



SIGNAL

A club since 1992



Since 1993



Since 1996

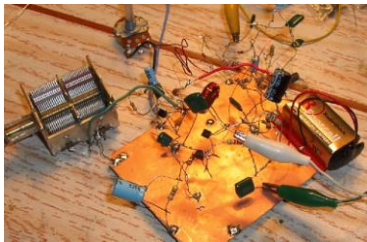
de N1NC

December 2018

Volume 27 Number 12

This Month's Meeting

It's Homebrew Night! Large or small, bring in your latest project and tell us about it.



(If your project is physically too big, don't fret. Bring along some pictures, JPEG files, or anything else.

We'll find a way to project or display graphics.)

Remember, December's HB Night and the upcoming Short Subjects Night both rely on member participation. It's your hobby; brag about it.

BTW, next month *won't* be Short Subjects Night. Instead, W1UE will visit and tell us about his visit to this past summer's WRTC event in Germany.

Last Month's Meeting

At last month's meeting Bob K1IW talked about the radio set up for the Boston Marathon. Bob has been setting up the radios for the Communications Center. where the course Net Controls operate, for about twenty years. The "center" utilizes about 20 radios on 2 meters, 1.25 meters, and 70 centimeters. They utilize some 15 repeaters and remote receivers for the event. He showed pictures of the various sites over the years and the evolution of the station layout.



Courtesy KD1LE

One aspect of preparation is documenting the signal reports from approximately each mile mark along the course using both a handheld and mobile radio to multiple repeaters. The quality of signal it recorded in both directions. This is to determine the best repeater to use for each site for each location. This data is updated as needed depending on changes of repeater locations or possible interference sources.

Since so many transmitters at one location are likely to cause local interference, they receive on two meters but transmit to the repeaters on another band.

Another challenge is setting up and taking down all of the equipment in a reasonable amount of time. The radios are typically packaged as two radios and a power supply to support two net control stations. Because they only receive on two meters, several stations can share a receive antenna. For the transmitters, they use multiband antennas with duplexers and triplexers and directional

couplers to feed multiple radios into one antenna.

After explaining the general operation of the nets, Bob took us on a tour of the Minute Man Repeater Association (MMRA) repeaters and some of the sites, like the Prudential Center and Sligo Hill in Marlboro.

The prediction of inclement weather put a



bit of a damper on attendance—only seven members and three guests attended—but the quality of Bob’s talk “warmed things up.” The evening ended with questions and answers and we closed the

building with only one inch of snow on the ground.

The President’s Corner

This month’s meeting is Homebrew. I hope many will bring along their project—finished or not—to show off to the members. The meeting will be more interesting if there are many projects.

Next month we will have a presentation by Dennis W1UE on WRTC 2018 that was held in Germany this year. It will be interesting to see how it compares to what we experienced.

I have been in contact with the new ARRL New England Division Director and have invited him to speak at some upcoming meeting when he is available.

Other things to think about; elections will be coming up in a few months. We will also need a new Newsletter Editor at that time. And, with the Field Day results in print, we’re half way to the next one so a Field Day Coordinator is on order.

Hard to believe, but Elon Musk’s 100 Mw/129 Mwh lithium-ion battery is a year old. It was the biggest of its kind at the time, but they are getting bigger and more common.

Best wishes for the Holidays,
de Stan KD1LE

Editor’s Note

In what may be a bit of “non-news,” I got married in October and bought a new house in November. I’m now officially a resident of Marlborough—but still intending to be an NVARCER for the foreseeable future. The commute is no big thing.

Moving got me to facing up to how we all seem to accumulate “stuff.” In twenty-five years in the Air Force I got pretty good at culling things out every three or four years. But I’ve now been retired here in Tyngsboro for twenty-five years—with some OCD inclination to manage inventory, but not enough. And I’ve been accumulating stuff on a civilian, instead of a military, salary. ‘Nuff said.

Hmmm. January is considered the time for looking forward and looking back. (Look up Janus in Wikipedia.) In my case, it’s all happening in December.

The QST and Handbook collection stays. The towers go. The rigs stay, but some of the duplicate VHF and UHF FM rigs probably go. The interest in VHF/UHF/SHF stays and will likely be augmented in an interest in HF and DXing. The tool collection gets pared down because my new wife, Dot, has more tools than I have.

It all reminds me of a *Signal* article I wrote in the **[Sorry, I didn’t have time to look it up, so enjoy yourself and peruse the archives.]** issue after Jim K1PTF and I tried to help a widow of a ham whose accumulation was immense. (Nobody like that around here, huh?)

There are some positive aspects. I’ll learn how to make antennas out of wire instead of aluminum.

de Skip, K1NKR

Quick Field Day Summary

Scores for Eastern Mass, all classes

CALL	CLASS	QSOs	SCORE
NS1RA	3A	2,546	10,166

W1MA	3A	1,460	5,566
K1RK	2A	1,501	5,526
W1HP	2A	1,319	5,368
N1NC	2A	1,410	4,562

NVARC was:

- 5th place 2A Eastern Mass
- 6th place 2A All Mass
- 8th place 2A in New England

Strays

Winter Fest 2019. *Information via Chris Babbitt, N1CFB.*

Good Morning Radio Fans, The First-Best HamFest of the year is right around the corner. The Whitman ARC WinterFest 2019 will be held on January 19th 2019 from 9am to 1pm at the KofC Hall, 1195 Bedford St. (Rt. 18) in Whitman, MA 02382.

Entry is \$5 (with raffle prizes drawn at noon) and tables are still available. Visit <http://www.wa1npo.org/WF/2019Winterfest.htm> for event information and table payment options



December is [YOTA Month](#). Listen for stations on the air with YOTA as the call sign suffix.

"The idea for this is to show the Amateur Radio hobby to young people and to encourage youngsters to be active on the amateur bands," said Tomi Varro, HA9T. "This is a great moment to show Amateur Radio to the world and to invite newcomers."



Elections are coming up in April. Start running!

Arduino Group Field Trip

The Arduino Group continues to meet on Monday mornings at the Pepperell Community Center at 10:15 AM. We currently pondering new projects like a large screen version for Smith Chart display, solar control-

lers, or data loggers, and this and that. We are finishing up at least three hardware versions of an Arduino based Antenna Analyzer and the software to deal with the different configurations. We have rediscovered and used various tools such as oscilloscopes like Tektronix (big), the DSO138 (small) that we built as a Tech Night project way back, logic analyzers like the one George KB1HFT recently demonstrated, and a new one Peter N1ZRG was showing this week.



Courtesy KD1LE

As a result of our interest in computers and such, Peter N1ZRG, George KB1HFT, Bill AB1XB, and Stan KD1LE made a pilgrimage to the Micro Center in Cambridge. It had been a long time since any of us had been there. For those who might be unfamiliar, the Micro Center is "all about computers." The store is the size of a supermarket (and was one in a past life). The above picture shows only about one third of the store front.

If you need computer parts and want them today, I don't know of a better place to go.

You want a mouse?



Courtesy KD1LE

There is a supermarket size aisle of mice. Hanging overhead are what I suppose are gamers chairs for comfort and to hold you,

PC or controls. If you want to build your own power PC they have all sorts of large PC cases and everything to go in them. If you are really hard core they have the systems to liquid cool your CPU and high-end video cards that otherwise might have two or three cooling fans on them. They have 4TB desk-top storage, USB raid, SSD's and regular old disk drives.



Courtesy KD1LE

Don't go there if you can't afford to spend money because you might need a shopping cart to carry what you find you "need".

They also have a small section of electronics parts (less than Electronics Plus in Littleton). They have parts for model rocketry, robots, Arduino, Raspberry Pi, and they have a TV section. Another section I found interesting is targeted at kids. There are kits for robots, blinking flowers, etc. They also have kits like Discover Electronics and the Smithsonian Kids Space Tablet that teaches kids about space and others.

If you are curious you can find them at <https://www.microcenter.com/>

If you know exactly what you want you can order ahead on-line and have it ready for you when you get there, which Peter did for some of his items.

de Stan KD1LE

Member Status

From an e-mail from Gene WW4EN

"I've moved to my wife's house in NY (Tuxedo Park – north of the city) so she can take better care of me and not worry about getting snowed in at the barn during the winter.

"Treatments now via Sloan Kettering. Grueling but much better than the alternative.

"Too bad no one wanted the antennas – just laying on the ground. Would it help to offer them for free? Hate seeing them like that – they were such good rigs.

"Thanks for checking in on me.

"Merry Christmas."

Treasurer's Report

Income for September was \$45 from membership renewals. We had no expenses; sufficient postage remained for the November Signal mailing. Our net income for the month was \$45.

Current balances:

General fund \$2,781.93

Community fund \$5,061.52

As of 4 October, we have 48 members who are current with their dues and 17 renewals outstanding. Thank you to those of you who hand in your dues before I come to you. Please check your renewal status on the roster circulated at the monthly meeting or ask me.

If you are joining ARRL or renewing your membership please consider me letting me send in the paperwork for you. The Club will buy the stamp and will get a commission from ARRL. ARRL membership checks should be made payable to NVARC. I deduct the Club commission before forwarding your paperwork to Newington. As a Special Service Club, the ARRL expects a majority of Club members to also be ARRL members.

de Ralph KD1SM

Board Meeting Notes

Board meeting 12/6/18

Attending: Stan KD1LE, Jim N8VIM, John KK1X, Ralph KD1SM, Ed N1YFK, Jim AB1WQ, Bruce K1BG. Observing: Skip K1NKR.

- December Homebrew
 - January WIUE Dennis on WRTC, so Short Subjects in February
 - TDOA Shirley group is unresponsive. Raymond folk may well crash the TDOA party - ~~Skip~~ [correction] Stan to issue invitation.
 - Elections coming up in April. Board term for Jim AB1WQ will expire in April
 - Field Day is coming up in June
 - Fred Hopengarten has been invited to a meeting TBD.
 - Some discussion about dues increase / added fee to cover cost of mailed physical newsletter. We tend to agree to impose a fee to those who get the newsletter, rather than impose a higher dues for everybody! Stan to write a newsletter blurb.
- Respectfully submitted,

de John KK1X

Club Services

Loaner Equipment. We're not an "inventory" club, but there's a rig, power supply, and antenna available for newbies or to tide you over when your equipment is on the fritz. Contact John, KK1X.

PowerPole Discounts. Need PowerPole connectors? Don't want to pay full price (or higher)? They're about a buck a set on the street; fifty cents a set (*i.e.*, one red plus one black, 30 amp) from NVARC stock. See Ralph. He mostly packages on request, preferring multiples of five, but is willing to do other quantities.

Saturday Breakfast. Not officially a club function, but a consistent part of club life. A dozen or so members (and some wives who are members, and some wives who are not, and some non-members who aren't wives or husbands) rendezvous at Tiny's in Ayer for breakfast at 8am on the dot. Somehow, no matter what food is ordered, no matter how fast the service is, no matter what the conversation topics are, we pull out at 9am. That's odd...

Calendar

December

Quiet month. Buy presents. Celebrate.

January

19 WinterFest, 9a-1pm, Whitman MA

February

16 Marlboro Flea Market

24 Augusta ME HamFest

March

3 RADIO 50 Antique Flea Market, Nashua NH

Upcoming Operating Activities

2019

Canadian NPOTA (all year!)

December

YOTA month

8-9 10m sprint

16 Rookie Roundup -- CW

January

1 Straight Key Night

5 Kids Day <http://www.arri.org/kids-day>

5-6 RTTY Roundup

19-21 VHF Contest

26 [Winter Field Day](#)

February

11-15 School Club Roundup

16-17 International DX Contest (CW)

Are you a "contest nut?" See <http://www.arri.org/contest-calendar> (Contest Corral) for month-by-month listings of both ARRL and non-ARRL contests.

Advertisers

Yes, we can accommodate advertisers.

Canadian National Parks on the Air

From the ARRL Letter

The Canadian National Parks on the Air event (**CNPOTA**) will get under way on January 1, 2019, and continue until year's end. A volunteer group of a half-dozen hams in Nova Scotia, working with a zero budget, came up with the notion of attempting to replicate the success of the National Parks on the Air (NPOTA) event in 2016, first created to mark the centennial of the National Park Service.

Radio Amateurs of Canada (**RAC**) has announced its support for CNPOTA, in cooper-

ation with Parks Canada. All radio amateurs are invited to activate any of Park Canada's 48 national parks and 171 national historic sites, while "chasers" attempt to land a contact.

Activity for activators and chasers will be tracked on a dedicated website and a real-time leader board, and operators may compete for online awards and certificates. For updates on the program's progress, [visit](#) the CNPOTA website.



**Nashoba Valley
Amateur Radio Club**

PO Box # 900
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<http://www.n1nc.org/>

President: Stan Pozerski, KD1LE

Vice President: Jim Hein, N8VIM

Secretary: John Griswold, KK1X

Treasurer: Ralph Swick, KD1SM

Board Members:

Jim Wilber, AB1WQ, 2016-2019

Ed Snapp, N1YFK, 2017-2020

Bruce Blain, K1BG, 2018-2021

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.

Meetings are held on the 3rd Thursday of the month at 7:30 p.m. in the Pepperell Community Center.

Contact us on the N1MNX repeater.

442.900 (+), 100Hz

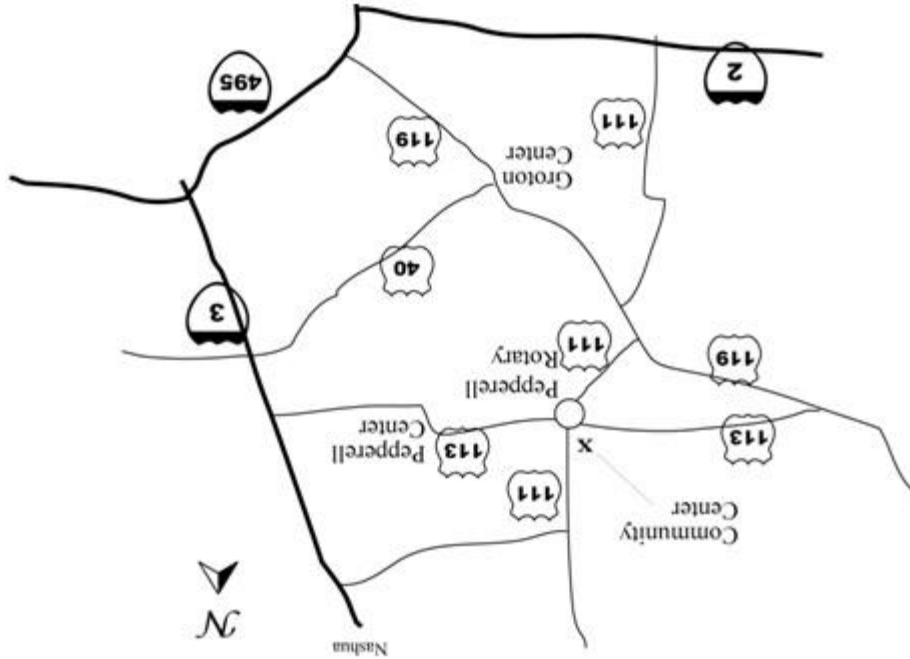
147.345 (+), 100 Hz

53.890 (-), 100Hz

This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most PC-compatible formats are OK.

Editor: Skip Youngberg, K1NKR

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