



# SIGNAL

A club since 1992



Since 1993



Since 1996

de N1NC

January 2021

Volume 30 Number 1

## In this Issue

- Bruce, K1BG, offers tips on being successful when working pileups ..... 2
- Why is the N1NC.ORG mail system "SPAM-Free"? ..... 2
- For Sale: An inventory of available Radio items from an SK's estate ..... 2
- Bruce, K1BG reports on the results of his Licensing Classes ..... 3
- Check out the Monday 2m Net! ..... 3

## NVARC Monthly Meetings

NVARC general meetings are scheduled for the third Thursday of the month at 2430 UTC (7:30pm, Eastern Time).

Non-members who are interested in attending may send an email to [meetings@n1nc.org](mailto:meetings@n1nc.org) requesting the teleconference details.

NVARC thanks **Medtronic, Inc** for providing the teleconferencing services under their employee volunteer support program for non-profit organizations.

## Last Month's Meeting

The December meeting's Main Event was the annual "NVARC Homebrew Night".

Several members displayed their latest creations.

## This Month's Meeting

The January meeting's agenda is up to YOU, since the featured event is to be our annual "Short Subjects Night", wherein members are encouraged to share a short presentation on a subject of interest.

## Next Month's Meeting

The February meeting will feature Joe, W3NOZ, speaking on radar and stealth technologies.

## From the Prez

"greetings youtubers" - oh wait, that is a different one haha.

Boy-Howdy, I never expected to be the Prez of the Zoom Radio club! Sadly, we are obviously still in this pandemic mire.

Fortunately, Radio is an excellent pastime for socially isolating and we thankfully have access to Zoom via N8VIM/Medtronic for the meetings!

Our annual Home Brew night was excellent, and thank you for everyone that shared something and came to listen. We had a really great time - so much so that maybe if we need a meeting topic we should think about doing another one. Send me a note if you agree!

Upcoming this month is the short topics meeting. This is another of my favorite ones, I encourage people to put something together from a 2 minute how to to a 30 minute tutorial would be great. There is a lot of know how out there, this will be a great time to share, everyone will be excited to hear from you all.

The 18650 Battery challenge is off and running with a huge number of members!! I look forward to seeing what everyone comes up with over the next 6 months. Remember, that field day is just that far away - who knows if when or how we will do anything, but keep your CW sharp!

On another note, quite a few members are doing the breakfast zoom, look for the link each week.

There are still a few of us that still meet at Tiny's every Saturday at earlier or later than 0800 including myself for anyone so inclined.

Remember to check to see if your dues are due, because they may be due! Do check in to the 2M net on Monday night also.

*Thank you all and 73*

*de Jessica, WU3C*

### Tips on being Successful in Pileups

*de Bruce, K1BG*

This subject is one of my favorites. Bob, W1XP, summed it up nicely during one of our breakfast meetings. "The secret to being successful in a pile up", Bob stated, "is to understand the operating habits of the station you are calling!" I could not have answered this any better.

Responding to a CQ on a quiet band is easy – just call the station you are trying to reach on his or her frequency.

Popular DX-peditions or operators from rare countries (I'll refer to them both as just "DX" for this article) will almost ALWAYS operate split. Why? Because unless the DX station is VERY strong, chances are the local participants in a pile up will be much louder.

The DX will be covered up by these locals who are still calling when the DX station calls another station. Operating split allows people in the pileup to clearly hear the DX station, and operating split allows the DX station to "spread out" the calling stations, again, making it easier for him or her to hear one of those stations calling.

Stations in the pileup will be given a frequency range where the DX station listens. The DX might say "up 2" or "listening 5 to 10 up" or "listening 14200 to 14220", or something similar. By pure luck you may actually work the DX by just randomly calling, but a good DXer or contester will LISTEN, LISTEN, LISTEN, first.

What are they listening for?

First, listen for the station currently being worked. Can you then work the DX on that frequency? Or does the DX move to a higher or lower frequency (in other words, are they tuning up or down)?

Do they move up to the top of the range where they listen, and then start at the bottom again or do they just start tuning down band? Some DX will say listening 5 to 10 up, and ONLY listen 5 or 10 up.

Rather than work big pileups, some DX prefer to part their callers by call district.

You may come across a DX station who says "Listening for W1's only!", which means if you are not in the US 1 area, do not call!

Wait until the DX gets to YOUR call district. Sometimes the DX does not call districts in order, so you never know when you will be called. You will just have to wait!

Be courteous: do not call out of turn, and don't take either waiting or not being called personally. Hopefully, you'll get another chance!

By listening, listening, and listening some more you will quickly become familiarized with the operating habits of the DX station you are calling. It will make you far more successful in cracking pileups.

BTW, books have been written on this subject. The best one I have ever read is "The Complete DX'er" by Bob Locher, W9KNI<sup>1</sup>. If you can find one at a hamfest or flea market, snap it up. You'll learn a lot.

*-de Bruce, K1BG*

### Why is N1NC.org SPAM-Free?

*de Ralph, KD1SM*

If you've had your email address for more than a few months then you are likely getting spam and phishing emails directly to it.

The NVARC Members email reflector address is no different. It had been getting one or two spam emails (e.g. pharmaceuticals for sale) a month until several months ago. Now it gets one, two, sometimes more \_per day\_.

So why don't you see those unwanted emails from the reflector?

The reflector only passes through emails that are from addresses that are subscribed to the list. The rest get delivered to me for examination. If an email from a non-subscriber is obviously related to Amateur Radio then I let the reflector send it to the list, otherwise I delete it.

The big increase in spam appeared around the time that <https://www.facebook.com/NVARC/> was created. I don't know that there is a direct connection but spammers harvest email addresses from the Web so the easier it is to find an address the faster it will get on spammers' lists. Now you know why the NVARC list is spam-free.

*-de Ralph KD1SM*

### For Sale: SK Estate Items

[Ed: Prices are estimates: make an offer.]

BC 348 Receivers	\$400.00 each
Johnson Viking Valiant	\$650.00
Heathkit DX100 Transmitter	?

<sup>1</sup> <https://www.hamradio.com/detail.cfm?pid=H0-006806>

ME 165 GSWR/PWR METER	\$200.00
National ANURM 215	?
R-390 Receiver with manual	\$950.00
Heathkit AT-1 Transmitter	\$175.00
Heathkit Dip Meter HD 1250	\$85.00
TV-7U Tube Tester	\$475.00
VS 1500A Barker Williamson	
Antenna Tuner	\$125.00
Heathkit Audio Generator	\$50.00
TS 382 D/U Audio Oscillator	\$100.00
8012A Digital Multimeter	\$75.00
Dual Power Supply	

Many components, tubes, pots, switches  
 Many Manuals: eEmail your needs.

If you are interested in any item(s), Contact Charlie, AB1ZN, at [vintagem5@hotmail.com](mailto:vintagem5@hotmail.com) with your offer. Charlie will forward your offer to the family for consideration.

### Amateur Radio Class Results

It's been over 20 years since NVARC last conducted license classes. Recently, I held technician level classes with the help of Skip, K1NKR. We had 8 sessions over a 4 week period.

Of the 7 students who started, 4 finished. These are:

- Rachel Schmoyer, KC1OHY of Harvard, MA,
- Matt Denaro, KC1OHA of Nashua,
- Gio Girasoli, KC1OIR of Bolton CT,
- Asher Mirock KD9RDR of Bloomington, IL.

Both Asher and Gio are 12 years old and are previous graduates of my CW Academy beginners Morse code class. Both of them are excited about operating on HF frequencies.

We welcome all of them to the fantastic world of amateur radio.

I ran these classes to learn how to conduct a class. It was truly a learning experience! I plan on having more classes in 2021, both using Zoom and in person training (once the Covid restrictions are lifted). If you know of anyone interested in a class, please let me know.

Additionally, if you are interested in volunteering (it's easy to do!), please let me know.

-de Bruce, K1BG

### Monday 2m NVARC Information Net

The NVARC Information Net is held Monday nights at 7:30pm, local time on the 2m Pepperell repeater,

N1MNX. 147.345MHz, PL: +100. George, KB1HFT, has passed the NCS baton to Charlie, AB1ZN.

The net is formatted as a formal/informal roundtable discussion wherein folks share, inquire, or just Rag-Chew.

Several non-members have recently joined in as well.

So, if your rig can hit the repeater, please join the discussions!

Also, joining in the Net, or just signing in, will help in assuring that your equipment is in working order.

### From the Shack

de George, KB1HFT

My 20m Phaser<sup>2</sup> VFO-hack project has stalled just at the point where I would tie the software & UI daughter board into the Phaser to replace the Phaser's native CPU. I dunno, some kind of ennui, I suppose. I'll get over it, as it is to be a mainstay in my Battery Challenge QSOs!

My attention has been drawn to another kit, and I realize that I have been bitten by the Kit Building Bug. <gasp!> Another rig for the Battery Challenge!

I've obtained QRP Labs', "QCX+ QRP CW transceiver" kit, and am in the early stages of assembly. The XCVR is rated at up to 5w out via a class E final, and has a "Tayloe Quadrature Product Detector<sup>3</sup>", which is a neat, very selective, detector in the receive chain.

The very first thing that I do with all kits is a parts inventory.

It can be painful to not just get to the soldering, but I find it worthwhile in the end to take the time in the beginning to assure that all the parts are present.

First hurdle is to find a large horizontal surface to lay out the parts, parts list, and test equipment. My bench will not do, since the clutter would easily hide small parts, plus the clear area is barely big enough for typing this newsletter.

I have successfully negotiated (temporary) use of the dining room table for the parts inventory. <YaaY!>

Some kits, such as this one, provide some of their parts loose and unmarked other than resistor color bands, or tiny (as in tiny) capacitor codes, etc.

<sup>2</sup> Midnight Design Solutions:

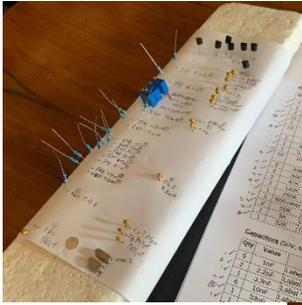
<https://www.midnightdesignsolutions.com/phaser/>

<sup>3</sup> [http://norcalgrp.org/files/Tayloe\\_mixer\\_x3a.pdf](http://norcalgrp.org/files/Tayloe_mixer_x3a.pdf)

So, with the help of a currently unused telescope eyepiece<sup>4</sup> to read capacitor codes, and an ohmmeter to sort resistors, which is much faster than trying to decipher the tiny color bands, I waded through the parts list as follows:

After I have identified a loose component, I "file" it on an invention of mine: a piece of Styrofoam™ wrapped with a sheet of paper and taped.

After I have ID-ed a part, I punch a hole with a pencil point in the paper-covering the Styrofoam™, mark the hole with the component's part number (R4, C12, etc.), and value, stick the component in the hole, and check it off on the parts list.



hole with the component's part number (R4, C12, etc.), and value, stick the component in the hole, and check it off on the parts list.



This process has proven to be very helpful. When I am in the midst of assembly, I can very quickly find the next part to solder or mount.

-de George, KB1HFT

### Board Meeting 7JAN2020

#### Attendees:

John KK1X,	Skip K1NKR,
Jim AB1WQ,	Bruce K1BG,
George KB1HFT,	Ralph KD1SM,
Peter N1ZRG,	Jessica WU3C

- Dennis K1LGQ's son passed away this week.
- 18650 Challenge - 6 entries. Spreadsheet in place for scoring.
- New member Sean Pearson of Townsend.
- George reported on some ongoing kit projects.
- Bruce has a decent 3D paddle kit for a kitting project.
- George has increased Signal circulation.
- Owen planning to run a radio program for BSA this summer.
- Bruce has a lot of educational stuff going on - CW, licensing.

- Jim, AB1WQ, checking for Pepperell testing/class sites.
- Monday night 2m Net presenting low attendance. George resigns as NCS.

- January - Short Subjects
- February - W3NOZ Brint Ferguson - radar and stealth
- March - Skip - WA1JXR to speak on Nano VNA
- April - W3LPL available - topic TBD
- Open offer for presentation from W3LPL
- Upcoming Extra class - Bruce

-de John, KK1X

### Treasurer's Report

NVARC received no income in December and had no expenses.

Current balances:

General fund	\$2,575.17
Community fund	\$5,948.25

Sean Pearson of Townsend has joined NVARC. Sean plans to get his license at a one-day license class at the end of the month. Sean lists his (other) interests as Legos, cars, and archery. Welcome Sean!

As of 7January we have 43 members who are current with their dues and **23 renewals outstanding**. Thank you to those of you who mail your renewals or use PayPal. Renewal months are in the member list on [www.n1nc.org](http://www.n1nc.org) in the Member's area.

To pay membership dues via PayPal see the instructions in the same Members area.

If you are joining ARRL or renewing your membership please consider letting Ralph send in the paperwork for you. The Club will buy the stamp and will get a commission from ARRL. As a Special Service Club, the ARRL expects a majority of Club members to also be ARRL members. Contact Ralph for further information if you need it.

de Ralph KD1SM

<sup>4</sup> Meade 4000 Super Plössl 32mm

## Calendar

# W1AW Schedule

PAC	MTN	CENT	EAST	UTC	MON	TUE	WED	THU	FRI
6 AM	7 AM	8 AM	9 AM	1400		FAST CODE	SLOW CODE	FAST CODE	SLOW CODE
7 AM-1 PM	8 AM-2 PM	9 AM-3 PM	10 AM-4 PM	1500-1700 1800-2045	VISITING OPERATOR TIME (12 PM-1 PM CLOSED FOR LUNCH)				
1 PM	2 PM	3 PM	4 PM	2100	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE
2 PM	3 PM	4 PM	5 PM	2200	CODE BULLETIN				
3 PM	4 PM	5 PM	6 PM	2300	DIGITAL BULLETIN				
4 PM	5 PM	6 PM	7 PM	0000	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE
5 PM	6 PM	7 PM	8 PM	0100	CODE BULLETIN				
6 PM	7 PM	8 PM	9 PM	0200	DIGITAL BULLETIN				
6 <sup>45</sup> PM	7 <sup>45</sup> PM	8 <sup>45</sup> PM	9 <sup>45</sup> PM	0245	VOICE BULLETIN				
7 PM	8 PM	9 PM	10 PM	0300	FAST CODE	SLOW CODE	FAST CODE	SLOW CODE	FAST CODE
8 PM	9 PM	10 PM	11 PM	0400	CODE BULLETIN				

W1AW's schedule is at the same local time throughout the year. From the second Sunday in March to the first Sunday in November, UTC = Eastern US time + 4 hours. For the rest of the year, UTC = Eastern US time + 5 hours.

♦ Morse code transmissions: Frequencies are 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, and 147.555 MHz.

Slow Code = practice sent at 5, 7½, 10, 13, and 15 WPM.

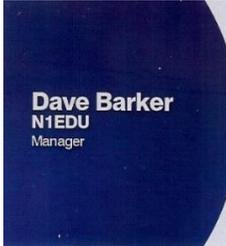
Fast Code = practice sent at 35, 30, 25, 20, 15, 13, and 10 WPM.

Code bulletins are sent at 18 WPM.

## Sponsors



**Electronics Plus**  
480 King Street  
Littleton, MA. 01460  
fpurcell@electronicsplus.com  
Hours: M-F 9-6, Sat. 9-5  
(978) 486-3375



**Dave Barker**  
N1EDU  
Manager

**HAM RADIO OUTLET**  
224 N Broadway STE D12  
Salem, NH 03079  
Phone: 603-898-3750  
Toll Free: 800-444-0047  
Local: 603-898-3750  
Fax: 603-898-1041  
Email: n1edu@hamradio.com  
Web: www.hamradio.com

## NVARC Calendar

### January

21 Member's Short Subjects Night

### February

18 Brint, W3NOZ, on radar and stealth tech

### March

18 Lou, WA1JXR, on the Nano VNA



In keeping with the recent flurry of low-low band operation, we've kept a lookout for parts sources and have homed in on using surplus bicycle racks as loading coils.

-de Skip, K1NKR



**Nashoba Valley**  
**Amateur Radio Club**  
PO Box # 900

Pepperell Mass 01463-0900

<http://www.n1nc.org/>

**President:** Jessica Kedziora, WU3C

**Vice President:** Jim Hein, N8VIM

**Secretary:** John Griswold, KK1X

**Treasurer:** Ralph Swick, KD1SM

#### Board Members:

Bruce Blain, K1BG, 2018-2021

Jim Wilber, AB1WQ, 2019-2022

Skip Youngberg, K1NKR, 2020-2023

Property Master: John Griswold, KK1X

Librarian: Peter Nordberg, N1ZRG

Emergency Coordinator: [open]

N1NC Trustee: Bruce Blain, K1BG

Join NVARC! Annual membership dues are \$15; \$20 for a family.

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Contact us on the N1MNX repeater.

442.900 (+), 100Hz

147.345 (+), 100 Hz

53.890 (-), 100Hz

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor:

[editor@n1nc.org](mailto:editor@n1nc.org)

Articles and graphics in most PC-compatible formats are OK.

Editor: George Kavanagh, KB1HFT

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**Nashoba Valley Amateur Radio Club**

*PO Box 900*

*Pepperell, MA 01463-0900*