, you can augment your skill development by learning some things from those who have already mastered use of the logging tools. Ian Kahn, NV4C, is going to present some instruction on "Using N1MM Logger+ during a contest" at the March NFARL club meeting.

When you go to the N1MM Logger+ website (<https://n1mmwp.hamdocs.com/>) one of the first things you can read states "N1MM Logger is the world's most popular ham radio contest logging program. For CW, phone and digital modes, its combination of contest-optimized features is unmatched." We won't attempt to substantiate this claim, but we will bet that even though the developers claim this, unless an individual operator makes an effort to learn how to use the software, it really doesn't matter. Ian's presentation should be a great opportunity for those who are contemplating first-time use, those who may already use it, and those who use other logging tools who may not know what N1MMLogger+ is capable of.

What credentials make Ian a suitable presenter on this topic? Well, Ian does have nearly 15 years of experience as a licensed amateur radio operator, during which he has achieved numerous awards for contacts made. He also uses N1MMLogger+ and enjoys participating in amateur radio contests. You can usually find Ian at ARRL Field Day. Additionally, Ian leads the NFARL Volunteer Examiners in efforts to provide testing for those interested in obtaining an amateur radio license. With his knowledge in the operating "rules & regulations", that makes him a pretty capable judge of what best practices in the hobby might entail. Read more about Ian on his QRZ page, even if you think you know what his background is.

Join us Tuesday evening, March 15, 2022 for the NFARL monthly club meeting and listen to what Ian NV4C, has to share with us. Ian's presentation topic will be "Using N1MM Logger+ during a contest".

Members and guests will begin to gather at 7:00PM and the business meeting will start at 7:30PM. Our meeting location is:

Preston Ridge Community Center, 3655 Preston Ridge Road Suite 100, Alpharetta, GA 30005.

The meeting will be broadcast on Zoom; join us on Zoom with the following credentials:

<https://us06web.zoom.us/j/87299099132?pwd=UkJMdHllRGJvSk8zbnNxZ0gvNGFJZz09>

(Meeting ID: 872 9909 9132 Passcode: 576766).

President's Corner / John Norris N4IHV

This is March Madness month for those who follow sports. When I see people participate with such enthusiasm for their chosen sport or hobby, I ask myself how this could apply to ham radio. It only takes a minute to recognize the word PARTICIPATION.

What they get out of the act of participation is much personal gratification and excitement. Ham radio is just as exciting when there is participation which leads to gratification. All of us get more out of something when we are engaged into that something. I have learned over the years that I learn and enjoy anything to a greater extent when I am personally involved.

I began looking for an amateur radio club after a long time away from the hobby. When I visited NFARL the first thing I noticed was the level of involvement by its members. I felt welcomed by everyone I met and felt immediately at home at NFARL. Covid arrived and changed how we could interact, and personal contact was all but eliminated. This quickly changed the dynamics of everything relating to our need to socialize with like minds. With the passing of time, and information learned about Covid, it is becoming evident we will learn to live with the virus and treat it like other viruses society has endured. People, by nature, need contact with each other to learn and improve skills. We also need this contact to maintain good mental health, which promotes physical health. I have always enjoyed the interaction with other members and have learned so much from them. I look forward to the meeting one time per month for this fellowship. We learn more than ham radio. We learn about people from different environments and occupations.

For a long time, I felt I did not have enough time to perform any job in a club and could only be a casual participant. I did not know what I was missing by not being involved. The problem arises when just a few members do most of the work, and then experience burn out. When most members are willing to be involved, it helps all members to continue to enjoy the club and its variety of activities throughout the year. Enjoy NFARL and make it and you a total success!

The Dalton Hamfest was successful, and many of our club members attended. The club sold multiple items and members were able to purchase things they wanted from other clubs.

Be sure to place the Georgia QSO Party on your calendar for April 9-10, 2022. This is one of the best events that we have in ham radio. You do not have to be an expert to enjoy the experience. If you are not sure what it is, just ask any of the club members who have participated in the past. The information provided under the activities section of our web page. Join and have fun!

That is my March Madness!

John Norris, President NFARL

N4IHV

Stray- / R. Bruce Campbell

Most crystal microphones contain a Rochelle salt crystal which should be protected from high temperature, humidity, and high voltage. The Rochelle salt crystal can be permanently damaged by temperatures above 125 degrees F. (50 degrees C.) and by excessive humidity. The best service from a crystal microphone will be obtained if it is used at room temperature, at a humidity of about 50 percent. Since inside automobile temperatures rise to high values in the summertime, it's not a good idea to use the crystal microphones for mobile service during hot weather. Be careful when soldering connections to a crystal mike. Don't connect the mike to speaker or power outlets carrying a high voltage.

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Two Channel Logic Level DC Relay Board

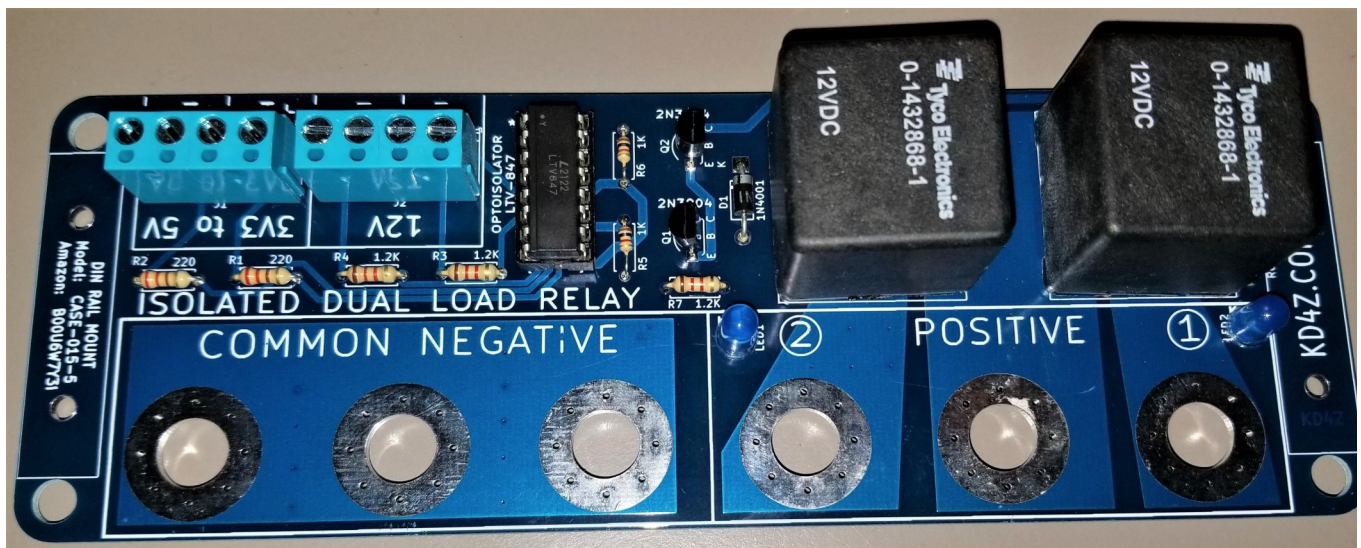
During last month's NFARL Club Meeting, I gave an introduction to KiCad, a Computer Added Design program for creating printed circuit board layouts. Part of the presentation covered the design of a logic level controllable 12V DC power switching board. The goal was to demonstrate the design and implementation of a project board that is useful in the typical ham shack. The resulting board can interface the low voltage logic levels typically found on the Raspberry Pi, or Arduino, and switch two high current devices, such as what an HF rig would require. It also can be controlled with a 12V signal.

I had prepared the circuit board ahead of the presentation and had sent it out for fabrication. I intended to have the actual boards and parts available at the meeting. However, due to the ongoing global parts supply line shortages, and other delays, I was unable to show the finished product during the presentation. Plus, the two large relays are out of stock everywhere! I have since received the printed circuit boards and have assembled one with parts that I had on hand -- and, IT WORKS!

Well, except there is always a glitch in the Matrix. In this case, it's trivial, and easily correctable. It appears I labeled the outputs backwards! Channel 1 is actually channel 2, and vice-versa. Not a big deal, but annoying! I can fix that issue when I send out for more boards, however the solution for the existing boards will be a stick-on labels.

So, for those folks that signed up to get one of the board kits, it will be mid-May before the relays are expected to arrive. I have already acquired all of the other electronic parts however. There are 19 boards unspoken for at this point, so forward me your contact info if you want to be placed on the kit list. We are asking for \$20 to cover the costs of the printed circuit board fabrication and parts including the 40Amp relays. You will have to acquire the six 5/16" (or M8) bolts, nuts (two per bolt) and flat washers to complete the connections. I found nice brass ones at one of the big box stores.

Here's a picture of the finished project board.



45th Anniversary Cake / Mike Riley, KN4OAK

In case you weren't able to share in the cake consumption at the February club meeting, we thought you'd at least enjoy some photographs to help celebrate the occasion. What occasion? Why the NFARL 45th anniversary, of course!

If you'd like to help celebrate our club's 45th you can still do so all year long. We'll be holding a couple of events this year where there will likely be some recognition to this milestone. There is one coming up **May 14, 2022** with the U.S. Islands Awards program Special Event. Look for upcoming information from Steve Ko4VW and Terry W4YBV.



Quite a nice looking cake! And it was tasty, too!



Terry W4YBV and Steve KO4VW did a great job sourcing the cake.



These two founders are smiling because they found something...



Fred N4CLA makes the cut

W4QO Code 10 Awards / Steve Randall, KO4VW

North Fulton Amateur Radio League is proud to have presented the W4QO code 10 award to the following members:

- WE4AUB John Hathcock
- KO4DFC William Johnson
- W4QDV David Price
- WA3TRA Tony Santoro

These awards are presented to Hams who successfully completed at least 10 CW QSOs on their own. All of these operator successes are the result of their work in learning Morse through CW Chat, started by Jim Stafford W4QO, and now hosted by me, Steve Randall KO4VW. Watch for these guys on the CW section of the bands. You might find John on the K1USN SST, the CW OPS Mini Tests, Straight Key Century Club and wherever you find CW. David prefers the Straight Key Century Club, where he is already a Centurion and on his way to becoming a Tribune as well as other events. It was great working Will on his last SOTA adventure. Will is focused on portable operation and also has CW contacts on the K1USN SST and other contests. Tony can be found as well working the K1USN SST and Straight Key Century Club as well as random QSOs. Congratulations to these guys for joining the world of CW operators and they will continue to advance and promote the art of CW.

Many don't realize how much fun CW can be. There are things happening every day from hour long Sprints, Fox Hunts, QRP events, Straight Key events. Slow Speed tests, and of course the CW Ops events as well as many others. Escape the crowded bandwidth hungry SSB mode to CW where an extremely small portion of the band can handle an enormous amount of traffic. If you think you might want to get involved in the fun, join us for CW Chat on Zoom, Wednesdays at 8:00 PM, where we use W4QO's method to get you started the right way so you can learn quickly and join in the fun!!!!!!

Steve Randall
KO4VW



Will Johnson KO4DFC with his
W4QO Code 10 Award



John Hathcock WE4AUB with his
W4QO Code 10 Award



Tony Santoro WA3TRA with his
W4QO Code 10 Award

Getting Started in SOTA/POTA / Tom Jacobs, N4NFM

Portable operations are all the rage these days with continued strong growth in the two largest portable programs, *Summits On the Air* (SOTA) and *Parks On the Air* (POTA). You might be interested in portable operations but are not sure where to start. This summary will help get you started whether you are interested in a local park, a summit or both.

Registering

The first step will be to register for the program you are interested in participating in. Each program has their own website to start with and the process is simple.

SOTA = <https://www.sotadata.org.uk> (Register link in the upper right-hand corner)

POTA = <https://pota.app> (Sign Up link in the upper right-hand corner)

Once you're registered you are ready to start thinking about what gear to take out on your adventure.

What Radio Should I Carry?

First you will need to select a radio suitable for your needs and power supply (i.e. battery) capabilities. QRO rigs are great for *Parks On the Air* but are not required to activate, plenty of hams operate only QRP in parks and they get plenty of contacts. A QRO radio will also draw more power on receive and transmit so you will need to size your battery supply appropriately unless you have the option to run commercial power. The most common battery type used for portable operations today is the Lithium Iron Phosphate (LiFePO4) batteries. While Bioenno is the most popular vendor for amateur radio there are many others available, many for lower costs than the Bioenno series. Typically a battery of 15ah or greater capacity should suffice for a QRO activation. See Figure 1 for a typical POTA setup (dog is optional).



Figure 1—Typical POTA setup

A lightweight QRP rig is best for *Summits On the Air* activations, something like an Icom 705, a KX2, the TX-500, Xiegu 6100 or many other options. See Figure 2. You can even take a Mountain Topper if you plan to just run CW. You will be able to carry significantly smaller batteries for a QRP rig, most operators typically carry between a 3ah and 6ah battery for a SOTA activation, although honestly at QRP levels a 3ah should have

plenty of juice for an activation. Don't forget to think about protecting your radio for the hike up. There are several ways to do this including purchasing an inexpensive padded camera bag, a small rigid case, etc. It is not recommended to take 'flight cases' or hard cases on hikes as they are bulky and heavy to carry.

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Figure 2—Typical Radios

What Antennas Will Work for My Activation?

Now that you've selected a radio it is time to determine what type of antenna you need. Antenna needs vary widely from POTA and SOTA, with SOTA typically relying on lightweight wire antennas such as dipoles, end fed half waves or random wires. Some advantages of the end feds and



dipoles are they are resonant on their respective bands and thus SWR is not an issue. Carrying a random wire type antenna or other non-resonant antenna means you will need to add a portable tuner to your kit such as the Emtech ZM-2. Most SOTA operators rely on simple wire setups as they are easy to deploy, either using existing branches or with a portable mast such as those sold by SOTABeams. You should research your summit to ensure that it meet your requirements, i.e. trees for hanging antennas or supporting masts, or clear areas in which to guy a mast.

POTA activations allow for much more antenna flexibility as you will typically have more space within which to deploy and operate. With a park activation you are limited only by space and your capabilities. However, the same antenna setups used for a SOTA activation can also be deployed in parks. Many park activators use end fed half wave antennas, dipoles, etc. when activating.

Other antenna solutions include coil loaded verticals such as the SuperAntenna or Wolf River Coil. These antennas do not require trees or a mast to hang wire and can be beneficial in areas where your ability to hang an antenna is compromised.

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Electronics & Logging

Now that you have a radio and an antenna picked out for your adventure it's time to gather up the rest of the gear you will need to complete your activation. Most importantly this means a method for logging. Logging can be accomplished in multiple ways, many folks take a laptop along for *Parks On the Air* activations and use logging software such as N1MM+, N3FJP or HAMRS. Digital logging up front will simplify your log submission process later on but it is not required, many operators still utilize the good old pencil and paper method for logging.

Many activators are adopting mobile devices or tablets for logging now as well. There are several apps that you can use to log, many are free on both the Google Play Store and Apple AppStore, and some have a small up-front cost such as HAMRS. The HAMRS app is specifically designed for POTA and SOTA logging and is worth a look if you are interested in mobile logging.

It can be difficult to carry an entire laptop to a summit, remember that ounces matter when you are carrying everything on your back, so many SOTA activators use either paper or mobile device logging methods.

Weather Gear & Extras

It can be easy to get carried away packing every radio accessory and extra cable you have but don't forget that you will be operating outside, dressing for the weather and having any needed cold weather or rain gear is a must. For hiking it is recommended to carry first aid and emergency gear such as water purification if needed. You don't need to get carried away and carry a full surgical kit but basic first aid supplies can come in handy more than you think in the outdoors. Many Georgia trails are well worn but a good pair of boots will also go a long way, and that extra light jacket for the summit might help if the temps are cool and it's a windy day.

Selecting a Site to Activate

Both SOTA and POTA have features on the web where you can view maps of activatable entities (i.e. summits or parks) that can help in planning your adventure.

SOTA



Summits On the Air's mapping website is SOTA Maps, the website is <https://mapping.sota.org.uk/>.

SOTA is a worldwide program with activation opportunities in many different countries. The map can initially be confusing but once you understand how SOTA breaks down associations, which are basically primary regions such as countries or US states, and regions, which contains the summits that can be activated.

Georgia's region is W4G. You can select this from the drop down menu on the SOTA Maps website. Georgia has three regions, the High Country (HC), North Georgia (NG) and Central (CE). Each region contains the summits/mountains that are activatable. Each summit has a designation, such as Brasstown Bald, which is in the North Georgia region, and is designated as W4G/NG-001. Summits are ranked based on height in each region with the tallest mountain in a region being -001, the second tallest being -002, etc. Point values are assigned to summits based on their height above sea level, ranging from 10 points down to 1 point.

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Getting Started in SOTA/POTA / - continued from previous page

If you have a specific mountain to activate already in mind you can locate it by browsing to its region. In Georgia the High Country (HC) region contains mountains in the northwest portion of the state, the North Georgia (NG) region contains mountains in the north and northeast of the state. Once you select a summit it will be identified on the map with a popup, clicking the blue summit designation link on top of the popup will open a new tab or window in your browser. This tab will have information regarding the summit including notes from previous activators which can be extremely helpful in summit planning.

If you do not have a summit in mind play with the map and look at various summits that may be near roads or established trailheads. Many Georgia summits are along trails such as the Benton Mackaye and the Appalachian Trail, allowing relatively easy access.

Reach out to any active SOTA club member with questions regarding summits, especially for advice on your first summit.

POTA



The *Parks On the Air* website for mapping is <https://pota.app/#/map>.

Almost all state and national parks are part of the *Parks On the Air* program and are eligible for activation. The POTA Map will attempt to determine your location and should display a map of parks in the Georgia area when you open the map. Eligible parks are identified with yellow dots on the map, and clicking on a dot will open a popup showing the parks name and designation number. This window also has a "more info" link that will open details such as the park location and top activators.

Some parks may have multiple locations to activate but will only appear once on the map. Park K-0662, the Chattahoochee River National Recreation Area, has multiple locations along the river which can all be activated under the main park ID. Other popular local parks include Kennesaw National Battlefield Park, Red Top Mountain State Park, and many others within the North Georgia region.

Rules for activating for *Parks On the Air* differ slightly than with SOTA in that SOTA requires your entire station to be portable and detached from commercial power, vehicles, etc. POTA allows you to activate any way you like so long as you are within the boundaries of the park, so if you wanted to drive your RV filled with radios into a park to activate that's perfectly fine. This allows for larger stations, QRO radios, and more complex antenna setups. Being able to activate from a mobile also means that if you have HF mobile capabilities you simply need to park within the borders of a park, power up the radio and start your activation.

Making it Happen

Now you're at a park or on a summit, you have your radio, antennas and supporting gear, what next?

While not required to activate a lot of operators will self-spot themselves on the SOTA and/or POTA spotting networks. To spot for SOTA you can use SOTAWatch, <https://sotawatch.sota.org.uk/en/>, and for POTA you can spot on the POTA app website, <https://pota.app/#/>. Spotting ensures that the chasers out there looking for parks and summits will see your spot and will spin the dial to your frequency to chase you.

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Getting Started in SOTA/POTA / - continued from previous page

Calling CQ is simple, you want to include key information such as your call, whether you're activating for SOTA or POTA, and your summit or park designation ID. For example, "CQ *Parks On the Air*, CQ POTA. (Your Call) is in park K-0662 calling CQ, CQ any station" or "CQ *Summits On The Air*, CQ SOTA, and (Your Call) is on W4G/NG-001, Brasstown Bald, calling CQ *Summits On The Air*." Do not be surprised if your CQ call results in a pile up, there is a large community of chasers out there who monitor the spotting sites, so be prepared to start logging once you start calling CQ. Do not be discouraged if it takes a little while for contacts also, persistence and patience are as key as having a good antenna.



Submitting Your Logs

So you made it to a park, you made contacts, you are activated, now what? It's time to submit your logs to either SOTA or POTA. If you used a laptop, mobile app or other electronic device to log in the field you are a step ahead of the game, if not the first step will be to take your paper logs and convert them into a digital format that supports ADIF exporting. Note this step is not necessary for SOTA logs.

To submit a log for *Parks On the Air* you will need to email the regional coordinator for your call sign's region (note, may not be your actual region) with a copy of your ADIF file. If your call is a "4" call you will submit your log to K4@parksontheair.com. Otherwise send to the coordinator that associates with your call sign region, i.e. if you have a "9" call you would email K9@parksontheair.com. Logs should be submitted with a standard file name format including your call, the date, etc. I.e. "N4NFM@K-2194-20220101.adif"

To submit a log for SOTA you will need to log into the SOTA Database (<https://www.sotadata.org.uk/en>). From the menu in the top left select 'Submit Logs' and then 'Submit Activator Entry.' You will need to manually select your association, region and summit and then enter your log directly into the web portal.

Points & Awards

While accumulating points, awards and accolades is not usually the primary reason portable operators choose to activate it can be a fun aspect to the hobby. Both the SOTA and POTA websites do a good job of explaining how to earn points and what awards are available. *Summits On the Air* focuses on the actions of activating or chasing, with points accumulated with each new activation or chase. There are also summit to summit bonuses, however with SOTA most activators are chasing the coveted SOTA Goat award, which is awarded once an operator reaches 1,000 activator points.

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Getting Started in SOTA/POTA / - continued from previous page

Parks On the Air has many more types of awards that can be earned, ranging from activating numbers of different parks, chasing parks or chasing park to park contacts while activating. POTA has award tiers for activators and chasers and new awards are automatically tracked and added to your profile as you earn them.

Have Fun!

Above all, the goal with all portable operating, especially in parks and on summits, is to have a great time. It is extremely rewarding to climb a mountain, deploy a radio station and make the required contacts to activate. There is something captivating about activating a park when that pile up starts. Enjoy being outside, enjoy being active, and enjoy the hobby. Hopefully we will meet in a park or on a summit one day soon.

73,

Tom Jacobs

N4NFM

March VE Candidates / Wes Lamboley, W3WL

MARCH MADNESS DID NOT MATERIALIZE, AS ALL TAKING THE HAM TESTS PASSED!

Slope's Barbeque was again the site for NFARL exams on the 12th of March. Five candidates all were successful in achieving their desired class of license. There were two new Techs, one General and two Extras in the mix.

Keisa McGrew got her Technician, and already knows a lot about ham radio. Her dad is a ham; she is a software tester and interested in all stuff digitally related to ham radio. She and her dad plan to start attending NFARL meetings.

David Altman got his Tech and sports a comprehensive code background from being in the Army. His forte was 5-letter encrypted code groups at 25 WPM. He says he is rusty, but I think it will come back very quickly. He is very interested in SOTA and plans to get active in that and ARES.

Hugh Walton-KG4QJE got upgraded to General. He lives in the Cumming area.

Randy Stearns – KO4KVK, is ex-military and a retired software developer. He is already involved with the ARES group in Cumming.

Tony Santoro-WA3TRA, is an active member of NFARL. He also is a Vietnam Vet and retired from Coke as an IT geek. Tony is also very active in CW Ops and enjoys contests using CW.

Candidate Name	Call (if applicable)	Test
David Altman		Tech
Randy Stearns	KO4KVK	Extra
Hugh Walton	KG4QJE	General
Tony Santoro	WA3TRA	Extra
Keisa McGrew		Tech



L to R: Tony Wa3TRA, John N4IHV, Wes W3WL, and John WE4AUB

EZNEC

Have you heard the good news? The author of EZNEC, Roy Lewallen, W7EL, retired December 31, 2021. Beginning January 1, 2022, EZNEC became free to download. Thank you Roy - it was a generous and classy thing to do.

You can download it here: <https://www.eznec.com/>

I have relied on three pieces of software since the early days of computing. A logging program, a contesting program and EZNEC – an antenna modeling program.

Is antenna modeling something you have avoided since the day you got your license? If so, it's time to revisit the subject. Most hams don't model antennas. That's a shame because modeling is no longer difficult at a rudimentary level, and that's all you need to understand the antennas you have and the antennas you might want next.

The mathematical basis for most ham radio antenna modeling is the Numerical Electromagnetics Code (NEC), originally written in FORTRAN in the 1970s. It was written by Gerald Burke and Andrew Poggio working for Lawrence Livermore National Laboratory. Just the words "Numerical Electromagnetics Code" might be enough to scare some people off. Don't be one of them. Basic modeling is easy. It provides a good return on investment too. The insights into how your antennas work and how to make them better is worth the time it takes to get EZNEC up and running.

EZNEC was developed by W7EL in the mid-1990s. A predecessor program, ELNEC, was released by Roy in 1990. The first Windows version of EZNEC was released in 2000. ELNEC, EZNEC and many others are GUIs (graphical user interface) that make it easy to use NEC without the hassle of dealing with NEC's native code. In my experience, native NEC is nearly impossible to use and the program does not produce graphs – one of the most useful outputs of the GUIs. The typical user needs a GUI. I'm technically inclined and I need a GUI. Thank you again Roy.

It's beyond the scope of this column to teach modeling. Fortunately there is a lot to read on the internet, in the ARRL's Handbooks and in the EZNEC help files. Download EZNEC.exe, install it and the help files are readily accessible. The ARRL book: *Antenna Modeling for Beginners* is another good place to start.

For every antenna you model, a file is created. That file will be named [you pick this].EZ. There are thousands of XXX.EZ files available for free on the internet. The ARRL Antenna Book includes hundreds of XXX.EZ files, including one for every antenna described in the book. Frequently *you won't need to create the model* for an antenna – someone already has. This includes models for commercial antennas. To understand the performance of an antenna, simply start the program and open the antenna's .EZ file. You can do what we call "antenna modeling" without making models.

An example: I am currently looking into a friend's proposed use of a HyGain 204BA close to the ground. The 204BA model is available; I didn't need to make one. Using the existing model, I'm simply adjusting the height to see what happens. I will be saving my friend a lot of time and money. A 204BA at 15 feet is not a good antenna!

Another example: Using EZNEC, I opened the 14 MHz "backyard dipole" file that comes with the ARRL Antenna Book. Figure 1 shows the antenna's elevation pattern for heights of 35 feet (1/2 wavelength) and 70 feet (one wavelength). Changing the height was straightforward and I didn't

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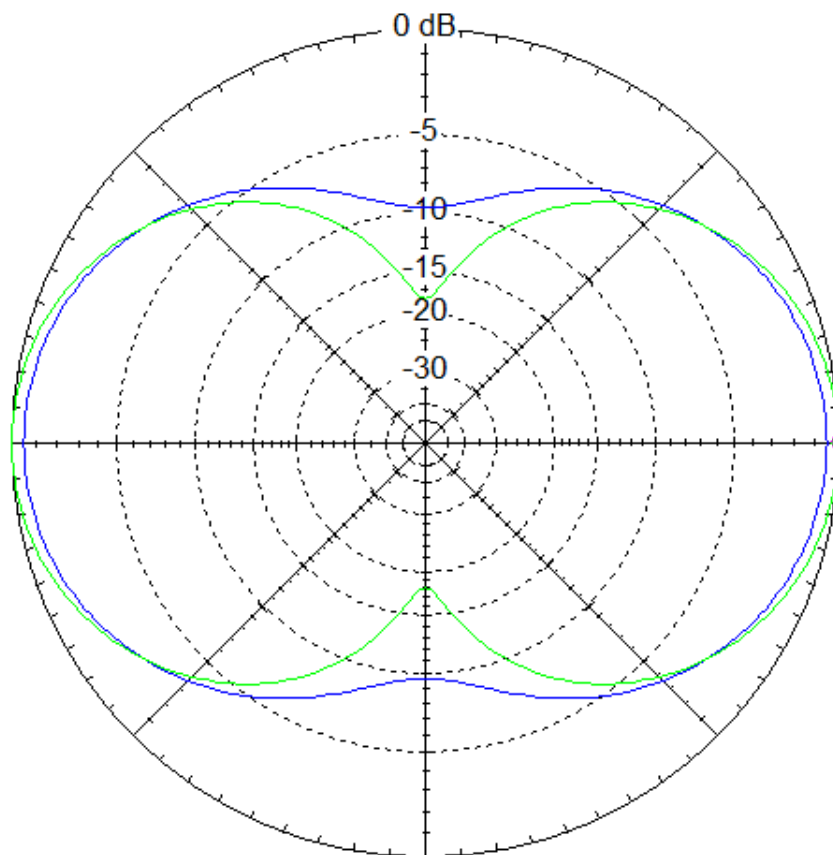
Around the Shack/ - Continued from previous page

have to create the model. Given a choice, which height is better for a 20 meter dipole? There isn't a "right answer." Are you solely interested in DXing? Are you only interested in local rag chewing? Figure 1 shows us what we need to know to make a decision and avoid time-consuming trial and error.

Modeling antenna options before you put something up can save A LOT of time and money. Give EZNEC a try. It's free after all.

Total Field

- * **Primary**
- At 30 Feet**
- At 60 Feet**



EZNEC Pro/2

14.1 MHz

Figure 1. The elevation pattern for a 14 MHz dipole at $\frac{1}{2}$ wavelength and 1 wavelength above the ground.

73,
Hal N4GG/4

Extra Extra! / From the Extra Class Question Pool

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



E2C07

What is the Cabrillo format?

- A. A method of exchanging information during a contest QSO
- B. A standard for submission of electronic contest logs
- C. The rules of order for meetings between contest sponsors
- D. The most common set of contest rules

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 will be 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](#).

Logging Programs for Contesting / For Your Reference

Here are a few links to amateur radio logging programs and tools you may find useful.

Program Name	Web site
N1MM Logger+	https://n1mmwp.hamdocs.com/
N3FJP	http://www.n3fjp.com/
DXLog.net - Contest logger	http://dxlog.net/
Ham Radio Deluxe	https://www.hamradiodeluxe.com/
Log4OM2	https://www.log4om.com/
Cabrillo Log Evaluator Software	https://www.qsl.net/w3km/cabrillo.htm
3830scores.com Activity Tracker- NFARL	https://www.3830scores.com/grouptracker.php?arg=0cBYRp3wllrkV39DXfwEMjtdJnaYGFSGuYOsrnYOHo4%3D

Contest Corner—

These are some contests and events besides the "routine K1USN, CWops, and other organizational events" scheduled to occur the near future. These are not all the contests that may be operating during the time periods shown. However, we moved Contest Corner to its own page this month because there are so many opportunities for you to consider, we thought it would be a handy reference.

Contest Name	Time & Date
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Mar 14
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Mar 17 and
	0200Z-0300Z, Mar 18
+ Virginia QSO Party	1400Z, Mar 19 to 0400Z, Mar 20 and
	1200Z-2400Z, Mar 20
+ Run for the Bacon QRP Contest	2300Z, Mar 20 to 0100Z, Mar 21
+ SKCC Sprint	0000Z-0200Z, Mar 23
+ CQ WW WPX Contest, SSB	0000Z, Mar 26 to 2359Z, Mar 27
+ FOC QSO Party	0000Z-2359Z, Mar 26
+ QCX Challenge	1300Z-1400Z, Mar 28
+ QCX Challenge	1900Z-2000Z, Mar 28
+ QCX Challenge	0300Z-0400Z, Mar 29
+ Louisiana QSO Party	1400Z, Apr 2 to 0200Z, Apr 3
+ Mississippi QSO Party	1400Z, Apr 2 to 0200Z, Apr 3
+ Missouri QSO Party	1400Z, Apr 2 to 0400Z, Apr 3 and
	1400Z-2000Z, Apr 3
+ Florida State Parks on the Air	1400Z-2200Z, Apr 2 and
	1400Z-2200Z, Apr 3
+ SP DX Contest	1500Z, Apr 2 to 1500Z, Apr 3
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Apr 7 and
	0200Z-0300Z, Apr 8
+ QRP ARCI Spring QSO Party	0000Z-0600Z, Apr 9
+ JIDX CW Contest	0700Z, Apr 9 to 1300Z, Apr 10
+ SKCC Weekend Sprintathon	1200Z, Apr 9 to 2400Z, Apr 10
+ OK/OM DX Contest, SSB	1200Z, Apr 9 to 1200Z, Apr 10
	1300Z, Apr 9 to 0100Z, Apr 10 and
+ Nebraska QSO Party	1300Z-2200Z, Apr 10
+ New Mexico QSO Party	1400Z, Apr 9 to 0200Z, Apr 10
+ Texas State Parks on the Air	1400Z, Apr 9 to 0200Z, Apr 10 and
	1400Z-2000Z, Apr 10
+ Georgia QSO Party	1800Z, Apr 9 to 0359Z, Apr 10 and
	1400Z-2359Z, Apr 10
+ North Dakota QSO Party	1800Z, Apr 9 to 1800Z, Apr 10
+ Hungarian Straight Key Contest	1500Z-1600Z, Apr 10
+ ARRL Rookie Roundup, SSB	1800Z-2359Z, Apr 10

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!
 - **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 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 Saturday — Royal Order of the Olde Geezers "Breakfast"** -
This informal breakfast group on Saturday mornings is **NOT MEETING IN PERSON** during the COVID issue. A notice will be made when in-person meetings commence again.
 - **Second Tuesday — NFARES Meeting - April 12, 2022 Presently- Online meetings only.** Check NFARES.org for more information.
 - **Second Saturday – VE Testing - NFARL April 9, 2022 session:**
By reservation only. See the "[Test Sessions](#)" web page for details & registration process. Contact Ian at nv4c.ian@gmail.com for questions / concerns / reservations.
- **Third Tuesday— NFARL Club Meeting** - March 15, 2022, 7:30 PM
Live meeting! Preston Ridge Community Center - Zoom Included!
—March 2022 Meeting: "Using N1MM Logger+ during a contest" (see Page 1)
Door opens at 7 PM for Social Networking. Meeting begins at 7:30 PM
- **Fourth Tuesday – NFARL Executive Team Meeting** - March 22, 2022, 7:00 PM.
Online meeting only — monitor website and NFARL Groups.io reflector for updates.

Contact Us

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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

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: B (question E2C07)

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