



NVARC *Signal*



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Next Meeting

This month's meeting will be held 7:30 PM on September 21, 2026 at the Pepperell Community Center at 4 Hollis Street in Pepperell Massachusetts.

Our guest speaker will be Steve NA1T. Steve will be demonstrating his EMCOMM trailer and emergency gear.

Weekly 2-meter Net

The NVARC Information Net is held Monday nights at 7:30PM local time on the 2m N1MNX repeater – 147.345MHz+100pL. An informal net on 28.400(+/-) may follow the VHF net.



<https://xkcd.com/3293>

President's Corner

Les N1SV

I hope everyone had a good time at the HamXposition in Marlboro in August. Friday afternoon I was able to sit in on one of the Club Track talks that Bruce K1BG sponsored. Bruce does a great job of arranging this series of short presentations that showcase what other clubs are doing. Thanks to Jim N8VIM for filming all the presentations that are now available on our [NVARC YouTube](#) channel. Friday night I enjoyed attending the Contester / DXer dinner, something I haven't done in a long time. The keynote speaker was Max Freedman N4ML who talked about the recent 3Y0K Bouvet Island DXpedition he was on. Thanks to Bruce for arranging the NVARC tables for both the Friday and Saturday dinners. It was great to spend time with some of our members in a different setting.

Saturday I was sequestered in the commercial exhibits room most of the day checking QSL cards for DXCC and other awards. I did get a quick look at the flea market early and then popped in on the Yankee Clipper Contest Club (YCCC) meeting in the afternoon. Thanks to all who stopped by the W1 QSL Bureau booth and said Hi. Saturday night I attended the Grand Banquet. The keynote speaker was Katie Campbell KE8LQR. Katie spoke about her experiences including how she was licensed at age 10, attended an exchange program in Germany, and became a member of the Bavarian Contest club. She is also a public relations manager for Youth On The Air (YOTA). I was particularly impressed by her comments on removing the stigma for youth getting interested in amateur radio and what some of the Old Guard can do to help. I found this young lady and her presentation very inspiring.



President's Corner (cont'd)

Les N1SV

We typically don't have meetings in July and August but made an exception this year for two workshops geared toward some of our newer licensees. In July, Bruce K1BG put on a great workshop on basic station design that was very well attended. And in July, Bruce K1BG, John K1JEB, and I put on an antenna workshop where members were able to build some basic antennas like ground planes, J-poles, and dipoles. Again, this was very well attended, and I hope it was useful. Thanks to all who participated in both of these workshops.

Don N1NWE, our Vice President, has been on overdrive lining up guest speakers for upcoming meetings. This month Steve NA1T will be talking about Emergency Communications and will have his EMCOMM trailer in the parking lot of the Community Center. One of the key elements of the amateur radio service is emergency communications. Steve's presentation will set the paradigm on how it all works.

In October Don has lined up Mark Noe KE1IU who will be speaking remotely via ZOOM on Pico balloons. Mark is a chemist by trade, makes his own Hydrogen, and has successfully launched Pico balloons. Pico Balloons have been a hot topic with our members this summer as Jim AB1WQ and Don N1NWE have launched balloons with mixed success. I'm looking forward to learning more about this interesting subject. Remember that during the fall it can be hard to find parking at the Pepperell Community Center with the youth sports programs going on, so don't forget that the parking lot of the insurance company across the street is a good alternative.

Treasurer's Report

Ralph KD1SM

Income for August was \$27.50 in membership fees. Expenses were \$0.82 in PayPal fees leaving a net income of \$26.68 for the month.

Current balances:

General fund	\$3,613.17
Community fund	\$7,243.25

As of 3 September we have 84 members who are current with their dues. NVARC dues are still a bargain at just \$15/year or \$20/year for an entire family.

Welcome to new member Lee Duckett K3LLD of Townsend. Lee listed his interest as being emergency communications.

To pay membership dues via PayPal see the instructions in <https://n1nc.org/membership/>

If you are in doubt about your dues status please send me (Ralph) an email and I will be happy to answer your questions.

If you are joining ARRL or renewing your membership please note ARRL's instructions to enter your NVARC membership information. As a Special Service Club, the ARRL expects a majority of Club members to also be ARRL members and will send a portion of your new or renewal ARRL membership fee back to the Club. Contact me (Ralph) for further information if you need it.



Board Meeting Report Don N1NWE

Active Participants: Les N1SV, Bruce K1BG, John KK1X, Jim N8VIM, Don N1NWE

Repeater Shack Siding Project: All agreed that full vinyl siding is more practical than siding only one side. Total cost estimated to be from \$600 to \$800.

Guest Speaker Program: Don presented the club's speaker schedule from September through spring. Jim and Don to work out the audio component for Zoom type presentations.

POTA Event Schedule And Review: Les, John, and Bruce agreed to shift regular POTA events to the second Saturday of each month.

Membership stands at 84 members.

Jim N8VIM uploaded Ham Expo club-track presentations to YouTube. It will be a month or so for the museum trip footage to be prepared.

Bruce is developing a better method of managing membership-related data.

Don proposed using Pepperell's News Flash to announce club activities to town residents.

The station design and antenna build workshops were very popular, leading to consensus that perhaps workshops are worthwhile.

Les asked for help on the Monday night nets as K1JEB is unavailable for a few weeks. Bruce volunteered for the 9/7 net.

One of the sites I encourage new hams to work with is QRZ.com. There are features I really like – and some that I’m not so fond of. But the bottom line is: It’s worth using.

Why? I think QRZ.com is the way Facebook was back when it started. A way to learn something about the person you had a contact with and get in touch with them if you have a reason to do so. QRZ.com downloads the latest changes and additions to the FCC ULS database on a daily basis and incorporates the data into its database. Individual amateur radio licensees can then add additional information, pictures, email addresses, etc, to their profile to personalize the page.

For instance, go to <https://www.qrz.com/db/K1BG> to see my QRZ.com page. The first thing you see is my mailing address, which is great for QSLing. This, BTW, comes from the FCC database, but you can edit it if you like. I like getting QSL cards, and this makes addressing them easier.

Next is an email address. Often when having a ragchew, there is additional information that I would like to convey to the other ham. Having an email address makes that easy. IF YOU DO NOTHING ELSE, you should put an email address here so that people can reach you.

Above my callsign and to the left is the “Search” window. Next to an email address, I find this the most useful feature on QRZ.com. I can search by name; I can search by zip code (put in the zip code and click the “by callsign” window and pick “by Name/Address” and click “Search”). The search is very flexible, the information very valuable.

The value of QRZ

Bruce K1BG

Under the “Biography” tab you will see personalized information. It allows other people to get a feel for what interests me. Like any personal page, you can put pretty much anything you like here. Next to that is the “Detail” tab. This will be filled in by QRZ.com unless you update it. For instance, the “Geo Source” data will be generic based on the zip code of the town you live in unless you edit your location information. If you zoom in on the map to the right, you will see my exact location. The marker is smack dab on my operating desk!

Some hams use the free logging program on QRZ.com. I used to, but I removed it. I found it difficult to get the data off of QRZ.com when I wanted to use it elsewhere. You may feel different. QRZ.com has an automatic awards program that people participate in. I avoid it because there is no verification process. QRZ.com has great database features, an amateur News page, forums (which I read but avoid comments) a “Swapmeet” page and lots of other interesting things to tinker with. 99% of what I use QRZ.com for is on the opening page. I encourage you to add your email address and edit your information.



Saturday Breakfast at Tiny's in Ayer continues to be popular.

(The empty chair is me – Ed.)

Ham Radio Linux to the Rescue

Adam KC1RVK

Ever since I started using digital modes, I have struggled with the finickiness of Windows audio settings. To be fair, my laptop was doing double duty: conference calls, logging, WSJT-X, SSTV and more. But having to constantly chase audio input and output settings was getting old.

You could guess that my interest in a dedicated machine for Amateur Radio software was at an all-time high when I attended Andy's Ham Radio Linux (AHRL) session at North East HamExpo. I have been a user of Linux (and other xNUX OS variants) for a long time and thought this might be my ticket. Andy KB1OIQ did a great job explaining what AHRL is and how to download and install it. In short, Andy has been curating various Linux-based software Amateur Radio related software packages for years and puts them together into one package for easy installation. It includes more than anyone would need including multiple options for digital modes, logging, maps, propagation, CW, satellite tracking, rig control antenna calculations, and much more. My rough count yielded around 50 applications and utilities in total! It can be overwhelming looking at the menu options.

Needless to say, I walked out of that session a believer and soon found myself at the flea market looking for a suitable computer for my shack. I found a Windows 10-era Lenovo ThinkCentre mini desktop PC with 8GB of RAM and an older Intel Core i5 processor for the no-brainer price of \$40. I added an SSD I had lying around and a \$25 USB Wi-Fi dongle, and was off to the races. AHRL doesn't require much CPU or RAM, so an older, modest machine is more than up to the job. You don't need a \$1,000 workstation for the shack. With a little luck, you could put together a perfectly capable dedicated ham-radio computer for around \$100.

Ham Radio Linux to the Rescue

Adam KC1RVK

On day one I planned to make this a headless machine, which means it would not have a dedicated monitor, keyboard or mouse (except for installation of course). Instead, I would connect to it using Remote Desktop from my main Windows machine. Less clutter in the shack that way.

The real goal was simplicity. I wanted a computer whose only job was Amateur Radio. No Teams meetings, no Zoom calls, no Windows notifications, no other applications fighting over audio devices. Just a dedicated machine for the shack.

The first decision I had to make was the Linux distribution. AHRL is not a Linux distribution anymore; it's a curated collection of Amateur Radio software that you install on a supported Linux distribution. Not everyone likes to use the same Linux distribution, so it was a smart move on Andy's part to decouple the distribution from his package. My goal was to find a lightweight variant that would run happily in 8GB of RAM on this older Core i5. Andy has a list of supported (tested/known to work) list of Linux variants on his SourceForge page. Be sure to check that before picking your Linux flavor. Xubuntu (bonus points if you can pronounce that) is a great distribution for that goal and is what I chose. Other Linux flavors may work, but that is not guaranteed by Andy.

Once Xubuntu was installed, it was time to download and install AHRL. Andy could not have made this any easier. Once again, check his readme file before proceeding. Download the package, untar it, run the install script. Super simple and he gives you all the commands you need. The script does take time to run as some of the software packages are compiled during the process. Let it sit, grab a coffee, take a nap, work some DX and it will be done.

Ham Radio Linux to the Rescue

Adam KC1RVK

That's when the fun begins. If you have not used Linux before, this will be a learning experience. The software is a mishmash of things written by different people over the years. Andy did a great job curating, but some of the software is more polished than others. That is, of course, the nature of open-source software. Be ready to experiment, learn and tinker to get the system set up the way you need.

Your best friend in this process? AI. Yes, there, I said it. AI helped me through some issues along the way. Pick your favorite flavor, I used ChatGPT. If you run into an issue with one of the software packages, it's more than likely that someone else has as well and their experience and solution was documented in some forum or article somewhere. AI is great at finding that and bringing it to you. If you prefer to do a traditional search to find the answer, feel free, but AI will speed that process up. Take a screenshot, explain the problem, and voila, you have something to try, or an outright solution presented to you.

As an example, I wanted to use CQRLOG for logging and it required a database to be set up. No documentation given, it just would not start without the database. AI walked me through it in no time.

The included WSJT-X (FT8, FT4, etc.) works perfectly and is basically the same as the Windows version with one exception; the audio in and out ports were much easier to find in Linux. I had it working with minimal set up. QSSTV is another excellent application that worked very well and almost required no configuration to start receiving SSTV transmissions. The audio headaches that prompted this whole project disappeared. With a dedicated machine and a consistent audio configuration, I wasn't constantly switching Windows audio devices depending on what I was doing. Getting these two applications running proved that this was the right decision.

Ham Radio Linux to the Rescue

Adam KC1RVK

Andy's Ham Radio Linux is a great option for anyone looking for a one-stop shop for any ham radio tool you could ever think of. It's a fun way to find things you never thought you needed and a great learning experience.

My AHRL Shack PC

- Lenovo ThinkCentre Mini PC (Intel Core i5, 8 GB RAM, Wi-Fi)
- Xubuntu
- AHRL
- Headless/remote access
- WSJT-X
- CQRLOG
- QSSTV
- ...and approximately 47 other things I haven't figured out yet.

It is interfacing with an IC-7300, but it should work with just about any modern Transceiver.

Have Fun and 73!



The \$40 computer :)

qsodate	time_on	callsign	freq	mode	rst_s	rst_r	name
2026-09-01	22:46	NG9B	14.2580	SSB	57	55	Michael

1.8	3.5	7	10.1	14	18	21	24	28	50	144	430
SSB											
CW											
DIGI											

CORLOG logging screen

Last month I presented an article about a 71 foot (22 m) so-called "random" wire antenna set up as a simple vertical. A 9:1 unun was used at a feedpoint transformer to get a relatively high impedance long wire to roughly 50 ohms to make the radio happy.

That antenna had a more-or-less circular pattern of radials, and had what I termed decent performance. It tuned and transmitted on 6m through 40m, including the WARC bands.

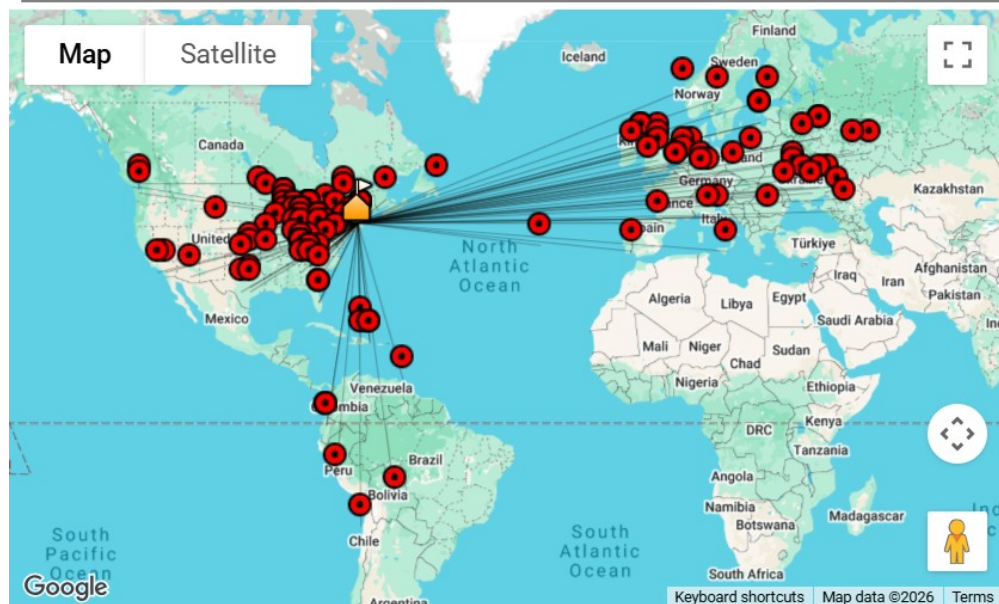
I do a lot of portable operations - almost exclusively POTA activations, so quick and easy setup weighs heavily in my mind. While setting out three or four clusters of radial wires isn't exactly traumatic, I like the way my End Fed Half Wave antenna works using only the feedline as a counterpoise. Why does this only work for EFHW antennas? The physics should be similar, right? So I tested it, removing the radial fields and simply using 100 feet (30 m) of feedline. There's already a choke in the shack between the antenna switch and the radio switch, so I was off to the races.

As long as I was doing testing on variations of this antenna, I also reconfigured it as an inverted-V, EFHW style, with the center of the wire supported by a line, and the ends tied off close to ground. The radial field was roughly semi-circular, as the feedpoint abutted the neighbor's yard. I don't think that matters as much as the roughly NE-SW orientation of the antenna. The center of the antenna was at about 25 feet (8 m).

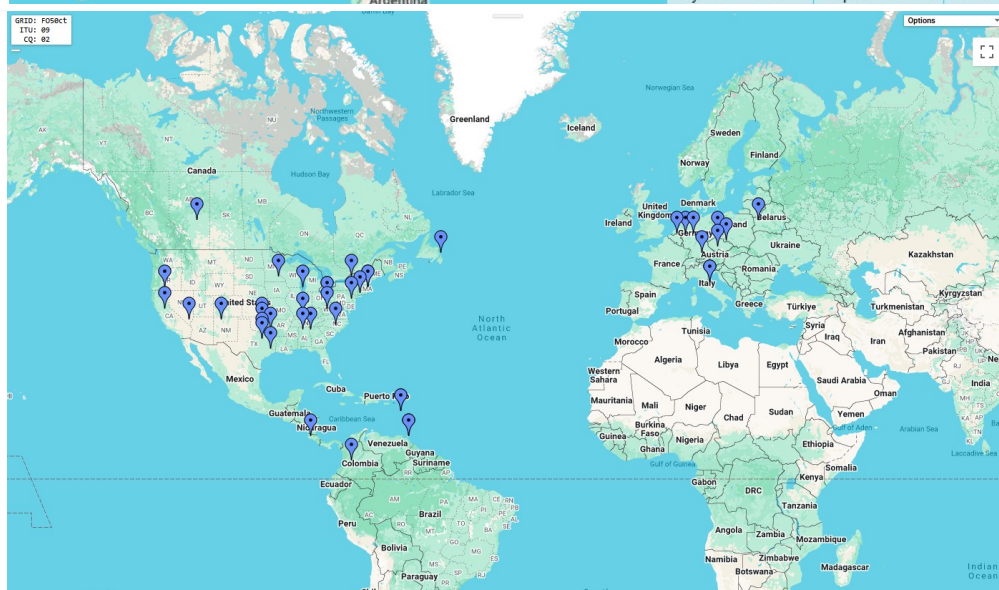
"Testing" of both antennas followed my stock procedure of calling CQ and answering those folks that can hear me. The thinking there is that I'm not tempted to pick strong signals and surmise that the antenna works gangbusters. I diverge from this path if I see POTA or SOTA operators looking for contacts. I try to help them out.

Antenna Corner

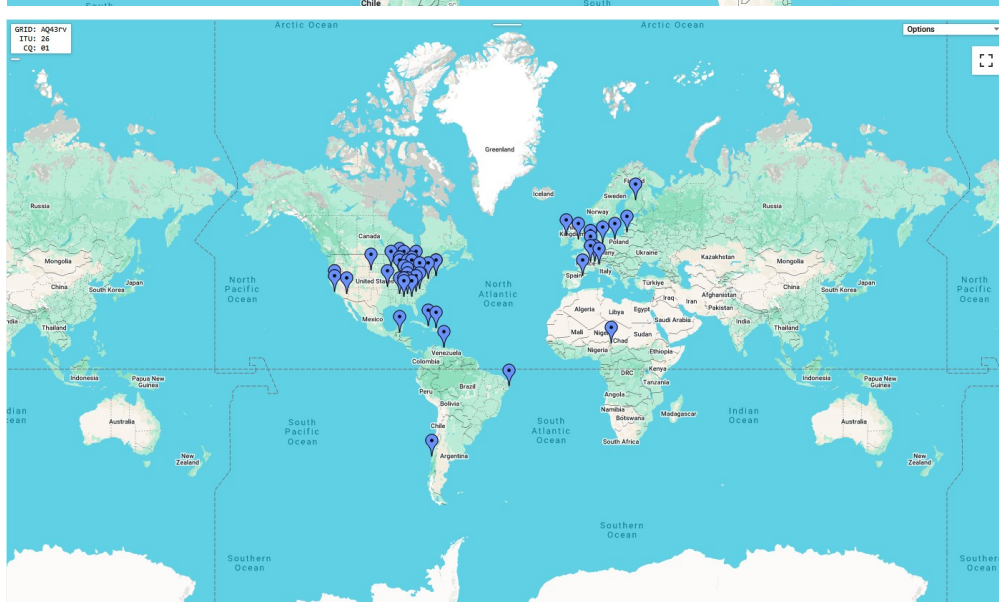
John KK1X



These three pictures summarize the radiation patterns of the three antenna variations:



Top: 71' random vertical, circular radial field



Center: 71' random vertical, feed line as counterpoise

Bottom: 71' random length inverted V

Antenna Corner

John KK1X

The screen grabs show the output of an ADIF to map program to be found at www.QSOMap.com. It generates a map of all contacts in a given ADIF file, mapping only those spots with grid square provided. Logging contained information about which antenna was under test, so I was able to separate specific log entries to compare the antennas. I separated the contacts by antenna configuration, then generated maps.

There are clear differences in the number of contacts in each of the test runs, due more to my available time to test than any other factor, I suspect.

But the general pattern of radiation is quite similar in all configurations.

It would seem that the feedline-only counterpoise is far less effective than one might have hoped, though it's still a reasonable choice for portable work. Inverted V with no radials? Perhaps we'll see next month.

73,
John KK1X

Working POTA

John KK1X

August wasn't very busy for me in the POTA sense. Due to other events and commitments, I only had time for seven activations – three at Pearl Hill State Park (W Townsend), two at Dunn State Park (Gardner), and two at High Ridge Wildlife Management Area (Gardner). I managed to achieve the minimum (10 QSOs) for each activation, but managed only 116 contacts altogether.

I made up for my POTA inactivity by testing antennas at home!

Wireless & Steam Museum Les N1SV

At this year's HamXposition, the booth across from where I was checking QSL cards was that of the New England Wireless & Steam Museum. This museum has a large collection of pre-1950s wireless equipment as well as steam engines primarily from 1880 to 1930. The museum is located in East Greenwich, RI and is open Saturdays through October 24th as well as by appointment. The museum hosts a number of special events during the year see their website for more information <https://newsm.org/>.



New England Wireless & Steam Museum booth at HamXposition 2026

Nashoba Valley Amateur Radio Club
PO Box 900
Pepperell MA 01463-0900
<https://n1nc.org>

President: Les Peters N1SV
Vice President: Don Campbell N1NWE
Secretary: John Bielefeld K1JEB
Treasurer: Ralph Swick KD1SM

Board Members:
Jim Hein N8VIM (2024-2027)
Steve Davidson NA1T (2025-2028)
John Griswold KK1X (2024-2029)

N1NC Trustee: Bruce Blain K1BG

Join NVARC! Annual dues are
\$15 individual, \$20 family

Contact us on the N1MNX repeater:
442.900(+) PL100
147.345(+) PL100
53.890(-) PL100

This newsletter is published monthly. Submissions,
corrections, and inquiries should be sent to

editor@n1nc.org
to reach the newsletter editor.

Editor: John Griswold KK1X
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