



The

Modulator

Newsletter of the Newport County Radio Club Late Fall 2020

NCRC Officers for 2021

NCRC elections for next year's officers were held at the November meeting. They will be installed at the December meeting.

President Peter Bartram KQ1X
Vice Pres. Paul Fredette K1YBE
Pres. Ant. Dick Bianco KC1IPJ
Secretary Bob Beatty WB4SON
Treasurer Ted Wrobel W1GRI
Director Dave Huth KC1LON
Director Pete Lawson W1LAB
Director Willy Maclean W1LY
Director Mary Nebiolo KC1NEB
Director Jim Sammons KA1ZOU

Retiring officers are:

President Dick Bianco KC1IPJ
Director Paul Wynn AC1DW

We thank Dick for his service as President for the past two years and Paul for his service as a Director for the past three years.

NCRC leadership is not a closed group and the Executive Committee (all officers) extends a standing invitation to any member who would like to become more involved with club governance. A good starting point is to become a Director and to support that, we recently changed our By-Laws to allow more Directors. Elections for the coming year are held in November and more information is available by contacting any officer.

2020

As Jerry sang, *It sure has been a long hard ride*. Who could have imagined how this year would unfold before COVID became a household word?

On-line Meetings

Among its myriad impacts and changes, NCRC also has had to bend to the realities of today. The most obvious and continuing change has been on-line meetings via Zoom. It's fair to say that these meetings have not slowed down our activities, although there is no substitute for renewing conversations face-to-face.

Soon after our first on-line gatherings, it became clear that there were several compensating benefits to this format. Not only is it convenient, but one could have refreshment or dinner while attending. And members living at distance could be just as close as county residents.

Now that a viable vaccine appears to be on the horizon, it will be interesting to see how life, and our meeting format, return to something more familiar.

Thursday morning breakfast

Our other regular in-person activity is the once-a-week breakfasts held at Chelsea's in Middletown and Rome Point Cafe in North Kingstown. This activity has not made the on-line transition

as well and will probably not pick up again until after wide-spread vaccination.

COVID and Amateur Radio

It may be that isolation has increased interest in Amateur Radio. The number of students signing up for Bob, WB4SON, Beatty's Technician License class and the number of VE exam session candidates has increased. And our membership continues to grow. We can expect some of this interest to be circumstantial and temporary, but others will discover a new activity and stay with it.

In the Mean Time...

With a membership in excess of 150, we are able to support a series of new opportunities for members:

Parks on the Air, POTA, sees members packing portable stations to make contacts from parks. See page 2.

NCRC is challenging members to get on the High Frequency bands in the Get On The Air Challenge—GOTA-C. See page 3.

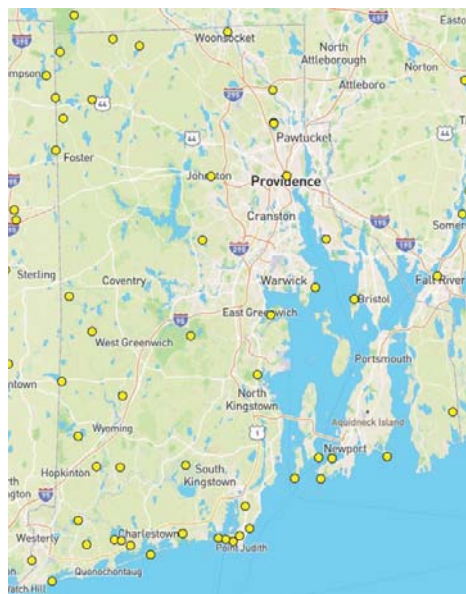
A group of helpers, *Elmers*, in ham-speak, is being set up to assist members set up stations, antennas, make recommendations, answer questions or help you with other radio issues. Contact any Executive Committee member.

What's That Station I Hear—Why it's Parks On The Air!

Portable Operating

NCRC has a rich history of setting up portable stations in the field and on islands. When the National Park Service started *National Parks on the Air* to celebrate their 100th anniversary, NCRC operators activated several near-by parks. When the year-long program ended, there was a collective sigh of disappointment from the ham community.

But not for long! A group of hams established *Parks On The Air*, POTA, and broadened the program to include State Parks in addition to National Parks.



Rhode Island POTA sites

The effect of this broadening is that there are many parks within easy access of any ham. The majority of POTA sites are accessible by road, making POTA operations easy and quick to set up and easy for anyone to join in.

Although very successful, our Island Activations were demanding and required a carefully

planned expedition. And as many islands are privately owned, obtaining permission was another complication.

But POTA operations are simple to set up. Accessible by road and open to the public, you drive up, set up, and get on the air. That makes it easy for members to see how it works and what High Frequency operating is all about. *Be sure to see Nancy, KC1NEK, Austin's story beginning on page 5.*

And as an added benefit, these very public stations are the source of curiosity and offer an excellent opportunity to demonstrate Amateur Radio.



Bob's truck station and guests.

Stations From Everywhere

Parks On The Air became an overnight sensation among hams. Scanning around the bands on any day will usually find multiple POTA stations. The program includes North America and 28 other countries with more being added regularly.

We regularly hear "Park-to-Park" calls from other activators. Foreign activators are identified by their park prefix that follows the ITU country designation. So it's common that we hear VE-xxxx Park-to-Park calls from Canada.

Sound interesting? You can get more information and find out about up-coming activations by emailing:

pota@w1sy.org

Most parks are well-identified making it easy for you to find an activation.



Ninigret National Wildlife Preserve

If you are new to HF operating and want a hands-on introduction, a POTA activation will show you more in a half-hour than you can learn any other way.

More information

The Parks On The Air web site describes the program in detail.

parksontheair.com

There you will find that to become an activator, you must register with the program. That information is available under the "Help/Getting Started" tab, along with a PDF and a video guide describing the program.

You will also find for your contacts to count for yourself *and your contact*, you must submit your log as a digital ADIF file. This is not difficult, but you may need some assistance the first time through. As described on page 1, our club Elmers are happy to assist you with this.

Where Art Thou Repeater?

As most of you know by now, W1SYE, our Portsmouth repeater is not doing well of late. The main electronics, although originally well-built and robust, is now over sixty years old. There are problems with the antenna and its feedline too.

The effect of these problems has been to reduce the range and reliability of the repeater. We had been able to deliver reliable, wide-area coverage for decades. But we have reached the point where repair is no longer practical and replacement is the only option to maintain our emergency communication capability.

The repeater committee has already used club funds to replace the repeater electronics, but we now need to replace the antenna too. The final cost of all repairs will be close to 8,000 dollars. NCRC applied for a Champlin Foundations grant to offset this cost, but in the end, the Foundations was not willing to support a club.

Donations Requested

Fortunately several club members have stepped up to provide a matching fund of 2,500 dollars to be matched by other member donations. We are asking all members to consider making a donation toward the repeater matching fund by going to the "Pay Dues or Donate tab" of the club web site and clicking the first "Donate" tab. Your generosity is much appreciated.

www.w1sy.org

Get On The Air—GOTA-C

If there is a theme apparent in this newsletter, it has to be High Frequency operating. From the earliest days of radio, when spark gap transmitters, lightning machines by any other name, operated at low frequencies with mile-long antennas, it was Amateur Radio that demonstrated that High Frequency signals could be reflected off the Heaviside Layer* for around-the-world coverage.

There is nothing comparable to the thrill of a first time contact with a G, F, or other foreign call prefix. Willy, W1LY, MacLean calls HF "The heart and soul of Amateur Radio."

Although there is some movement toward opening up HF privileges to Technician Class hams, at this time HF phone requires a General or Amateur Extra Class license. The step up from TECH to general is not difficult and in some ways, is easier than the rote memorization of band edges required to fulfil FCC TECH requirements.

We encourage all TECHs to consider working toward their General during this time of reduced activity. And to help with that, we have General class instruction and of course, our Elmers mentioned several times in this newsletter.

GOTA-C

General and Extra class members are challenged to get on the air on the high frequency bands beginning January 1st, 2021. The goal is to encourage members who have not been regularly

active to get on the HF bands in phone mode. And also to urge TECHs to work toward entry to the HF bands with a General license.

How Does it Work?

Participating in GOTA-C is easy. All communications are by email to:

[gotat@w1sy.org](mailto:gota@w1sy.org)

- Send an email as above at any time to indicate your participation. We don't want to pester members; only respondents will be included.
- Keep a count of contacts made on 80 through 10 meters, phone only. No digital or CW modes.
- Report your count totals at the end of January, February, and March.
- This is an honor system. Only report your phone totals, no log required.
- Send questions as above.

Participants who make 25 contacts will earn a snappy certificate. All participant totals will be posted for bragging rights. At the end of March the program will be evaluated for possible changes or continuation.

* Grizabell, the Glamorous Cat, ascends to the Heaviside Layer in the musical, *Cats*. Oliver Heaviside, a self-taught electrical engineer, mathematician and physicist, predicted the existence of a charged atmospheric layer in 1902, which became known as the Kennelly-Heaviside Layer. We now know it as the E layer of the ionosphere.

How Does One Become a Ham?

Every ham has a story. This is the story of Ryan, KC1KUF, Lukowicz, now a General Class ham and a freshman at North Kingstown High School.

Ryan's story begins with his neighbor, Bob, WB4SON, Beatty. What started as a casual conversation two years ago became a steady effort that led to his earning first a TECH, and then a General license this summer. Ryan has limited vision, so our VE team assembled at his home to administer his FCC examinations. We were all proud when he passed both exams on his first try.

Now an accomplished Winter and Summer Field Day operator, it was only natural that he would find new ways to get on the air in the field.



Ryan, KC1KUF, activating Coccumcussoc State Park

Recently he activated Coccumcussoc State Park in North Kingstown under the Parks On The Air program. Bravo Ryan!

Volunteer Examinations

The Old Days

Talk to long-time hams and they'll tell you of taking their license exams at regional FCC Field Offices. Here in New England, that site was the old Customs House building in Boston. After spending the better part of two hours in stop and go traffic on Route 1, the candidate would ride the rattling elevator that was built by Paul Revere's blacksmith to the test room. There, an indifferent examiner would bark instructions. Very stressful, and more than one candidate froze and failed.

The VEC Program Begins

Budget cuts are usually bad, but it was good when the FCC opened the Volunteer Examiner Coordinator, VEC, program. A VEC is a hub of sorts that oversees individual Volunteer Examiners. Our VEC is the largest, the ARRL. Jack, N1JK, Garforth leads the NCRC Volunteer Examiner team. Jack schedules license testing sessions four times each year and adds additional sessions as needed.

NCRC License Examinations

Volunteer Examiners must be one grade higher than the candidate's test, so to administer a General exam, at least three Extra class VEs are required. (Extras can examine extra candidates) We are fortunate to have a deep field of extra class VEs. Further, we have a good working relationship with the other big RI ham club, Blackstone Valley Amateur Radio Club. We usually have VEs from BVARC among our VEs at our sessions.

Jack schedules VE sessions at the Middletown Baptist Church on West Main Road. But with COVID, a new paradigm was needed.

With a bit of Yankee ingenuity, Jack came up with a way to run a session and maintain COVID safety. Working with Paul, K1YBE, Fredette, a plan was put together to use the parking lot behind St. Lucy Catholic Church with candidates in their cars.



St. Lucy's Parking Lot

The lanes were lettered with chalk and arriving cars were directed to specific places. The VEs were arranged between the lanes so that candidates could easily see them and gain attention as needed. Test grading was done in the church lobby with VE's transferring paperwork back and forth.

This unusual arrangement worked very well for the fall test session, but unfortunately both BVARC and NCRC had to cancel their December sessions due to the hazard of handling paperwork under the current COVID surge. Let's hope for a better spring.

Nancy Austin graduated from Bob Beatty's spring 2020 Technician Class and soon became interested in the world of High Frequency communication. Now a General, she has become an enthusiastic HF operator. This is her story.

How can a new General Class ham get started on HF during this cold Covid winter? I'm here with the encouraging story of how the global *Parks on the Air* (POTA) challenge has become my go-to gamified learning platform for pushing my HF learning forward. Despite the social distance restrictions, a daily dose of POTA gets me out and on the air, making contacts and discovering the next skill-building gap I need to tackle. Trust me, if I can figure this all out, then probably you can too.

The first key insight here is that every time I was really stumped I reached out to the NCRC community and every single time a club member stepped up to answer endless questions or help me through fundamental hurdles. (Like Mike, AC1DV, Martin patiently helping me—a stranger—tune my misbehaving HamStick antenna for almost an hour before my first activation.) So don't hesitate to put yourself out there and ask for help. The depth of the NCRC "Elmer" community is your first secret to finding HF success.

My first ah-ha moment getting started was simply showing up at a POTA activation and checking out everyone's gear. I quickly decided that Bob, WB4SON, Beatty's minimal rig inside a car could work for me with the coming winter. Three components, includ-

ing a HamStick antenna on a car roof, and boom! -- my equipment problem would be solved enough for me to get started.



Bob's front seat station.

Bob went on to put together an outstanding slide deck on basic equipment options for getting started on POTA and presented this introduction for the NCRC November monthly meeting. If you haven't seen Bob WB4SON's excellent introduction to POTA, do check it out here:

<https://w1sye.org/wp-content/uploads/2020/11/POTA-2020.pdf>

His presentation was the resource I turned to endlessly as I worked to make the leap from watching an activation to being able to participate myself.

One thing I think more experienced hams might underestimate is just how much becoming a ham requires mentoring and apprenticeship about, well, everything. There were/are just so many learn-

ing gaps between my General Class ham exam/book learning proficiency and any kind of practical, hands-on preparedness to be successful in the field. I didn't know what a PowerPole connector was, to take one small example. That is, getting to be a POTA player requires not just gathering the right list of component hardware to buy, but also what connectors you will also need, etc. Oh! And then, how to put it all together in a way that works and will allow you to unleash radio as fun!

I could never have gotten so far so quickly without so many NCRC members stepping up to answer my constant questions as I aggressively pushed to get everything in place before another possible Covid lockdown. For POTA help, special thanks to Bob Beatty, WB4SON who gets the patience award, for sure. Thanks to the whole POTA community who welcomed me as I showed up and plunged ahead in learning, humbly, but with purpose.

For my equipment, I drove 90 minutes to the Ham Radio Outlet in Salem, NH and bought everything I needed in conversation with the team there, led by Barry. This was obviously an investment I had thought long about, but for many reasons I am committed to continuing to learn as much as possible about radio this winter. (As a Career Coach and grit/resilience person, I think everyone can benefit from having learning goals to reach toward over this outlier winter; POTA is one of mine.) *Continued page 6.*

For my first activation, Bob Beatty and Mike Martin showed up at Beavertail to help me. It all felt pretty overwhelming, I am willing to admit. How was I going to pull all these pieces together and actually make my first activation happen with a radio I'd barely used? It didn't help my confidence that my 20 Meter HamStick antenna just wasn't cooperating getting tuned. But you know what? I'd done what homework I could and my mentors were endlessly patient, encouraging, and supportive. Together, we got each problem solved to make the activation happen. It was a milestone for me, and I could never have done it without being a member of NCRC. Thank you all.

Since then, as you might expect, every POTA activation done on my own has gotten easier and easier—although the learning curve continues. For example, I can now more easily capture the call signs as they rapidly pile in. Also, I understand the “R-S-T” signals report part of the contact etiquette. And the lingo, including the common use of “QSL”. I was fortunate to make a Park-to-Park contact with Newfoundland on the same day I talked to hams from the Azores off North Africa, to Saskatchewan in western Canada, and everywhere in between. The POTA email thread ended up helping me identify that Canadian Park and the NCRC POTA network even put me in contact with the emeritus professor who had been working the historic site up there.

At the present moment logging is my latest hurdle. How to

do logging in a way that works for me and can easily generate the needed ADIF file? Still working on that since there is no great Android app. Other basic skills are still coming together, too. For example, I still haven't mastered doing an activation and being mindful enough to write down the exact time of each contact. But I'm getting there. (The rules allow time to be off by 15 minutes.) Practice does make POTA easier and my skill building is growing while I do nothing more complicated than cozily sit in my car looking at the gorgeous Newport-area seascape and talk to hams all over the world. (A ham in the Everglades described the flamingos he was watching, while we in RI can rave about the natural landscape and history of this place we call home.)

So, if you are excited to get started on HF but are hesitant about the ham shack-home antenna learning curve, then just go for a \$22 Mobile HamStick antenna option. Add in a small 15 Amp-Hour Bioenno rechargeable battery, and the 100-watt HF radio that seems right for you and you are good to go. The global radio community on air and our Newport County Radio Club has been non-stop patient, helpful, and encouraging. I hope my positive experience will inspire others on the fence to get out into our remarkably beautiful natural landscape here in South County, even in winter, and with lots of new skills to learn, get started with POTA from the base camp of a car and a HamStick antenna. By Spring 2021 you will be ready

to be truly “in the field”, tackling whole new types of antennas. Benefiting from the fruits of your work this winter.

Maybe we'll connect as Park to Park contacts in RI? I'll be looking out. Nancy KC1NEK.

What is a HamStick?



HamSticks, similar antennas, and other short vertical antennas are particularly good for mobile and portable stations. A full quarter wavelength vertical for 20 meters is about 17 feet tall, but a 20 meter HamStick is about four feet long with an adjustable two-foot whip on top. To make this work, a conductor is wound around the main body forming an inductor.

Although resonant, shortening a vertical reduces radiation efficiency. The shorter a vertical is for its wavelength, the more this inefficiency increases. An 80 meter hamstick is about as efficient as a salami.

What is a Bioenno Battery?

Bioenno is a manufacturer of Lithium Iron Phosphate batteries. For capacity, performance, and long life, LiFePO4 batteries are the first choice for mobile/portable operating.



www.bioennopower.com