



# SIGNAL

A club since 1992



Since 1993



Since 1996

de N1NC

November 2018

Volume 27 Number 11

## This Month's Meeting

This month's speaker is Bob DeMattia K1IW. He will be speaking on communications for the Boston Marathon. They are a significant challenge because of the length of the race which passes through eight cities and towns and the many separate nets it takes to support the many functions. To say it is like the Groton Road Race on steroids is probably an understatement.

## Last Month's Meeting

Another great QSL sort for the W1 Bureau. Propagation, LoTW and time proximity to the Boxboro Convention have cut into the number of cards we've had for sorting, but the camaraderie was terrific nonetheless. Thanks to all members and guests who participated.



Courtesy KB1HFT

As usual we had an excellent turnout for the meeting. Eric KV1J was only able to bring



Courtesy KDISM

two and a half boxes of cards to sort. We usually sort five boxes in an hour and a half.



Courtesy KB1HFT

After all the cards had been sorted into the sorting boxes they are consolidated in the center row of A-Z letters for final packaging to go to the letter sorters.

As the cards were packed up and we waited for pizza circles of technical discussions formed.



And then there was pizza.



With Boxboro an annual event it has affected the number of cards available for our sort. Based on some discussions at the meeting we will probably move the card sort to the November meeting next year.

After the QSL Card Sort I did some research in the Signal archives. I was wondering how long we have been sorting cards for the W1QSL Bureau. I didn't check every newsletter, but what I have found is that we started sorting back at least to 1996 When Don Haney KA1T gave a talk on how the QSL Bureau works and brought several boxes of cards to sort. The early years were less regular and they were not in a consistent

month. There may have been a missed year depending on when we could get the QSL Manager scheduled but we made up for it by doing two sorts one year. Back then it was less common that clubs were doing the sorts. Along the way we helped get some other clubs involved to make it easier on the Incoming QSL Manager.

*de Stan KD1LE*

## The President's Corner

It is November already. This month's speaker should be interesting on setting up communications for the Boston Marathon.

It looks like we will have two Thinking Day on the Air sessions, one in Shirley and one in Tyngsborough. I know you always see it Tyngsboro, but that isn't the town's real name. They just shorten it for all the signage. This should be easier because they are tentatively on the 9<sup>th</sup> and 16<sup>th</sup> of February 2019 instead of both the same weekend. Wow, 2019 planning already. We will need member support for these activities.

Last week I had the opportunity to talk to a Girl Scout troop about computers. It wasn't a very technical presentation. You can't do that with seven-year old girls. But it was fun. Mostly show and tell with bits and pieces of computers from desktops, laptops, and notebooks. I even threw in some radio, reminding them their cellphone, Bluetooth, and WIFI were radio devices.

*de Stan KD1LE*

## Editor's Note

Thanks this month to Stan, KD1LE, who picked up the newsletter editing during my absence. Stan's no novice to the Editor's desk. In the past there were times he was simultaneously President, newsletter editor, programs arranger, equipment inventory holder, *etc., etc., etc.* I'll be back at the desk for the December through April issues. Then there'll be a new editor.

*de Skip, K1NKR*

## Strays

That driver mentioned in last month's "from the Editor?" Don't get smug and figure he was an FN43 local. He had Massachusetts



I participated in the Lowell Marathon last month. Some may remember that NVARC ran the communications for it several years back when the event first started. The connection being that one of the organizers lived in Pepperell. It was a very different experience from either the Boston Marathon or the Groton Road Race. Every event has its own character and challenges depending on what service the organizers need.



Courtesy KDILE

In this case the event primarily took place in Lowell with a short portion in Tyngsborough. Police communications were less of an issue. In this case our task was to support Lowell Emergency Management and to track runners that dropped out of the race. Net control was in a Lowell Fire Department communications vehicle (the red truck on the right) at the Brunswick bowling alley where much of the support and police operations were located and staged. When runners were picked up along the course they were funneled through the medical station where I was assigned where they were evaluated. If needed they were then bussed back to the start.



Courtesy KDILE

### Runners crossing the Rourke Bridge

Runners were tracked by bib numbers through the various locations and that was reported back to an information table at the finish where families waiting to see them finish could check if they didn't arrive as "planned".

It was cool and extremely windy that day and the EMT's medical tent nearly blew away on quite a few occasions dragging the yellow five-gallon buckets of concrete with it.



Courtesy KDILE

The EMT's shelter was provided by MEMA and was a quick set up type. There are tubes inside forming the supporting ribs which are inflated from the outside erecting the shelter. Then it is staked down or in this case attached to the yellow five-gallon buckets of concrete which had a rebar loop. Since a gallon of concrete weighs about 20 pounds you might think that would do it, but we could have used a few more.

More than a few times I was holding down the tent like at Field Day a few years back. All in all, it was a good experience.

After the Board meeting I was pulling together clothes for the next day and grabbed a tee shirt. To my surprise it was from the 2000 Bay State/Lowell Marathon which we must have supported.

Terry Stader KA8SCP from PART was the radio organizer and Net Control. The last time I worked with Terry was the first Groton Road Race where we sat on a picnic table in front of the Florence Roach School to run Net Control.

de Stan KD1LE



This summer and fall I worked on a new project with the Pepperell Conservation Commission (PCC) and the Nashoba Conservation Trust developing a portion of conservation land as a Pollinator Meadow. It involved clearing land, putting up fences and ultimately seeding several acres of the property with wild flower seeds.



The tractor is pulling a slicer/seeder that prepares the ground and spreads seed. As we all know, it is a good thing to have friends in the PCC which helped for WRTC 2014 and our Field Days. For more information on what we were doing see the below website.

<https://xerces.org/pollinator-conservation/>

de Stan KD1LE



## What is the Retention Time for Various Media without power?

I was thinking about replacing some of my laptop disks with SSD's. I was doing some research on read and write speeds and some of the other characteristics when I came across some interesting info on the data retention of SSD's. So, I did some further searching for comparison to other "media" which is shown below. It hasn't changed my intention to replace the drives in the machines I use constantly. But it does show that you have to pick the right tool for the job.

Magnetic data and cassette tape: 10-20 years

Nintendo Cartridge: up to 10 years

Floppy Disk: 10-20 years

CDs and DVDs: 5-10 unrecorded 2-5 recorded

Blu-Ray: 15 years or more

M-Disc: 1,000 years (theoretically)

Hard Disk: 3-5 years

SSD Client drive: 105 weeks

SSD Enterprise drive: 20 weeks

de Stan KD1LE

## News and Happenings



The Arduino Group continues to meet at 10 AM on Monday mornings at the Pepperell Community Center. We continue to work on aspects of the antenna analyzer (AA) project, brainstorm future projects and try new things. Recently George KB1HFT brought a new acquisition to observe signals on the data lines of the AA. It is a small logic analyzer about the size of a small cell phone. Pictured below, it is attached to one of the AA's and is displaying the signals between the Arduino and the direct digital synthesizer (DDS) which generates the RF output used to test the antenna.



Courtesy KD1LE

One of the challenges we have had at our Arduino meetings is having sufficient light to solder and inspect circuit boards. An inexpensive and easily constructed solution I created is shown below.



Courtesy KD1LE

With a \$5 LED shop light for the illumination I used two pieces of Masonite as supports. I used a holesaw to cut a three inch hole in each for the light to slip through. If the support is sufficiently wide the light is quite stable.

de Stan KD1LE

### Ham Radio Web Resources or My Favorite Web Sites

In my first article on this subject, I mentioned two great sites for historical radio reference - <http://www.americanradiohistory.com> and for ARRL members, <http://www.arrl.org/arrl-periodicals-archive-search> (the site may tell you that you have to be an ARRL member. If it does, try again!). There is a third web site that is equally or possibly more interesting - <http://earlyradiohistory.us>. The site documents all aspects of radio between 1896 and 1941, not just amateur radio. De-

tails and links provide excellent knowledge and background as to what was happening. For instance, the article titled "Stop It Kid! Cries Congress to the American Boy" (<http://earlyradiohistory.us/1908stp.htm>) is a reprint from the *San Francisco Call* (March 29, 1908) and talks about interference from kids with their spark transmitters to naval stations and the stations that some of them had.

<http://earlyradiohistory.us/1913areg.htm> is a copy of the first regulations governing radio communications in the United States. Hours and hours can be spent looking at this interesting site.

Lee, ZL2AL has an interesting article reprint written by Bill Leonard, W3SKE (SK) in 1958. It's good reading. Check it out at <http://www.zl2al.com/2740/the-battle-of-the-hams/>.

As always, I'm interested in knowing if anybody is actually reading this article. So send me your feedback, and let me know if you find any interesting sites. And please heed this advice: If you are spending more time surfing the web than you spend on the air, you need to re-prioritize your time!

de Bruce K1BG

### Treasurer's Report

*Income for October was \$100 from membership renewals. Expenses were \$20 for newsletter postage and \$82.64 for October meeting pizza and soda, leaving a net expense of \$2.64 for the month. Current balances:*

*General fund      \$2,736.93*

*Community fund   \$5,061.52*

As of the 4th of October we have 49 members who are current with their dues and 16 renewals outstanding. Thank you to those of you who hand in your dues before Ralph comes to you. Please check your renewal status on the roster circulated at the monthly meeting or ask Ralph.

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 November 1, 2018

Stan KD1LE, Bruce K1BG, Jim AB1WQ, Jim N8VIM, John KK1X, Current balances:

Treasurer's Report:

General fund \$2,736.93

Community fund \$5,061.52

Some discussion about the utility of sponsoring Thinking Day in NH. How does it benefit our club, and/or ham radio in general? This worked into a continuing discussion on whether we should run a licensing class and the choice and preparations of materials. We ended with an action to check with the Raymond scout leader (Jill) to see if some of the girls would be interested in licensing classes.

Bob DiMattia K1IW for November meeting

December Homebrew

January Short Subjects

Note we may shift the Dec and/or the Jan meeting due to a potential speakers preference.

Feb 9 and Feb 16 are TDOA dates for 2019. Much discussion regarding logistics.

Respectfully submitted,

de John KK1X

## Club Services

**NVARC Property List.** As of: 11/2/2018

Call Sign	Name	Qty	Property Description
KD1LE	Stan Pozerski	32	Safety Vests
KD1LE	Stan Pozerski	3	5-ft brown folding tables
KD1LE	Stan Pozerski	5	Code Practice Oscillators
KD1SM	Ralph Swick	1	Swingline M711 Stapler
KD1SM	Ralph Swick	1	NVARC banner 3x5-ft
KK1X	John Griswold	1	Badge punch
KK1X	John Griswold	1	Laminator

W1PJE Phil Erickson 1 Kenwood TS-450S transceiver, SN 6100025  
 AB1WQ Jim Wilber 1 Cushcraft R-7 antenna  
 W1PJE Phil Erickson 1 Astron RS-35M power supply, SN 9506184

**Outgoing QSL Service.** We collected cards during the W1 Bureau sort in October. Rod, WA1TAC, is our outgoing Bureau Manager. If you have cards to go out see him.

## Calendar

### November

1 electric light bulb patented 1879  
 1-6 New York Comedy Festival  
 2-8 Pirates Week Festival Cayman Islands  
 17 Lewis and Clark reach the Pacific 1805

### December

5 Walter Elias (Walt Disney) Birthday  
 12 Marconi's radio signal crosses Atlantic 1901

### Upcoming Operating Activities

#### 2018

International Grid Chase (all year!)  
 Science Milestones event (all year!)

### November

3-5 Sweepstakes CW  
 17-19 November Sweepstakes -- Phone  
 24-25 EME Contest, 50-1296MHz  
 30-2DEC 160 Meter Contest

### December

8-9 10m sprint  
 16 Rookie Roundup -- CW

### January

1 Straight Key Night  
 6 Kids Day  
 6-7 RTTY Roundup

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

## Advertisers

### FOR SALE

#### HP141T Spectrum Analyzer Set

HP 141T Display Section  
 HP 8552B Spectrum Analyzer - IF Section  
 HP 8556A Spectrum Analyzer - LF Section (0-300KHz)  
 HP 8553B Spectrum Analyzer - RF Section (0-110MHz)

HP 8554B Spectrum Analyzer - RF Section (0-1200MHz)  
HP 8555A Spectrum Analyzer - RF Section (1.5-43GHz)

**...plus**

HP8443A Tracking Generator Counter (0-110MHz)

**...plus**

Spare storage CRT

**...plus**

Documentation/manuals

\$850 or, let's talk... Contact Skip, K1NKR

## A Final Thought

... Your article could have been here.



But instead I put another one of Ralph's pictures.



## Nashoba Valley Amateur Radio Club

PO Box # 900  
Pepperell Mass 01463-0900

<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

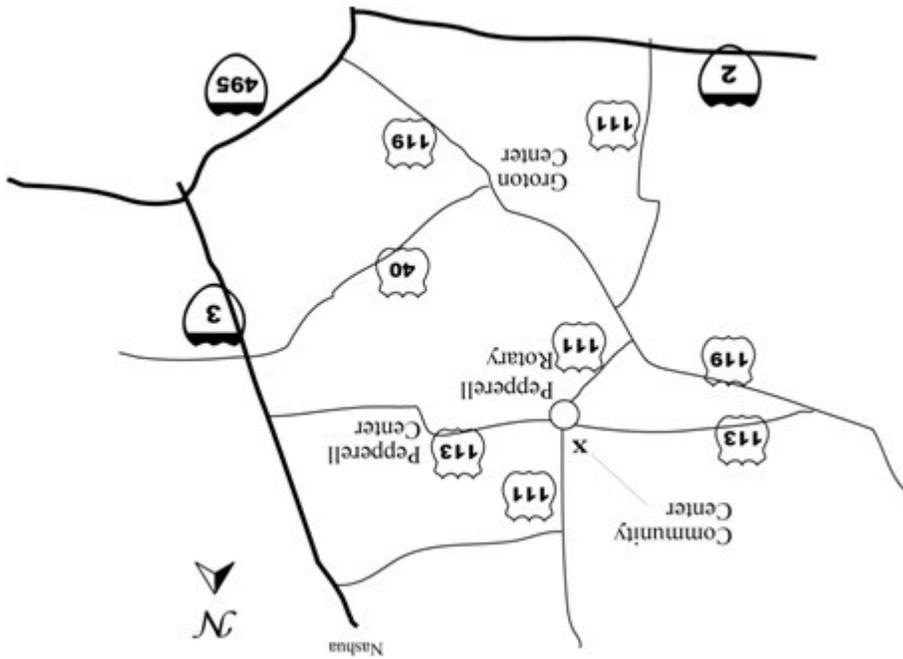
147.345 (+), 100 Hz

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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**Nashoba Valley Amateur Radio Club**

*PO Box 900*

*Pepperell, MA 01463-0900*

