



SIGNAL



de NINC

September 2012 Volume 21 Number 9

Last Month's Meeting

There was no August meeting.

September's Meeting

We'll kick off our new program year with two topics, much as we tried to do last year: one short, informal, and local; the other a highlight.

"What Did You Do Over the Summer?" will be answered by NR1G and K1BG. It's been a not-so-idle summer. We'll have a June Field Day wrap-up and pin presentation, a review of the July dry-run for the 2014 World Radiosport Team Competition, and a travelogue of our second annual August mini-DXpedition for International Lighthouse-Lightship Weekend.

And the highlight presentation will be Bill Barber, NE1B, speaking on what's going on with the conversion of surplus commercial Digital Mobile Radios for Amateur use. Few, if any, of us have probably heard of this aspect of the hobby. Heck, the last time "surplus" was mentioned it had a "WW-II" attached to it! This is not just another interesting form of D-Star. It's an existing standard with an already large equipment base. Plus, there are local DMR repeaters available and they can be linked worldwide.

Skip K1NKR

LBC 2012

Lantern Battery Challenge Operating Parameters September 2012
Call them rules

The fourth NVARC Lantern Battery Challenge will start in October. This year we are making some major changes to the event. So read on. We hope to make the event more interesting and get more people

to take part. The main idea is to reduce the size of the battery and reduce the length of the event. The idea is to limit the battery capacity so more people run out of battery before they run out of enthusiasm for the event. A side benefit of this is that the battery costs will be lower so hopefully that will encourage more people with take part. Some people will be at a larger disadvantage due to the smaller battery. Rigs like the 817, and KX3, although they have internal battery holders are still rather large drain rigs compared to some of the low power and low drain QRP rigs. So to keep it interesting we will award positions for entries using identical rigs. IE if all your QSOs are on an FT 817 and in the same mode as another entry also using an FT 817 and the same mode we will recognize the fact. A contest in a contest. The battery this year will be made up of 9 AA alkaline cells. This should provide about 1.6 amp hours of operation. All cells will be provided by NVARC to guarantee as close to uniform cells as possible. Since there are rigs that have internal battery holders for AA cells, you can rotate the extra cell in and out to try and even the drain. Or you can request a "Battery Pack" and connect it externally to your radio. The exact form the battery packs may take is still under investigation. They may be welded together, or made up of AA cell holders. It looks like we should be able to get the fee down to \$8.00. That is almost half the cost of the lantern batteries. But assembly of the battery packs is going to be a bigger job. So come on everybody and sign up so I'm kept busy.

Now they say the devil is in the details. So here are the revised Operating Parameters for the 2012/2013 NVARC Lantern Battery Challenge.

Activity Period - The 2012/2013 Lantern Battery Challenge will run from the end of the October meeting, on October 18th, till 0001 UTC January 2nd, 2013. Note this allows participation in the Straight Key Night on New Years Day.

Bands - All contacts must be made on the normal contest bands of 160, 80, 40, 20, 15, 10, and 6 meters. Note, 6 meters has been added this year.

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, and any of the other 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 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 (Major change) - 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 in the United States. 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 con-

venient 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 required. For DX QSOs only name and report are required. Logs are due at the end of the January club meeting. We will try and make arrangements for those that cannot attend the January club meeting to submit their log on line or via US mail.

Scoring - The simple number of completed contacts will determine the score. For example ten (10) CW contacts on 80 meters, fifteen (15) digital contacts on 40 meters, twelve (12) SSB contacts and thirteen (13) digital contacts on 20 meters is a mixed mode score of fifty (50) points. The antennas used were all less than 55 ft high so the entry is 50 Mixed Mode points in the General class

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 February 2013 or later club meeting.

Entrance Fee - The entrance fee is to cover the cost of the battery provided by the club. It is \$8.00. 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 before the October meeting 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. We will hold the entrance fee payment period open for a limited period (a few days) after the Sept meeting to give members that can't make the meeting an opportunity to pay their 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 K2 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 smaller 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 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 and Sept 7th 2012

73 Bob W1XP

For updates see www.n1nc.org/Events/2012/LBC

NVARC Club Cookout

The NVARC club cookout was held September 8th at the QTH of Cindy and Larry KB1ESR and was hosted by Peggy and John KK1X.



Larry KB1ESR at the IR Generator cooking fresh corn on the cob



L-R Jim N8VIM, Bruce K1BG, Karen KA1JVU, Bob W1XP, Cindy Swezey, Roland NR1G, George KB1HFT, Cindy Kavanagh, Jeanine N1QIT, Peg Grizwold, John KK1X



Bruce K1BG and Dan KW2T

There was plenty of food and good company as well as radio talk. The weather held out as there were storms and high winds forecast for the day. Just as the last picnickers were leaving it did start to rain.



Larry KB1ESR this is a radio cookout isn't it?



Larry KB1ESR, Roland NR1G and Bob W1XP on Trap measuring.

In attendance Dan KW2T, Cindy and George KB1HFT, Cindy and Larry KB1ESR, Peg and John KK1X, Roland NR1G, Sarah, Bruce K1BG, Lynda N1PBL and Stan KD1LE, Karen KA1JVU and Bob W1XP, Jim N8VIM, Jeanine N1QIT and Ralph KD1SM.

A Giveback Opportunity

Since 2001 we have used the Heald St Orchard conservation land for our Field Days. Through our efforts of cleaning up before our use, following all their requirements, and leaving it like we found it, less the mowed grass we have established an excellent relationship with the Pepperell Conservation Commission (PCC). We don't think much about it now but by the rules the gate is supposed to be locked at all times. In the early years we did that and not everyone drove in which was less convenient and was less inviting to visitors. We also mowed ourselves with regular mowers or members lawn tractors. For many years now Rob Rand of the PCC has done the bulk of the mowing for us and the rules have been relaxed as far as access.

This relationship has also benefited WRTC. The orchard and other conservation land in Pepperell being the first, and probably the easiest sell for

WRTC 2014. It also benefited us when setting up for the WRTC test this year when we found, due to the requirement the tower be aligned north-south we did not have clearance from the trees to put the antenna on the tower. Rob had been visiting to see how things were going (he has also come to Field Day and Field Day dinner). When I pointed out our problem he volunteered to go home and get his chain saw and cut down the trees we needed removed. I suspect Tom Frenaye K1KI (who is also the ARRL NE Division Director) and other members of the WRTC leadership team who were present because of other issues were impressed that he would cut down the trees for us.

Over the years I have cut Poison Ivy around the Field Day site and trimmed some branches for access. More recently I have been working with the PCC trail maintenance people and Rob to open up some of the walking paths. This fall we are going to try to finish up work on the trail that parallels Heald St from the repeater site to the gate where we go in for Field Day.

They will be scheduling a morning, possibly in September, to finish that work. This is targeted at a specific task and is not a commitment to anything else. So if you are interested in giving a couple of hours back for all that we have benefited let me know and I will contact you when the time comes.

Stan KD1LE

The 15th Annual International Lighthouse/Lightship Weekend

<http://www.illw.net>



NVARC tent - Photo courtesy Jim N8VIM



Highland Light - Photo courtesy Roland NR1G

Bruce K1BG organized our second year of participation in the 15th annual International Lighthouse Lightship Weekend event. This annual operating event is held every year on the third full weekend in August. This year it was held on August 18th and 19st.

We returned to the Highland Light (aka Cape Cod Light) in North Truro, Massachusetts.

The club was well represented. Bruce was joined by Roland NR1G, Skip K1NKR, Jim K1PTF, and Bob W1XP. Jim N8VIM and Chris KB1WKI flew into Provincetown on Sunday by private plane, after taking some fantastic photos of our site.

Ralph KD1SM and Jeanine N1QIT stopped by for a visit as well.



Highland Light from the air - Photo courtesy Jim N8VIM

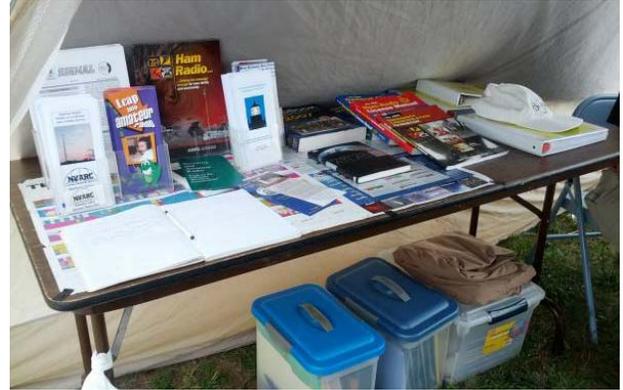
This event was established in 1994 when eleven stations in Scotland established at lighthouses began operating primarily on the HF bands. They made 750 QSOs over that weekend. Between 1994 and 1999 European interest grew as Danish, German, South African, and French lighthouses were added. Thus, the event became truly international and the name was changed to International Lighthouse / Lightship Weekend.

In 1999 there were 204 lighthouse/lightship stations and 36 countries. This year, 2012, 473 Lighthouses (including 19 Lightships) representing 47 countries participated.



View from Lighthouse- Photo courtesy Jim N8VIM

This event is NOT a contest. It is a relaxed and fun weekend without the pressure of a contest. For those NVARC members who enjoy a relaxed kind of Amateur Radio activity it is definitely an event to consider for the future. And the plan is to do this again next year. ILLW next year will be held August 17-18, 2013.



Information Table - Photo courtesy Roland NR1G
We took this opportunity to discuss Amateur Radio with many visitors to the Lighthouse, a few who are Hams. We operated Field Day style, using an ICOM 746 Pro and alternating between a makeshift 20M Dipole and a 80M, 40M, 20M, 15M, 10M Fan Dipole left-over from Field Day past. We had a Field Day style information table about NVARC, the ARRL, and Ham Radio.



Lighthouse - Photo courtesy Jim N8VIM

Our operating tent, as you may have noticed, was within ten feet of the door where the public tours of the Highland Lighthouse begin.



Enjoying the day - Photo courtesy Roland NR1G

We recorded 55 visitors (up from 26 last year) and many more that didn't get recorded in our visitor book. They came from many states: MA, NY, CT, NH, CA, AZ; and many countries Canada, Spain, Italy, Russia, Netherlands, and Sweden. Jim K1LN, Aaron KB1MZQ, and Bob KS6CV were a few hams that stopped by.



Marconi Center Entrance - Photo courtesy Jim N8VIM

Since this is such a low pressure event, Skip took Jim and Chris south to the Chatham Marconi Maritime Center, leaving the rest of us to operate the station.



Photo courtesy Jim N8VIM



Radio Tubes - Photo courtesy Jim N8VIM

The museum is a bit over 45 minutes away and definitely worth seeing. It explains the decades-long history of WCC, the commercial Marconi traffic station. There is a working Amateur Radio station located on the site and is available to be used. Here you can just about always meet Lewis Masson K1LJS, a retired operator at the site who serves as a docent.



Baudot setup - Photo courtesy Jim N8VIM

Lewis loves to demonstrate how to create a MarconiGram using a vintage 5-bit Baudot paper tape punch, tape, reader, and teletype.

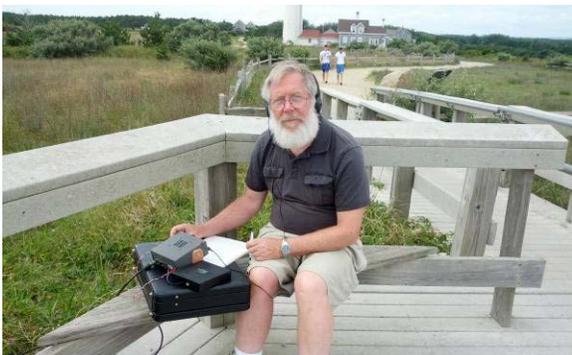


Jim and Lewis – Photo courtesy Jim N8VIM

While Skip, Jim and Chris were away, Bob setup his Elecraft K1 out near the ocean cliff and made three QSOs on battery power using 3 watts and Skip's MP-1 portable HF antenna. Bob enjoyed a nice CW rag chew on 40M with stations in ME, NJ and NY.

This generated some activity as visitors to the cliffs became curious as to what we were up to. Some amazed that "Morse code" is still used.

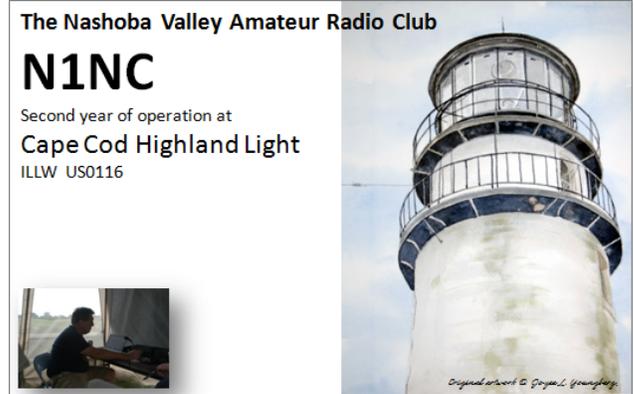
Earlier in the Day Skip used his FT-817 with the MP-1 to make a 2.5-Watt QSO with the ILLW station at Cape May, NJ.



Bob W1XP – Photo courtesy Roland NR1G

Again this year we have generated a special QSL card for those stations that contacted us and the Ham Radio visitors who stopped by and signed our visitor log. Skip's XYL Joyce again used her time on the cape to paint a beautiful watercolor of the Highland Light, this time as a close-up. She has graciously agreed to let us use a reproduction of it for what promises to be a very collectable QSO card. The second in a unique series.

The QSO of the weekend went to Bruce K1BG, long path to Laurie, VK7ZE in Tasmania.



QSL Card - Courtesy Joyce Youngberg

With 88 QSOs under our belt we declared the weekend a success and hit the road for home.

Hope you can join us next year.

73, Roland NR1G

Treasurers Report

Income for August was \$5.08 in savings interest. Expenses were \$18 for newsletter postage, \$20.45 for new check printing, \$155 for Field Day pins, and \$101.76 for the final Field Day reimbursement leaving a net expense for August of \$290.13.

Current balances:

General fund	\$2,432.86
Community fund	\$4,286.41

As of 8 September we have 38 members who are current with their dues and 32 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

Board Meeting

NVARC Board Meeting
8 September 2012

Convened at 0900 at Tiny's Restaurant

Present: Skip, Larry, Ralph, John, Bob, Roland.
Plus Bruce.

1. No Treasurer's report yet. Recent expenses were FD pins and new checkbooks. Upcoming expenses will be for ILLW: \$50 donation (moved, seconded, passed) and \$30 for QSLs (moved, seconded, passed).

2. Meeting programs covered for September (NE1B), October (QSL sort, arrangements confirmed. Skip must invite MARA and PART), December (HB Night), and January (SS Night). Ralph will check availability of radio station chief engineer for November. Bob working on intro to lightning for SS Night, followed by a full-up springtime presentation. Secondary discussion indicated possible interest in external activities: September 2013 VHF Contest from FN51, Museum of Science field trip. NE wireless and Steam Museum's "Steam Up" is 6 October 2012.

3. The non-officer Board Members' Summer Study auditing the club constitution yielded no crises, but some advisable edits. Secondary discussion indicated Stan's interest in publishing the updated Members' Yearbook. But what to do about possible changes to the constitution? Administrative and voting action would probably not be complete before November, or beyond. Publishing now is probably OK, maybe with the constitution as a detached item (members only get update pages anyway so there would be no wasted printing for them and everyone could get a revised/change-paged constitution if or when one is issued). General satisfaction/agreement in posting the configuration-controlled "official" copy of the constitution on the website. Mixed feelings regarding doing so for the history.

4. Following discussion and advice from experienced PS managers, we will reply to the American Cancer Society that we can't support their request for communications for their June 2013 event. We will notify club members of the opportunity to participate on an individual basis.

5. Larry will be attending the Nashoba Valley Emergency Management Agency's meeting in September. He will alert them of a possible funds request for replacement deep-cycle batteries for the repeater. (They've already been generous in funding entire radios.) The Board will address our own policies, plans, etc. regarding repeater support at the October Board meeting.
Adjourned at 0925



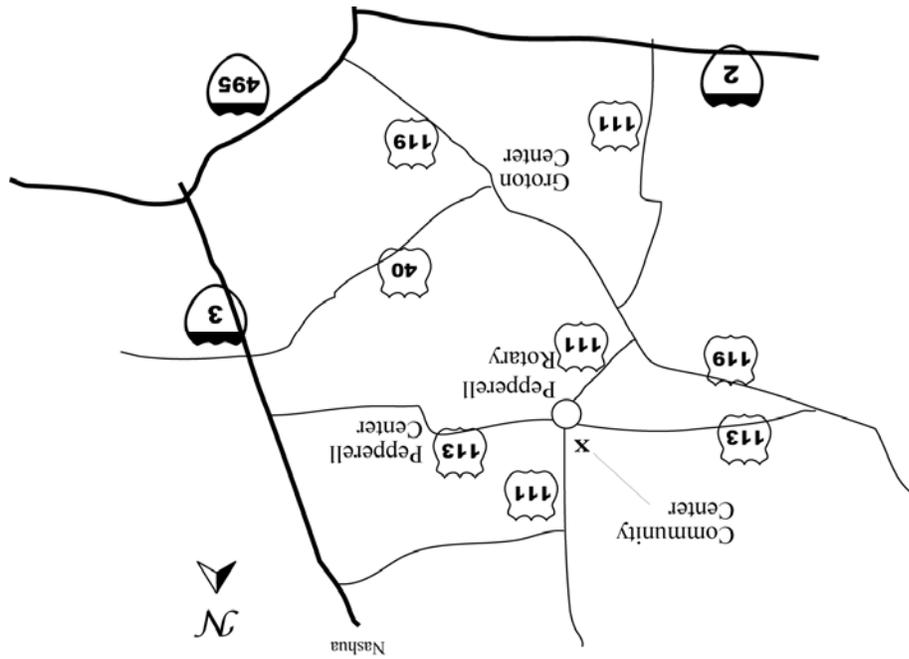
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Amateur Radio Club**

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<http://www.n1nc.org/>

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Treasurer: Ralph Swick KD1SM
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Bob Reif: W1XP 2010-2013
Roland Guilmet NR1G 2011-2014
Rod Hersh WA1TAC 2012-2015

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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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