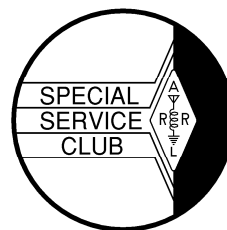




SIGNAL



de N1NC

September 2014 Volume 23 Number 9

This Month's Meeting

This Month's Program

September's meeting returns to the two topic format. As the summer draws to a close, it's time to look back, as we have in the past few years. That's the "minor program." The featured attraction is a tag-team table talk by Peter K1PLH and John KK1X. Each of these NVARC members has been experimenting with several of the new credit card-sized computers. So if you've ever wondered what you can do about computing, communicating, or shack accessorizing for under a hundred bucks, come on along!

Last Month's Meeting

There was no August meeting but the NVARC Cookout took place and the article is elsewhere in the newsletter.

President's Corner

de Skip, K1NKR

Model aeronautics—otherwise known as radio controlled model airplanes—is a hobby very similar to ours. It has a decades long track record of being responsible and of paying close attention to technical detail, operator skill, and system safety. Unfortunately, the post-911 mentality says that if you can do anything out of the ordinary (*i.e.*, have a skill or interest other than buying party supplies and entertainment tickets) you're suspect. Yet, the general population's "party on, Dude" mentality somehow says anything goes.

Have you heard of drones? They are the new high-tech gimmicks that are occupying the airspace—sometimes as an adjunct to the existing

model aeronautics hobby, sometimes just careening around because their owners had enough unused balance on their credit cards to buy a new toy. What's more, these little buggers can easily carry a miniature camera. Somehow this begs for one inappropriate use or another among the party-mentality set. (Plus, with the term "drone" having been co-opted from the military, just about every drone is presumed to be misused.) Well, in an attempt to protect our airspace and bedrooms from dronedom, all remotely piloted vehicles are about to be severely limited. The Academy of Model Aeronautics (AMA, their hobby's ARRL) is leading the defense of sane, responsible use but the organization is up against strong political and economic interests. It all sounds a lot like Amateur Radio's interference battles, antenna battles, and mobile handheld microphone battles, doesn't it?

On the other hand, in the interest of fair reporting it must be said that the proposed regulations are very broad-brush. And that's the rub. Congress dictated that modelers be protected as non-commercial users but "commercial use" includes academic research and even development test flights by mom-and-pop hobby manufacturers. "Non-commercial" sounds a lot like the Part97 definition of Amateur Radio as having "no pecuniary interest." But think back just a few years to the palaver that surrounded defining what non-pecuniary meant with respect to our public service activities. There are certainly going to be unintentionally onerous restrictions placed on responsible users. Balancing "good and necessary" regulation against knee jerk reactions is a tough nut to crack. It takes finesse, foresight, and fortitude. (It takes experience too, but I was really hung up with the opportunity of stringing together a bunch of f-words in an article dealing with Congress without getting myself into trouble.)

We Amateurs have three significant challenges on the table. The first, spectrum defense, most of us are already aware of. We've been defending our

allocations for a hundred years now. And we're pretty good at it. But it takes vigilance—and all those f- words. We can't let down our guard, and we won't do so.

The second is more insidious and few, if any, folks know it's going on. Congress is in the early stages of considering revisions to the Communications Act. Given industry's and the FCC's recent upending of long-learned concepts like the ensuring the priority of primary and secondary licensees over those of unlicensed services there's no telling what the lawyers and marketeers who write the laws will come up with. Don't look for physics, engineering, or lessons learned to prevail just because they make sense. There's money and power involved here.

The third hits home to virtually all of us. We currently have PRB-1, the federal preemption of unreasonable or unnecessary antenna restrictions that local governmental entities might try to impose. PRB-1 was never meant to be a blank check—and it isn't. But it's the most significant tool we have to make sure our stations can be connected to antennas instead of dummy loads. Nowadays though, most new housing construction has restrictive covenants attached to the deeds. Since these are private contracts they are not subject to PRB-1. No problem: buy elsewhere where there are no such restrictions. Sure. Try and find an "elsewhere!" Not your problem? Is there absolutely no chance that you'll ever move?

There's a bill making its way through Congress, HR-4969, would extend the federal preemption to deed restrictions. Check out the ARRL website for background information and suggestions on what you can do to support it, yourself, and your fellow ham. (See www.arrl.org/hr-4969.) One immediate thing you can do is to write your Congressperson. As in all things congressional, the weight of all the incoming letters will be the first thing considered, but I suspect that well-written, considerate letters from responsible citizens will provide more "weight" in generating support than rants will. What would not having an antenna mean to you? Think about it.

I, like most everyone else, tend not to get involved. Logic and reason will win out, right? And in almost every case I'm not directly harmed by some ill thought-out proposal so I just let things slide. Heck, someone else might suffer but not me. But this time I've sent in my HR-4969 letter. I'm **sure** going to suggest you get your HR-4969 letter in, too.

NVARC Cookout



Photo Courtesy of K1NKR
Foreground John KK1X, background Cindy, Jean K1AVM, Bob W1XP, Peter N1ZRG



Photo Courtesy of KK1X
Foreground L-R Bruce K1BG, Jim N8VIM Gene WW4EN our host, Background Peter N1ZRG, Stan KD1LE, Skip K1NKR and Bill K1NS



Photo Courtesy of KK1X

Foreground L-R Karen KA1JVU and Jayne K1BG XYL. Background L-R Bob W1XP, Peter N1ZRG, Stan KD1LE, Skip K1NKR, Bill K1NS



Photo Courtesy of KK1X



Photo Courtesy of KK1X

We thank Gene for graciously hosting our 2014 annual cookout.

Present at the cookout

Our host Gene WW4EN, Skip K1NKR, Bill K1NS, Gary K1YTS, John KK1X, Peg (KK1X XYL), Jim N8VIM, Bruce K1BG, Jayne (K1BG XYL), Bob W1XP, Karen KA1JVU, Larry W1ESR, Cindy (W1ESR XYL), Peter N1ZRG, Stan KD1LE, Dennis K1LGQ, Jean K1AVM, Ken KB1UVP

Brendan Medal

Brian Justin received the first ever Triennial Brendan Medal from EI8GP at the ARRL Convention for promoting 2m Transatlantic communications by setting up and maintaining a 2m high-power beacon aimed at Western Europe. Brian also received a technical achievement award from Dave Sumner, K1ZZ for his UHF and above work including #1 VUCC on 47, 76, 122, 142, and 241 GHz at the convention.



Photo Courtesy of N1SV

Les N1SV

So You Have That!

At Tiny's breakfast this past week I mentioned I had been looking for a piece of equipment for a project I am working on. Of course one of the members there said "I have one of those". I have mentioned from time to time at meetings I have this or that if someone needs one. So this is a trial balloon on a sharing column. If you have something handy or unique that you would lend out or share with your help let me know and I will list it in a newsletter. I will make my own entries for this first month see below.

Wire cutter 30 inch. Not your typical wire cutter. Cuts ¼ inch HSS Guy wire like your diagonal cutters cut #22.

Hydraulic punch. Not a big one. But cuts nice round holes in sheet metal up to a couple of inches in diameter. Various size punches.

Stan KD1LE

Lantern Battery Challenge Operating Parameters Sept 2014

Call them rules

The sixth NVARC Lantern Battery Challenge will start in October. This year we are going back to our roots. So read on. Last year we added a bonus

point system for DX contacts. But this year we will return to a straight QSO total scoring. This based on the feedback on the system we used last year. The final score for this year's Lantern Battery Challenge will be just the total number of QSOs.

We will be using the same lantern battery packs as last year. The batteries will be made up of nine (9) lantern battery cells as in past years. The entry fee will be \$15 as last year to cover the cost of the batteries and provide a little extra for the prizes. The sign up period will close shortly after the September meeting. If you can't make the September meeting please see me or a board member to register for this year's event. Now they say the devil is in the details. So here are the revised Operating Parameters for the 2014/2015 NVARC Lantern Battery Challenge. There are some minor changes so be sure and review them.

Activity Period

The 2014/2015 Lantern Battery Challenge will run from the end of the October meeting, on October 16th, until 0001 UTC March 3rd, 2015. Note the change. This will allow operation in the ARRL SSB DX contest this year.

Bands

All contacts must be made on the normal contest bands of 160, 80, 40, 20, 15, 10, and 6 meters.

Modes of Operation

There are three modes of operation, CW, SSB (including AM), and Digital (This mode lumps all digital modes such as RTTY, PSK, JT-65, JT-9 and any of the other so called "sound card" modes together).

Classes of Entry

There are really twelve.

1. Mixed mode is operating more than one of the three primary modes, CW, SSB, and Digital.
2. CW
3. SSB includes AM
4. Digital, note the computer and display do not need to run on the lantern battery for this mode. Only the radio.
5. Transmit only mode. This mode allows the use of a line powered receiver. Only the transmitter is required to be battery powered.
6. Crystal controlled transmitter. This is the same as 5 above except the transmitter is crystal controlled. This is for radios like the Tuna Tin and Rock Mite transmitters. Pulling the frequency of the crystal is permitted. You can use as many crystals as you have.

Now in addition to these six operating modes there are two antenna classes as explained next. The modes of operation and the two antenna classes combine to provide 12 entry categories.

Antennas

There are two classes of Antennas

General class. Any and all types of antennas with no part of any antenna used for operating in the Lantern Battery Challenge higher than 55 feet above average ground.

Unlimited class. The Unlimited class consists of all other antennas. The purpose of this is to try and level the field between competing stations.

Location

Contacts may be made from anywhere. Fixed, portable, or mobile, just as long as the same battery must be used for all contacts.

Logs

Logs must be submitted with a contact summary sheet (form to be supplied later) at the end of the event. Logs can be readable paper, original or a copy. Electronic logs must be readable with available software in an easy and convenient form. If we can't read it, the entry will be set aside. Logs must contain date and time of contact, station call, mode, frequency or band and contact information. If the contact is made in a contest the contest exchanges is required in the log. For just general QSOs the signal report, name, and state, or province are suggested but not required. For DX QSOs only name and report are required. Note for contacts with stations operating in a contest or DX mode follow the procedure the station is using. Logs are due at the end of the March club meeting. We will try and make arrangements for those that cannot attend the March club meeting to submit their log on line or via US mail.

Scoring

The final score will be the number of valid QSOs. Any and all questions regarding scoring or other event "rules" will be resolved by the NVARC board and their decision will be considered final.

Awards

Awards will be decided by the board upon review of the entries. We guarantee all the fame you can carry home. But we may come up with something like cups, CDs or books. Certainly certificates will be awarded. The idea that everybody that enters is a winner comes to mind. Awards will be made at the April 2014 or later NVARC club meeting.

Entrance Fee

The entrance fee is to cover the cost of the battery provided by the club. It is \$15.00. This is just to cover the cost of the batteries and maybe have a little left over for awards. The fee along with a completed application form is payable at the September meeting and must be paid by the close of the application period to receive a battery. Members that cannot make the September meeting should contact me or a board member to try and make arrangement to pay your fee and submit your entry form. Checks and application forms can be mailed to the club PO Box in Pepperell. We will hold the entrance fee payment period open till Sept 30th to give members that can't make the meeting an opportunity to pay their fee. All entries must use the official battery pack and pay the required fee.

Event Spirit

The spirit of the operating event (we are reluctant to call it a contest) is to work as many contacts as possible on the limited amount of energy in the battery. Working stations with another rig and asking them to stand by and work you with your QRP rig is not in the spirit of the event.

Equipment.

It should be obvious that trying to run any of the modern transceivers on the battery will be short indeed. It will require a low drain radio. There are of course many of this type of radios available. The FT 817 and KX3 are examples. But radios that in general have complicated modern receivers with displays require a lot of current in the receive mode. Even transceivers like the Elecraft K2 and KX3 that have a low current drain mode draw 120 to 150 mills of current and will eat up the energy in the battery in short order. With the small battery it is best to have a plan. Use headphones and keep the transmit power down. Turn off the receiver when you are not actively listening to save battery capacity. I suggest disconnecting the battery when not in use. The battery will probably start to fail in the transmit mode where the current required is higher. Giving the battery a rest to recover can stretch the capacity. Low power rigs with simple low drain receivers will probably have an advantage but that remains to be seen. A big part of this is experimental.

There are those that will say, "Well I don't have a radio and I am not going to plunk down the Big Bucks for some fancy low power radio kit or radio. Well that is one reason for the Transmit only mode. Low power, low drain, simple CW transmitters are little more than a week end project, and they will get you in on the fun. A one watt crystal controlled

transmitter only takes two transistors and can be built in an evening. I have a few boards and we can scrape up the parts for those that may be interested in building their own little transmitter to get in on the fun. (If you are interested, get in touch with me).

Operation with different equipment is encouraged. The only requirement is that any equipment must be powered by the battery supplied. So you are free to try as many different rigs as you like during the event. The same is true of antennas as long as they are in the same class. So it is a good time to experiment with antennas.

Changes

The NVARC board may modify or issue new event rules at any time it feels necessary to the conduct of the operating event.

Main Objective of the Lantern Battery Challenge. Have Fun!

Issued Sept. 17th 2009, revised Sept 2nd 2011, Sept 7th 2012, Sept 10th 2013, and Sept 4th 2014
73 Bob W1XP

WRTC 2014 Fades Away



Photo Courtesy KD1SM

Skip K1NKR manning the winch at the Heald St East site.



Photo Courtesy W1ESR

Les N1SV and his team mounting the antenna



Photo Courtesy KD1SM

Bruce and his team ready the Heald St East tower to be pulled vertical.

August Board Meeting Notes

Back in business for the September board meeting...

In attendance: Skip K1NKR, Ralph KD1SM, Jim N8VIM, John KK1X, Rod WA1TAC, Bob W1XP John brought up the need for more raffle books. Skip and Stan just happen to have a trip to HRO planned. Skip tasked with picking up some books.

Treasurer's report - no income. \$19.60 for newsletter postage, \$450 match for Spectrum Defense Fund.

Property disposition question. The Kenwood TS-450S Xceiver is not working. Bob to check with John Rose to see if he wants to look at it. Otherwise try to dispose of it at NEARFest for some amount of money. Shipping to TX for repair is cost prohibitive.

Summer Study discussion postponed.

Library and Property web pages not yet addressed.

Lantern Battery Challenge - Bob instituted changes back to original rules. Still \$15 entry fee. Proposed opening to MARA, Westford PART, Billerica, and Nashua clubs.

Kudos to Gene WW4EN for a great summer picnic/gathering.

Time to renew membership for John GM3TCW.

Skip to check with Doug Grant regarding a post-WRTC presentation.

Respectfully submitted,
John KK1X

August Treasurers Report

There was no income for August. Expenses were \$19.60 for newsletter postage leaving a net expense for the month of \$19.60 from the General Fund.

A check for \$840 was sent to ARRL for the Spectrum Defense Fund. This represents \$490 in donations of which \$100 was sent directly to ARRL and the Club match of \$450 from the Community Fund.

Fourteen Club members and one meeting guest contributed through the matching grant program. These were Bruce K1BG, John K1JEB, Skip K1NKR, Wolf KA1VOU, Stan KD1LE, Ralph KD1SM, Dan KW2T, Les N1SV, Bill N1TC, Ed N1YFK, Peter N1ZRG, Jim N8VIM, Dick W1LTN, Bob W1XP, and Rod WA1TAC.

Current balances:

General fund	\$2,878.13
Community fund	\$4,386.41

As of 4 September we have 39 members who are current with their dues and 24 renewals outstanding. 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 an Special Service Club, the ARRL expects a majority of Club members to also be ARRL members.

Ralph KD1SM

Tech Night



Photo Courtesy of K1NKR

Above Dan works with Bob AB1CV testing a mag mount antenna that was giving him problems.



Photo Courtesy of K1NKR

Above John K1JEB and Dan KW2T do some testing on Johns radio project.

At the last Tech Night several activities took place. There was a discussion about a "club" building project. Several possibilities were suggested from Pow-erpole distribution boxes to a CW Keyer/Reader.

Subsequent to Tech Night the CW Keyer/Reader was decided on and a number of people indicated to Dan KW2T they would be interested.

Based on some questions that were asked Stan KD1LE brought in from his vehicle the SDR dongle and computer set up that is used when trying to identify and locate HF interference.

Bill K1NS brought in a bag of USB power monitor dongles. If you plugged them into a source such as a computer or USB wall wart they would display the voltage available. Then by plugging a USB device into them the current being drawn and voltage were displayed. They could be used to check for a bad USB port or a device that used too much current from a port. Bill had to purchase a quantity to order them so he sold off the excess at the meeting.

Meeting Coffee "Bar"

Many thanks to Ed Snapp, N1YFK, for his rejuvenating the coffee "bar" at the meetings. There's been an incremental increase in socializing, and that's what we meet for.

Don't forget to leave a donation if you partake.

Strays

From the August 2014 SPARC, the newsletter of the Boston Amateur Radio Club:

"One other treat for me was a high-energy talk on QRP by Dennis Marandos, K1LGQ, President of the New England QRP Club. Dennis just showed a bunch of photos of folks operating QRP, mostly al fresco, with running commentary. Picnic tables were a recurrent theme, and there was plenty of scenery." (Joe Chapman, NV1W, writing in the SPARC President's column about the ARRL Centennial Convention)

NVARC Club Net

The NVARC Club Net meet's every Monday evening at 8 PM on the 442.900 Peppereil repeater.

Stop in and bring your input and questions.

The net is in need of a regular Net Control Station (NCS).

Recently participants talked about the upcoming Field Day, WRTC, the search for a June meeting location,

SDR dongle projects and trouble shooting. Also local interference location and signal identification.

Recent attendees were

Jim N8VIM, Stan KD1LE, Skip K1NKR, Larry W1ESR, Les N1SV, Bruce K1BG, George KB1HFT, Dave N1MNX

Upcoming Contests

Sep

13-15 Sep VHF

20 South Carolina QSO Party

20 Washington St Salmon Run

20-21 10 GHz & Up Round 2

22 144 MHZ Fall VHF Sprint

27 CQ WW RTTY Contest

27 Maine QSO Party

27 Texas QSO Party

October

11-12 EME 2.3 GHZ & Up

20-24 School Club Roundup

November

1-3 November Sweepstakes CW

8-9 EME 50 to 1295 MHZ

15-17 November Sweepstakes Phone

December

5-7 160 Meter

6-7 EME 50 to 1296 MHZ

13-14 10 Meter

21 Rookie Roundup CW

Flea Markets/Hamfests

2014September

12 CT State Convention (Nutmeg Hamfest)

14 Western CT Hamfest, Newtown CT

20 St. Croix Valley ARC Hamfest, Alexander ME

21 MIT Flea (Cambridge)

October

12 CT State Convention, Meriden CT

19 MIT Flea (Cambridge)

November

8 FARA-Fest Bourne MA

2015 August

21 ARRL New England Convention Boxboro MA

Your Article

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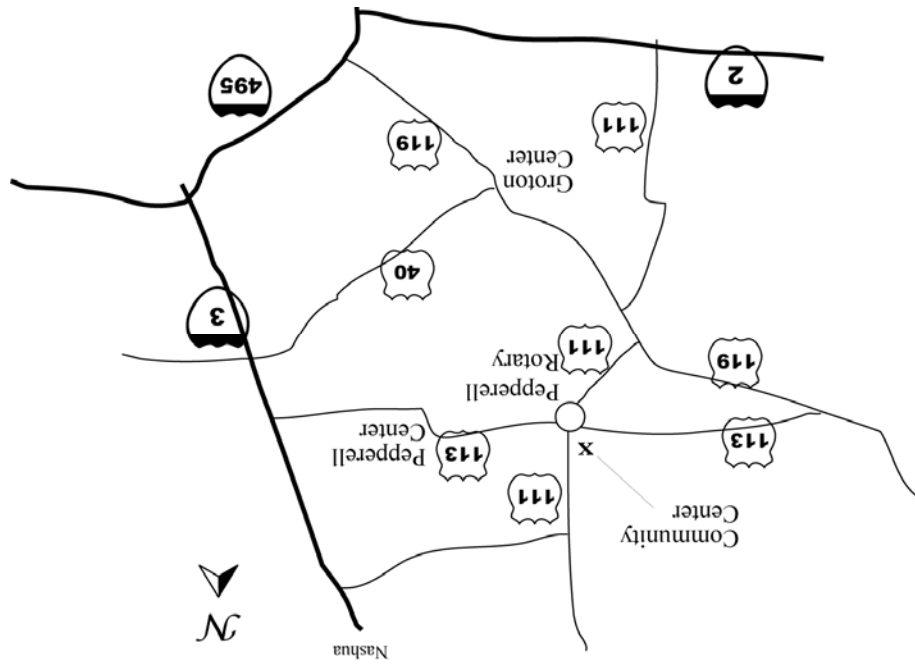
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President: Skip Youngberg K1NKR
Vice President: Jim Hein N8VIM
Secretary: John Griswold KK1X
Treasurer: Ralph Swick KD1SM
Board Members:
Rod Hersh WA1TAC 2012-2015
Bob Reif: W1XP 2013-2016
Wolf Seidlich KA1VOU 2014-2017

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PIO: Roland Guilmet NR1G
Librarian: Peter Nordberg N1ZRG
Property Master: John Griswold KK1X
N1NC Trustee: Bruce Blain K1BG
Annual membership dues are \$15; \$20 for a family
Meetings are held on the 3rd Thursday of the month
7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex
442.900 + 100Hz Repeater battery power
147.345 + 100 Hz Repeater
53.890 – 100Hz Repeater battery power
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