



SIGNAL

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de N1NC

August 2016

Volume 25 Number 8

This Month's Meeting

Again, it's Summer hiatus so there's no July or August regular meeting.

You were ready for the club picnic though, weren't you? Sunday the 14th of August, Gene WW4EN again hosted the annual NVARC picnic at his QTH. (www.qrz.com/db/ww4en) Because of the timing, we announced this in the July newsletter and provided information via the Reflector. (*I was planning on pictures for this month's newsletter, but it went to print just before the picnic. Sorry. Stay tuned next month. Ed*)

And stay tuned for some great meetings this coming program year. In September we've scheduled Bo Budinger WA1QYM to speak on "Growing an Active Club," as well as Tom Walsh, K1TW, our Eastern Massachusetts Section Manager to tell us of League happenings. In October we'll have our annual gala W1 QSL Bureau QSL sort. December will be members' "Home Brew Night" and January will be members' "Short Subjects Night." Right now, only November is uncommitted—we're working to resolve which of three (count 'em, three) very informative possibilities will be presented.

The President's Corner

After several trips to the Lowell National Historical Park prior to Field Day I was finally ready to give NPOTA a try. I have been working off and on setting up my mobile/portable station in the van. It takes

some thought to make things work and be comfortable, since it is a mobile configuration. Like where to sit, how to power the rig, and how to select the antennas to use.



KD1LE photo

But I got that worked out to a reasonable degree.



KD1LE photo

Monday, Aug 1st I headed down to the park with every intention of being the first NVARC member to officially activate a National Park. That means making at least ten

contacts. Well, things didn't work out that way. I hadn't yet received permission to use the N1NC call sign so that would have to wait.

(If you want to work NPOTA under the N1NC call sign there are instructions on the website at <https://www.n1nc.org/Members/NPOTA>. If we make enough activations NVARC will get listed on the ARRL NPOTA pages.)

Since I was already at the park, I stopped by to visit Ranger Phil Lupsiewicz at HQ and give him the traditional NVARC mug for speaking at the June meeting, where he talked about the NPS Centennial and considerations if you want to operate in the park.

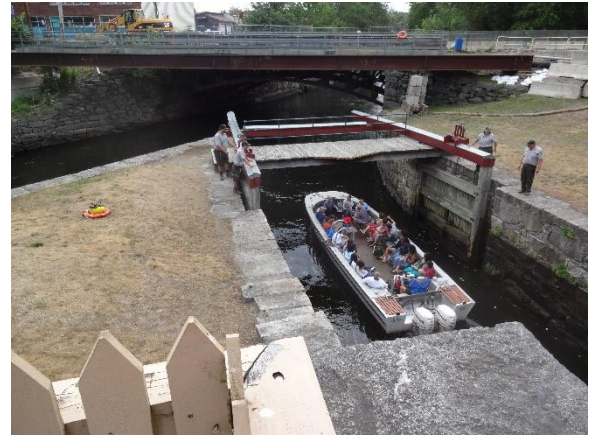


KD1LE photo

The Lowell Festival had been the previous weekend and all around the city they were still cleaning up, taking down stages, picking up porta-johns, etc. Anyway, we had a little chat and I was on my way. Just as a test, I set up and tuned around the 40 and 20 meter bands but didn't hear much.

Later in the week I decided to make good on my goal of activating the park and set out the morning of Thursday, Aug 4, to try again. Getting into the city, I took a detour to look at another operating site. Because of the canal system, there are a few outlying spots separate from the downtown visitor center area. So I stopped at the Francis Locks, which was a little dicey as the bridge over the canal is being replaced and there were some detours and dead ends. I wasn't sure what I would find. The locks are on a side street not far from UMASS Lowell and not far from the river. I was glad to see it was a part of the park and had a number of Park Service trucks and personnel there. The canal boat tour goes through the locks, which are run

manually as they would have been 100 years ago.



KD1LE photo

Here (*below*) four Rangers are opening the lock to let a tour boat in. The boat was just approaching from under the bridge but I didn't get it in the picture. The long arms on the gate allowed them to open the gates relatively easily. Once the boat was in the lock the Rangers moved to the upper gate to let the boat out.



KD1LE photo

For some reason the lever arm on the upper gate (*the earlier photo*) was much shorter and though they look like they are taking a break, they are all pushing on the red arm to open the gate on this side.

On my last trip to the park I asked about the length of the gate arms. The arms were sized to balance the weight of the gate and depended on the materials used. The short gates are Southern Pine which is heavy. The longer gate arms are of a softer/lighter wood.

Back to NPOTA. I got to the site about 9:30 AM and after looking around and taking a few pictures and clearing my operation

with the Rangers I set up shop, err station. Though it is not my favorite, I started out on 20 meters. It took a while (15 or 20 minutes) to make my first contact but then I ran at a slow rate—a minute or two apart. Nice casual contacts with the stations thanking me for activating the park. I switched to 40 meters several times but never heard a workable signal so I kept going back to 20 meters. About 11:00 AM the band seemed to drop out and I never made another contact. Well, I made my 10 contacts with a few to spare (14 total) and packed up by noon to head home. On 20 meters distance doesn't mean much. I worked Florida, Missouri, Kansas, Nebraska, Indiana, Virginia, Pennsylvania and a few other states but nothing nearby.

Even though I only made 14 contacts I am encouraged by this attempt and will go back. Lowell has had somewhere around 700 contacts total now. There are more than 11,000 Chasers active in NPOTA, so more than 90% of the Chasers still need HP24.

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Brick, Per-Thousand . . . 16 "	Pine " " " " . . . 16 "
Mannure Per Boat-Load . . . 50 "	Bark " " " " . . . 20 "
Oak-Timber Per Ton of 40, Cubic-feet. . . 35 "	White-Oak Pipe-Staves Per M. . . 100 "
Pine " " " " " " " " . . . 25 "	Red " " " " " " " " . . . 67 "
Sparres " " " " " " " " . . . 30 "	White-Oak Hoghead-Staves Per M. . . 60 "
Pine Plank and Boards Per-M.(Board-Measure) 30 "	Red " " " " " " " " . . . 40 "
Oak " " " " " " " " . . . 60 "	White " Barrel " " " " . . . 20 "
Ash and other hard stuff " " " " . . . 40 "	Red " " " " " " " " . . . 16 "
Clapboards Per M. . . 25 "	Hoghead Hoops . . . 12 "
Shingles " " . . . 6 "	Barrel " " " " " " " " . . . 30 "
Laths " " . . . 6 "	Hoghead Hoop-Poles " " " " . . . 20 "
Posts and Rails Per hundred . . . 15 "	Barrel " " " " " " " " . . . 10 "
Treenails Per Thousand . . . 50 "	All other Articles Per Ton of 2240 lbs.
Hop-Poles " " " " . . . 20 "	

Articles That do not pass through more than three Locks to be charged only half the above rates of Toll.

KD1LE photo

I know George KB1HFT thought his train fares to the West Coast were low, but can you read the above sign after it's been printed here in the newsletter? Canal Tolls: 16 cents per 1000 bricks, bituminous coal 12 cents per chaldron of 36 bushels, etc. **[Sixteen cents in the mid-nineteenth century equates to about \$4.60 now. Transporting those thousand white oak staves would have cost \$28.79. Ed]**

I did go back the following Saturday morning for two hours and increased my contacts per visit by 50%. But 22 more contacts isn't exactly a hot DXpedition.

Till next month...

73, Stan KD1LE

News and Happenings

Tech Night

We had a Pixie building party at NVARC's Tech Night, Thursday, August 11. The \$10 Pixie QRP transceiver kit can be assembled easily in one evening and provide a CW transceiver on 40 meters.



K1NKR photo

Bob W1XP led the effort and had also worked out a simple modification that allows operation on 80 meters or even both bands,



K1NKR photo

The group of attendees included members Dennis K1LGQ, Rod WA1TAC, Jim AB1WQ, Bob W1XP, Stan KD1LE, John K1JEB, and Peter N1ZRG—plus new member Harvey Serreze K1KKS, of Pepperell. Harvey is back active and on the air following a hiatus stretching back to 1984.



K1NKR photo

We were also joined by guest Jim Lajoie KB1DTF from Kingston NH! Jim works in Litchfield and revealed that he finds the clubs in this area friendlier than other clubs that might otherwise be closer to home.



K1NKR photo

New England Division ARRL Convention
September 9, 10, and 11 at the Holiday Boxboro Woods, Boxboro, MA. www.boxboro.org

The Boxboro New England Convention is looking for volunteers. See the www.boxboro.org "General Info" page for information about duties and incentives. Contact Andy KB1OIQ at KB1OIQ@boxboro.org.

Two NVARC member talks at Boxboro: "Fast Scan Digital ATV - Station Construction and Operation" by Nashua's Fred Kemmerer AB1OC and NVARC's Skip Youngberg K1NKR, and "Thinking Day On The Air Experiences and the New ARRL Radio and Wireless Technology Interest Patch" by Skip K1NKR and Jill Galus, KB1SWV (both NVARC members).

SK

Dan Daigneault N1LLG, a long time member of NVARC, became a Silent Key Saturday, July 30th. Dan was active in emergency management in the town of Groton.

Editor's Note

You'll see in the President's Corner that Stan made NVARC's first official full activation of a National Park in early August. Good for him! (He must be proud. Imagine putting a 2-1/2 page President's Column together before conducting a Board meeting on the same evening!) He and I were having a friendly competition and I actually got out to two parks (Roosevelt Campobello Island International Park AA21 and Acadia National Park NP01) in July. Unfortunately, I was running QRP SSB and made only one contact per park. Yecccch! Not enough to count as an activation on the ARRL's NPOTA Leader Board—but the QSOs were real. Anyway, congratulations to Stan. Who will be next?

Second topic. I heard about something while listening to WGBH-FM the other day that resonates (pardon the pun) with club activity. It's a economic psychology bias called "the IKEA effect." Go ahead, it's real. Look it up at https://en.wikipedia.org/wiki/IKEA_effect. Basically, we place higher value on the things we've personally created than on the ones we buy.

But we hams have known this all along. We call it "the Heathkit effect."

It's a handy way of outreach, too. Even the video game generation gets satisfaction out of having personally built something. My granddaughter Annika (a Field Day participant and harmonic of Jill KB1SWV) has joined her three boy cousins in soldering together small electronic kits. My oldest grandson Sam has just finished building an NVARC oscilloscope.

It also explains how the astonishing pent-up demand among our own members to actually "do something" has made our Tech Night projects so successful. Remember the response to last year's CW keyboard? How about Jim N8VIM's recent oscilloscope kit—

everyone wanted to build one even though no one knew what to do with it. Bob W1XP has a QRP CW transceiver project (reported this month) and we're trying to apply pressure to have Bruce K1BG show us how to build a rotor control computer interface. Heathkit? We'll soon have shacks full of "NVARCkit" equipment.

73, Skip K1NKR

Hints and Kinks

These days' computer security should be a concern for everyone. Whether it be a computer at home or a laptop you travel with for business or convenience, we store all kinds of personal and financial information on our machines. Some of that data we delete when we no longer need it or to free up disk space. But we should clean up a PC disk is when we discard a machine or give it away.

The first thing everyone should be aware of is that when you delete a file or program it is not actually deleted or erased. The operating system simply marks the space as free space by "deallocating" it. There are many tools available, some even in Windows, that allow those files to be recovered. In normal use, that space is randomly reused as new information is written to disk or files are re-written during operations like defragmentation. Another vulnerability is that even if you have an encrypted disk, files are written to disk in "plaintext" to save them and then are encrypted. The plaintext file is then deleted but not erased. So if all you do is delete everything you don't want to be exposed before you leave that PC at the curb on trash day you might be giving away your data.

There are solutions available. The extreme method some organizations require is physically shredding the disk drive. We can use a less violent option and dismantle the disk drive and remove and bend or break (some generations of drives used glass platters) the disk platters. Those choices don't allow the option of recycling or giving away the PC.

There are programs available, some even free, that take a less destructive approach. They delete the data by writing over it in va-

riety of ways. Various organizations have requirements for the way the data is overwritten and how many times it is done. The common choices are writing ones, writing zero's, writing random bits, writing a pattern such as walking a one through a word of zero's or a zero through a word of ones. The number of write cycles varies from a few to many tens of iterations. One consideration is the time it takes to perform the operation. The more aggressive write procedures can take days on a large disk. It is generally accepted today that a process using a few write cycles is all that is needed.

So what can we do and how do we do it? Fortunately, Windows has some built in tools that are part of the disk encryption system. With the command CIPHER you can easily "erase" the free space on a disk drive. It can write over all the free space or just a folder, which would run in less time. Cipher does a three cycle write-erase. Cipher is executed from the CMD prompt with the following syntax: ***cipher /w:driveletter:foldername***

The simplest example is to erase all the unallocated space on the C: drive is ***cipher /w:c***. On a disk drive with a few hundred Gb of free space it will take a number of hours to complete.

More information is available on various sites such as,

<https://support.microsoft.com/en-us/kb/315672>

de Stan KD1LE

Strays

Here's the answer to last month's Strays Quiz: the common (to us hams) hobby-related "words" that included these sequences intact.

_ S T	QST
_ R R _	ARRL
_ V A _ _	NVARC
_ I P O _ _	DIPOLE
_ N T E _ _ _	ANTENNA
_ A N D H _ _ _	HANDHELD
_ A T E L _ _ _ _	SATELLITE

___ EDIT ___	DXPEDITION
___ N S C E ___	TRANSCEIVER



Don't expect a quiz or contest every month, but here's an alternative. I got Board approval to try it for four months.

Write a short article for the newsletter explaining the answer to any one question in the license exam question pool for your class of license or the class one above yours. Based on the "QSL sort letter" (e.g., AB1CV, K1JKR, KB1HFT, N1ZRG, W1ESR, WA1TAC) of your callsign, send it to the editor: A-H for September, I-M for October, N-S for November, and T-Z for December.

Prize? You want a prize for this? OK. Whatever gets printed gets one free ticket at the next available monthly meeting raffle. That's worth a buck, right? That's almost as good as getting 7% of your dues back just for writing an article.

Limit, one submission per member. Submission deadlines for publication are 7 September, 12 October, 9 November, and 7 December.

Treasurer's Report

Income for July was \$30 from membership fees. Expenses were \$75.20 for newsletter postage (covering several months), and \$321.46 for Field Day expenses, leaving a net expense of \$366.66 for the month.

If you have receipts for approved Field Day expenses, please get them to me before the September meeting.

Current balances:

General fund	\$2,838.47
Community fund	\$4,886.41

As of 4 August we have 50 members who are current with their dues and 10 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 letting Ralph 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; Ralph deducts 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 8/4/2016

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

Skip's idea for gathering articles for the newsletter was approved: free raffle tickets for submissions of articles explaining exam questions.

Treasurer's Report - food and pin expenses outstanding.

Bo Budinger & Tom Walsh for September meeting. Program on RR communications (Mack Wallace) in future.

Approved \$30 to sponsor a half-page advertisement in the Boxboro program. Stan checking whether it's too late.

Respectfully submitted,
de John KK1X

Club Services

Breakfasts Summer hiatus or not, breakfast at Tiny's in Ayer is always on. We gather at 8am and, no matter what's ordered or how the conversations run, we somehow usually depart within a few minutes of nine. Typical attendance is 12-15. Good food, good camaraderie. Come along.

Tech Night Another activity which continues through the Summer is Tech Night, held at the Community Center on the second Thursday evening of each month at 7pm. NVARC's Tech Night has been discovered

and imitated by other clubs as a means of training. Our Tech Night, though, is not a highly-produced affair—nor is an alternative to the regular monthly meeting. It's more a recurring, informal Elmering session combined with whatever project strikes participants as intriguing. We've had discussions and demos, equipment repair sessions, and kit building sessions.

Calendar

Upcoming Events

August

- 21 Flea at MIT
- 28 NoBARC Hamfest, Adams MA

September

- 9-11 N E Division Convention, Boxboro MA
- 18 Flea at MIT
- 24 NE Antique RC Flea Market & Training Session, Brookline NH

October

- 14-15 NEARfest, Deerfield NH
- 16 Flea at MIT

Upcoming Operating Activities

August

- 20-21 10 GHz & Up (Round 1)
- 21 Rookie Roundup RTTY

September

- 10-12 September VHF Contest
- 17-19 10 GHz & Up (Round 2)
- 24-25 EME 2.3 GHz & Up

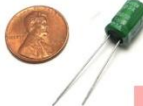
October

- 17-21 School Club Roundup
- 22-23 EME 50-1296 MHz


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Nashoba Valley Amateur Radio Club

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W1ESR

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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.

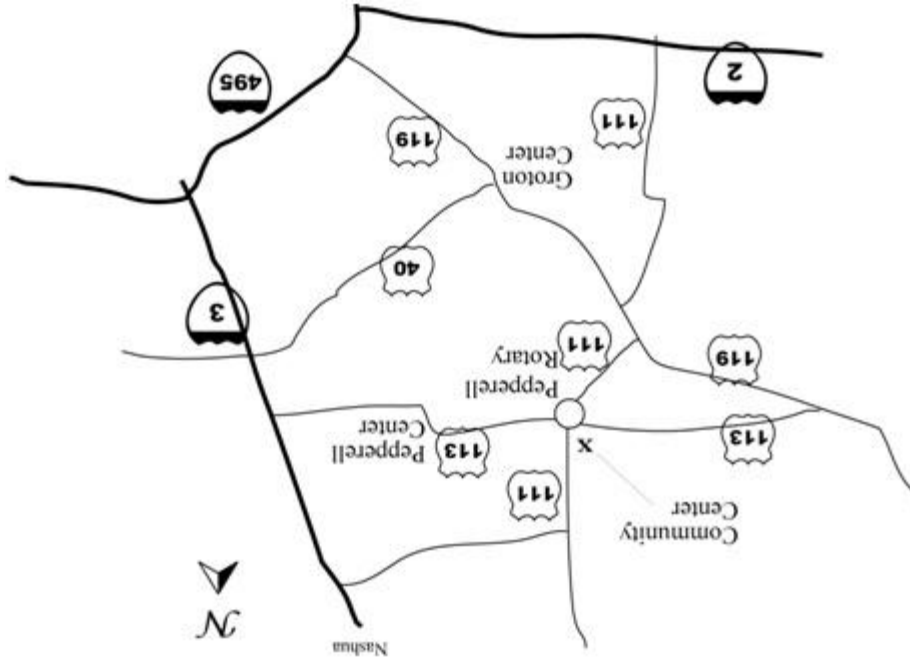
442.900 (+), 100Hz

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.

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