



# SIGNAL



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DECEMBER 2022

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## FROM THE PRESIDENT

de **BRUCE K1BG**

Last month, I talked a little about contesting, great conditions, and getting on the air and taking advantage of the conditions. November did not disappoint! Two weekends ago, I again travelled to K1TTT for the CQWW CW weekend, and again, conditions were fantastic, with propagation particularly good on the higher HF bands -20, 15, and 10 meters. If you are not a fan of CW (meaning, Morse code), it might be even better! Many, many DX stations are not CW fans. This means that during a CW contest, there is less competition to converse with these stations, making it much easier for modest stations to have some real fun. If you're curious about contesting, next weekend (December 9, 10, and 11) has one of the most fun contests of the year, the [ARRL 10 meter Contest](#). With conditions as they are now, even stations running QRP (5 watts or less) can have some real fun in this contest. Remember, the contest starts at 0000 UTC Saturday, or 7PM

eastern time on Friday. Ten meters is mostly a daylight band, so expect things to really open up Saturday morning by 9 AM or so.



Raising antenna at 2022 Field Day.

Our November meeting was again a smashing success. Our annual QSL sort resulted in over 15,000 QSL cards being sorted and sent off to managers for final delivery to W1 hams. As a service to members, NVARC offers an outgoing service whereby the club picks up the costs of sending cards through the out-

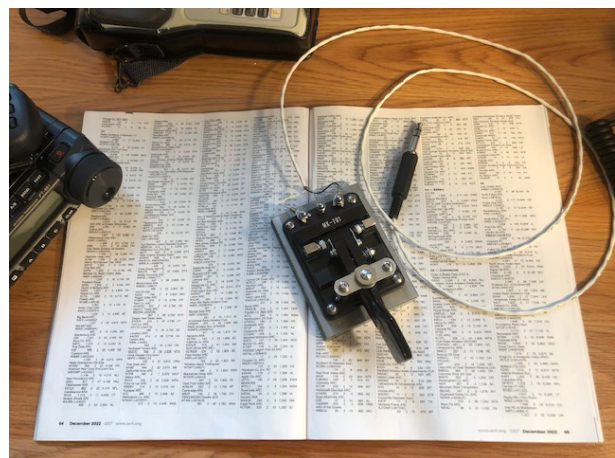
going ARRL QSL Bureau. Several members brought their outgoing cards to the November meeting. Rod, WA1TAC, is our outgoing manager, and he is currently gathering cards to be sent out. Contact him if you are interested in participating. Traditionally, NVARC's December and January meetings have been more social gatherings and less "formal presentations". December is "Homebrew Night", where club members show off projects that are not 100% off-the-shelf commercial in nature. Projects could be 100% homebrew – breadboards, custom designed printed circuit boards, point-to-point wiring, etc. But projects could be far more than that. Restorations of older equipment, kits, software, modifications, repair. If it's too big to bring in, bring pictures. Anything that is not 100% store bought. Bring it! In past years, we've tried a Yankee swap at the December meeting. It works like this: Wrapped gifts are put on a table, and everyone participating picks a number at random from a hat that determines the order of picking. Each person unwraps a gift and can either keep the gift they unwrapped or swap with someone who has already had a previous gift. This continues until all

the gifts have been unwrapped. At this point, the first person has the last chance to swap (because they did not have that opportunity with the first pick). Yankee swaps can be entertaining and fun. If there is interest, let me know on the club reflector, and I will get some ground rules out. Our January meeting is "Short Subjects Night", where club members get to talk about anything they want to. By anything, I mean that as long as it's in good taste, it's OK. We will have a laptop and projector if you want to display a PowerPoint or picture/video presentation, but "stand-up" works as well. In the past, we've had some tremendously interesting and entertaining presentations. You have a couple of months now to think about this. Please come and talk about something you are passionate about. 2023 (YIKES!) is fast approaching, and I'll talk about 2023 resolutions in next month's Signal. Until then, get on the air and enjoy the fantastic conditions we are experiencing, and enjoy some fun and relaxation with your family during the holiday season.

Best & 73  
de Bruce, K1BG

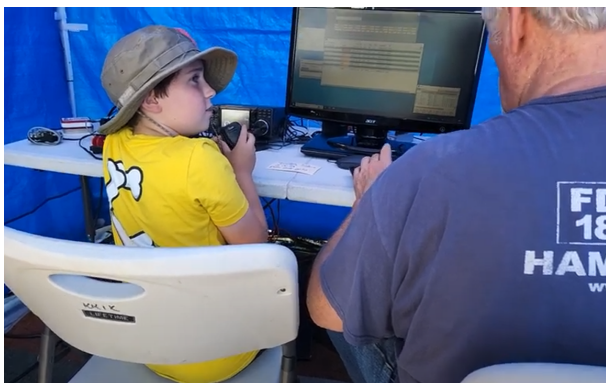
## *2022 Field Day Results*

Those of you who are ARRL members and receive QST (and I highly recommend membership for MANY reasons) found the results for the 2022 ARRL Field Day published in the December issue. And what a Field Day it was!



There was a total of 4,929 entries submitted from the US and Canada, with a total of 29,679 participants. This resulted in – get this – 1,274,117 total contacts! NVARC participated in class 2A – meaning a club or non-club group, running two transmitters. Class 2A had a total of 292 entries. So how did NVARC do? Well, club members will tell you that NVARC participates in Field Day, but we do not “compete” in Field Day. Clubs that are serious only allow their best operators to operate and squeeze every point out of the weekend. NVARC uses Field Day as an operating event, a learning experience, and an emergency preparation exercise. Experienced operators regularly give up their operating time to new or inexperienced operators who are learning what Field Day is all about.

Still, the points mean something to some people. So, here is where we were in the standings. NVARC made 1206 contacts resulting in 5332 points.



Out of 292 Class 2A entries, NVARC finished 20th. Not bad for a non-serious operation! In New England, we placed 4th (clubs that finished 1, 2, and 4 overall were from New England. All of them are very serious Field Day groups). We finished first in Massachusetts, and

of course, first in the Eastern Massachusetts section.

Everyone who participated appeared to have a good time. Equipment worked flawlessly, as did the generators. We succeeded in proving that in an emergency, members are prepared to come together and set up emergency stations. We succeeded in getting people who do not normally operate amateur stations to sit down and experience what it's like. We got bonus points for youth participation – and getting newly licensed young people on-the-air.

Reelfoot ARC K4RFT (+N4MJ)	1,013	2	13	6,112	TN	Cumbe N4L (+
W/K ARC of Greater Milwaukee W9I	1,292	2	11	6,062	WI	Tipper W9RE ARTS W4C
Collins ARC W0CXX (+N0CXX)	1,501	2	135	5,980	IA	Ashe K4J (
Williamsburg Area ARC K4RC (+A14WU)	1,489	2	101	5,782	VA	Fun I WE0 Willie N5T Wes WV6 Woc W9V
W8D	1,274	2	10	5,666	OH	
Club Radio Amateur de Quebec VE2CQ (+VE2CDX)	1,106	2	38	5,460	QC	
Nashoba Valley ARC N1NC	1,206	2	28	5,332	EMA	
Morris RC/Hanover Twp. OEM W2YD	1,004	2	31	5,166	NNJ	
Pine Belt ARC K5PN	1,555	2	13	5,160	MS	Cro W5 Mid W4
Monroe Co. Radio Comm. Assn. W8PI (+W8DWL)	1,229	2	18	5,136	MI	
Proske's Posse N2NC	1,359	2	5	5,004	WV	Blo W8
Hardin & McNairy ARC N4PX	1,331	2	9	4,806	TN	
Waldo Co. ARA N1TN	1,656	2	15	4,774	ME	44 K2 Ro K7 Ka
Fidelity ARC W1MB (+WN1B)	1,001	2	15	4,720	RI	

All in all, we can be quite proud of our Field Day participation. Thanks to everyone involved. See you next year!

de Bruce, K1BG



# CQ POTA KK1X

de JOHN, KK1X

In my retirement I have been watching entirely too many YouTube videos. A lot of the videos, though, have been related to Amateur Radio, mostly in the vein of either antenna design or portable operation. A number of hams seem to spend a fair amount of time in parks working in the Parks On The Air (POTA) program. They appear to be having a lot of fun doing it, and I was looking for something new to do, so I set about, as my wife calls it, “Playing POTA”.



As I have participated in several Field Day operations, often supplying the station, I didn't think setting up a portable operation would be too difficult. I just needed to supply a few more things – antennas, power, and logging. So, I started

planning. Oddly enough, I seemed to have on hand a lot of the stuff I needed. Go figure. I have links below to any items that aren't likely to be already in one's shack. I bought a Bioenno 144Ah Lithium Iron Phosphate battery. It was expensive, but Bioenno has a superb reputation for quality. The battery is housed in a plastic ammo can from Harbor Freight, for which I 3D printed a power distribution plate. The plate sits inside the closed ammo can fused with a switch, voltmeter, USB charging outlets, and PowerPole connectors. Rather than to expose the battery to my ignorance, I bought the Bioenno charger as well for about \$30.

I already had a PAR end-fed antenna for 10-40, and a 30-foot telescoping fiberglass mast, which is handy if I'm in a parking lot without trees. I fashioned a support from a 2"x8" board and a length of pipe. A flange secures the pipe, and I park my car on the "2x8". It's pretty solid. The PAR antenna makes a nice sloper with this mast. I also have ham stick antennas for 15, 20, and 40 meters, and also bought a magnetic mount just large enough to keep the wind from blowing it over. It's clearly not right for mobile work, but the 20 meter ham stick works surprisingly well considering the numerous compromises.

I have a Heil headset and had adapted it to the radio. Given that I'm just rubbish at CW, I figured digital would augment SSB. There's a lot of FT8 traffic in POTA-land. So, radio control was required. After some research, I unearthed a little gem called the Digirig. Housed in a 1"x1"x2" aluminum box, it is a com-



plete USB sound card, as well as CAT control for most radios. Cables for most common radios are available, and the design is clearly documented to allow you to build your own cables. The developer of Digirig is a ham. He gets it. I've since bought a second Digirig for my IC-7000. Digirig presents to the PC as a "standard serial port" and a "standard sound card", which means no driver install, at least on the Windows 10 laptop I used.



Logging for SSB can be done on paper, but for WSJT-X I would need a computer anyway. Microcenter was selling a Windows 10 laptop that runs on 12V, for \$60. It's not going to mine you any Bitcoin, but it does handle WSJT-X pretty well. I don't think it's still available, but I saw a recent ad for a \$100 laptop there...

Logging for phone is done with HAMRS software, available for most recent OS versions, including smartphones. It is pretty lightweight, but has templates for POTA, SOTA, and other types of logging. And it's free. It only lacks rig control.

WSJT-X is used for FT8. Because of its decoding methods, the PC must be closely tied to "real time". FT8 alternates between Tx and Rx in 15-second periods. Stations must be synchronized to allow decoding of the transmitted signal. The decoding software has a hard time if signals are off by more than a half second or so. PCs generally have really bad clocks anyway, so WSJT-X users depend heavily on internet time servers. When there's internet. I've been surprised where I've found service, and where I've not found service. Using my phone as a hot-spot is quite helpful, but some places don't have even cell phone service. What to do? I got a GPS receiver. It's a bit bigger than an Oreo and plugs into USB. The cable is long enough to reach out the car window into satellite view. Free software reads the GPS data and can update the system clock to well within the required timing for WSJT-X.

I'm not done "perfecting" the kit. I've got a hand mic on order, thinking that lugging the adapter and foot-switch is tougher if I have to hike into a property. I'm happy with my setup. So far I have done 26 activations in about 15 parks, making over 400 contacts.

The gear:

- [Elecraft KX3 Transceiver](#)
- [LiFePo4 Battery](#)
- [Digirig](#)
- [PAR ENDFEDZ Antenna](#)
- [HAMRS](#)
- [WSJT-X](#)
- [POTA](#)
- [GPS dongle](#)
- [GPS Software](#)

de John, KK1X

## November General Meeting

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The November General Meeting was dedicated to the annual QSL sort for W1 ARRL QSL Bureau. Seventeen Hams have gathered for this miniature party where the service blends with fun. Newcomers and old timers alike had a rare chance to appreciate the unique art of QSL cards from all over the world. Take a glimpse of the event at NVARC's YouTube Channel

de NVARC, N1NC

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## NVARC's 2 METER NET

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The NVARC Information Net is held Monday nights at 7:30pm, Eastern time on the 2m Pepperell repeater, N1MNX: 147.345MHz +100.

de NVARC, N1NC

## THE TREASURER'S REPORT

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Income for November was \$45 in membership fees. Expenses were \$71.72 for the November meeting (QSL sort) refreshments, \$49.55 for outgoing QSL Bureau cards (June) and \$0.90 in PayPal fees leaving a net expense of \$77.17.

Current balances:

General fund	\$2,677.31
Community fund	\$6,628.25

As of 1 December we have 38 members who are current with their dues and 47 renewals outstanding. Renewal months are in the member list on [www.n1nc.org](http://www.n1nc.org) in the Member's area; check yours on <https://www.n1nc.org/Members/Roster> or you may also email me. Thank you to those of you who mail your renewals or use PayPal without a reminder. 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 an 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

## NVARC BOARD MEETING

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Attendees:

Bruce, K1BG, John, K1JEB,  
Ralph, KD1SM, Vlad, W1MTI  
James, N8VIM,

Call to Order: 7:35pm

Vlad W1MTI has suggested modifying the look of the Monthly Signal Bulletin. It was left to the discretion of the editor Vlad W1MTI.

Jim N8VIM indicated that the YouTube Channel subscribers are increasing. It was suggested that the YouTube Channel should be advertised in the Signal.

Bruce K1BG suggested giving coffee mugs again to the guest speakers as was done in the past. There is a need to recruit additional speakers.

December general Meeting is "Homebrew Night" and the January meeting is "Short Subject Night".

From Bruce K1BG the Monday Night 2 meter NET is doing quite well. Jim N8VIM is working on the Repeater Decoder board.

Billerica Amateur Radio Society (BARS) is going to provide an Extra Class License class.

There was a complaint that the club left the Pepperell Community Building trashy. So, please pick up any trash you see and throw it out or take out what you bring in.

Adjournment: 8:19pm

de John, K1JEB

## NVARC GENERAL MEETING

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NVARC General Meetings are scheduled for the third Thursday of the month at 2430 UTC (7:30pm, Eastern Time), except for July and August, when no General Meetings are held. When held, meetings are at the Pepperell Community center.

## NEXT GENERAL MEETING

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The next General meeting will be held in person at the Pepperell Community Center, 2 Hollis St, Pepperell, MA 01463 on December 15, 2022. We will hold the annual "Homebrew Night". Bring your favourite gadget. Any "homebrew" radio related project you have worked on in the past year will do.

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# Calendar

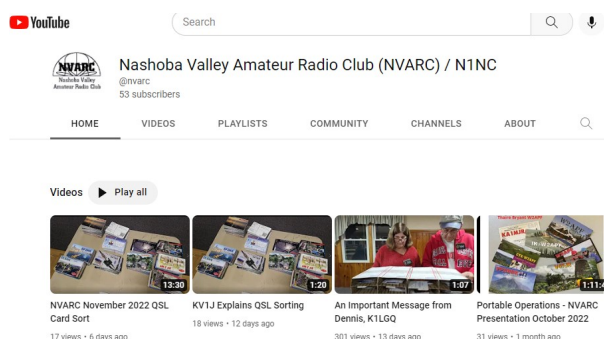
## DECEMBER

- 11 [CQC Great Colorado Snowshoe Run](#)
- 12 [4 States QRP Group Sprint](#)
- 17/18 [Stew Perry Topband Challenge](#)
- 25 [RAEM Contest](#)
- 26 [DARC Christmas Contest](#)
- 30 [YOTA Contest](#)

## JANUARY

- 1 [SARTG New Year RTTY Contest](#)
- 5 [NRAU 10m Activity Contest](#)
- 7 [Marconi Club ARI Loano QSO Party](#)
- 7 [ARRL Kids Day](#)
- 8 [NRAU-Baltic Contest](#)
- 8 [DARC 10-Meter Contest](#)

*Have YOU subscribed to  
NVARC's YouTube Channel?*



How about your XYL? Your kids? Your neighbour? Your broker? Sure, they don't want to miss "an important message"!<sup>1</sup> So, here is the link: [youtube.com/@nvarc](https://youtube.com/@nvarc)

<sup>1</sup>"An Important Message from Dennis, K1LGQ" has gathered over 300 views in a few days after the posting on NVARC's YouTube Channel...



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<http://www.n1nc.org/>  
[www.youtube.com/@nvarc](http://www.youtube.com/@nvarc)

**President:** Bruce Blain, K1BG  
**Vice President:** Phil Erickson, W1PJE  
**Secretary:** John Bielefeld, K1JEB  
**Treasurer:** Ralph Swick, KD1SM

**Board Members:**

Sean Pearson, KC1ONO, 2022-2025  
Skip Youngberg, K1NKR, 2020-2023  
Jim Hein, N8VIM 2021-2024

Property Master: John Griswold, KK1X  
Librarian: Peter Nordberg, N1ZRG  
N1NC Trustee: Bruce Blain, K1BG

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

NVARC general meetings are scheduled for the third  
Thursday of the month at 2330 UTC (7:30pm,  
Eastern Time). NVARC thanks Medtronic, Inc for  
providing the teleconferencing services under their  
employee volunteer support program for non-profit  
organizations.

Contact us on the N1MNX repeater.

442.900(+), 100Hz  
147.345(+), 100Hz  
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: Vladimir A. Goncharov, W1MTI

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## Have YOU Paid Your NVARC Dues?



See: <http://www.n1nc.org/MembersRoste>  
for your renewal month.

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