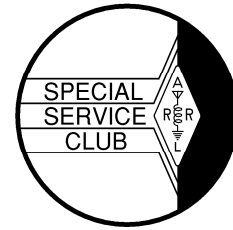


# SIGNAL



de NINC

January 2012 Volume 21 Number 1

## This Month's Meeting

The next regular meeting will be Thursday January 19<sup>th</sup> at 7:30 and will be held at the Pepperell Community Center.

This Meeting is the annual Members Short Subjects Night. Members having a presentation they would like to give should contact Skip K1NKR (or a club officer) so we can plan the meeting. There will be a computer and projector available.

NOTE: The Pepperell Library Book Sale will be March 15-16. That would be our March meeting night. The Community Center Director has arranged for us to hold the meeting at the Pepperell Library as we usually do. Please remind members that you may be in contact with. Also we should plan to clear the library around 9 PM so we should start on time.

## From the President

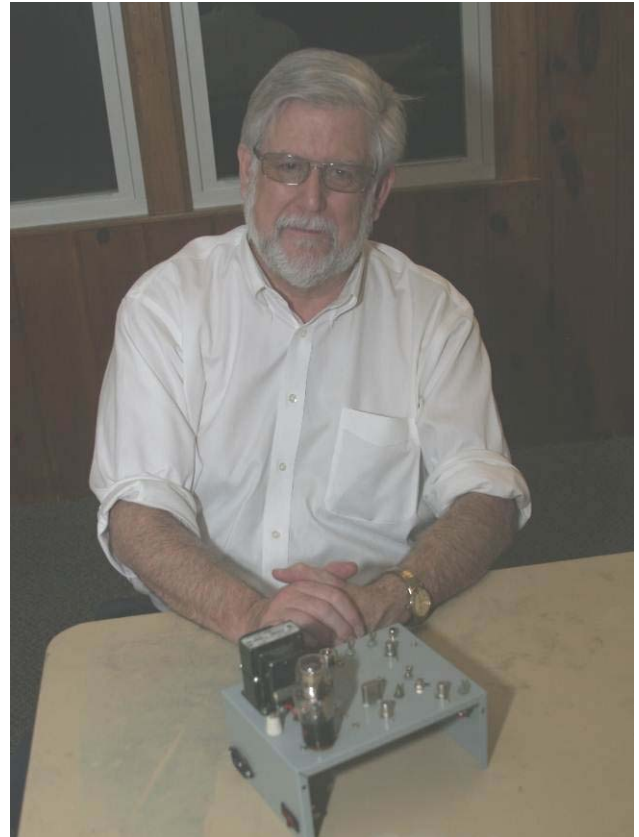
We are starting out a new year and I hope it will be a good one. Coming up are club elections in April. The positions that come up are the officers and one Board member. Consider taking an active role in running the club.

Field Day is less than six months off. Roland NR1G has volunteered to be Field Day Coordinator again so I hope everyone will support him.

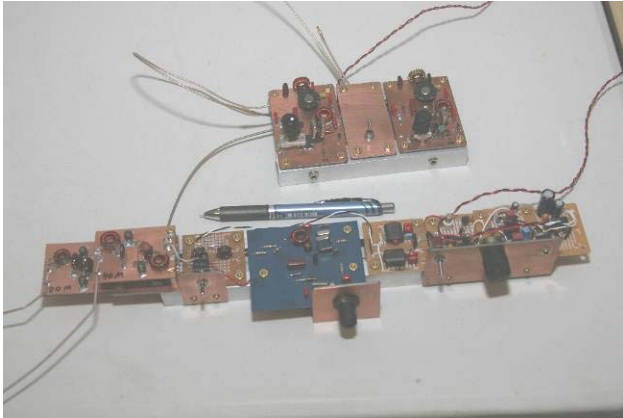
## Last Month's Meeting

The December meeting program was HomeBrew Night. Many members brought their interesting homebrew projects.

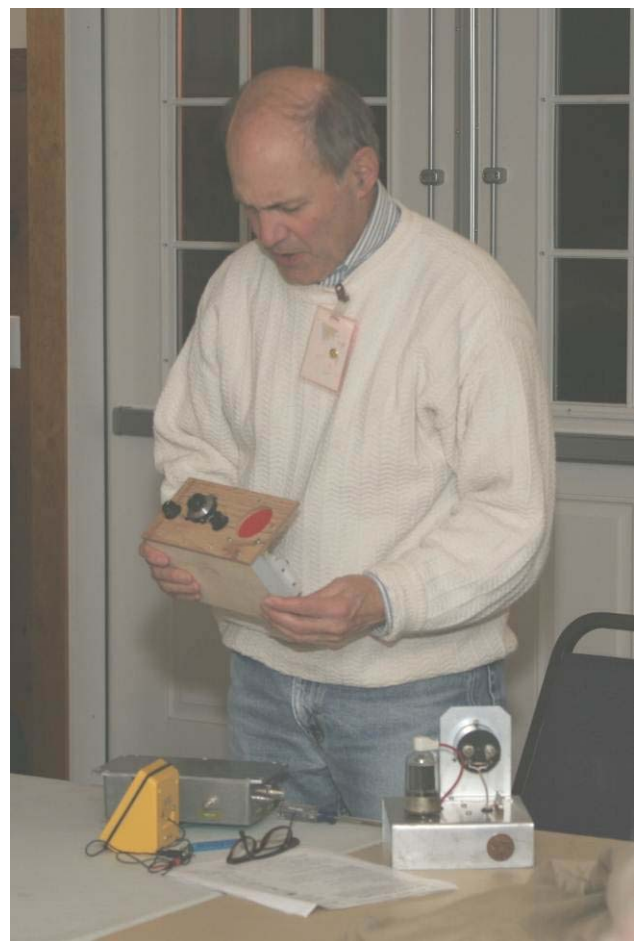
George KB1HFT showed his history of building ham stuff (below)



Dennis K1LGQ showed a SCAF filter kit from NE QRP project.



Bob W1XP showed dual band QRP transmitters and receivers he designed and built (above). He also showed a high power tube filament transformer built from a microwave oven transformer (below).



Rod WA1TAC showed an amplified speaker and receiver kit he built. He also displayed a tube tester he built for a 6146 tube that is common. Also a homebrew T/R switch box.



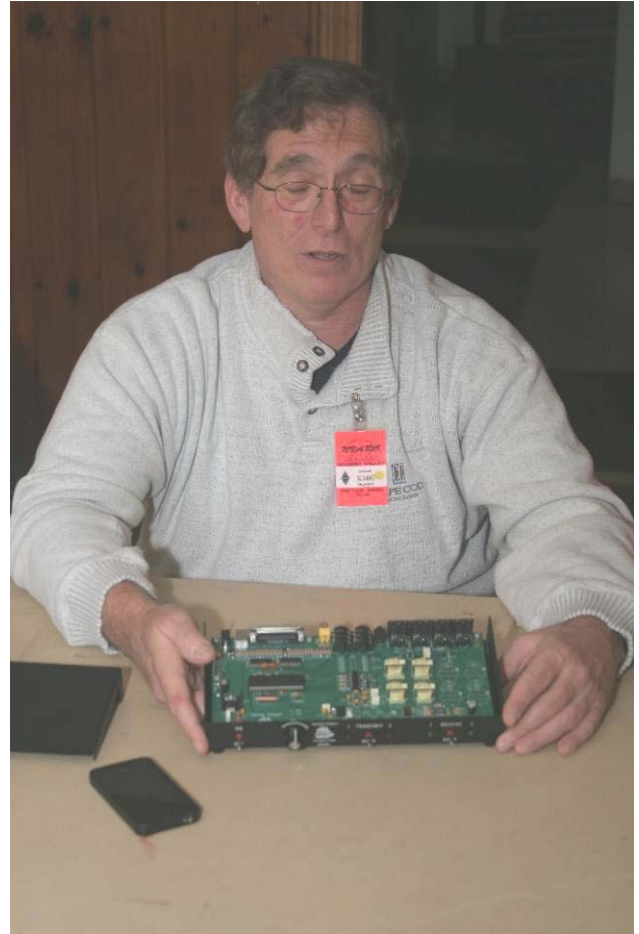
Les N1SV displayed a WIFI antenna made of a coffee can.

Larry KB1ESR talked about getting JT65 operating for himself and Herm WW1HR. No picture.



Above Dan KW2T talked about reviving a transverter project he revived.

Skip K1NKR talked about the pros and cons of guying towers with Phillystran. This was based on the refurbishing of his tower. No picture.



Above Bruce K1BG showed a SO2R controller kit he built that was designed by YCCC.



Above Roland NR1G showed the tennis ball launcher he built for putting up antennas. It is powered by air and has a removable barrel for transport and so that he has the option of different lengths and diameters.

We had a brief discussion at the end of the meeting on supporting WRTC. The Board suggested bringing this to the members to see what support there would be. We have made no commitment at this point and felt we needed more information from the WRTC Committee before we could actually commit. There was general support from the members to support this event and that it was good for Amateur Radio and would also be fun.

attendees:

K1ABM, Bruce K1BG, Ken K1JKR, Dennis K1LGQ. Skip K1NKR, Gary K1YTS, KA1QL, George KB1HFT, KB1UVP, Stan KD1LE, John KK1X, KW2T, N1HVA, Les N1SV, Peter N1ZRG, Jim N8VIM, Roland NR1G, NW1U, Dick W1LTN, Rod WA1TAC, Herm WW1HR.

### Strays

By Skip Youngberg

January 3, 1906. The first two-way transatlantic wireless telegraphy is initiated between Brant Rock, Mass., and Machrihanish, Scotland.

January 21, 1904. The first military radio experiments at the Eiffel Tower are conducted. Gustave Eiffel offered the French army use of his structure to save it from destruction after its initial permit expired.

January 28, 1886. Birth date of Hidetsugu Yagi, [inventor of the directional shortwave antenna that bears his name].

credit: The Institute (IEEE), December 2011

### 75/80m Monster Antenna Arrays

Les Peters, N1SV

Ever wonder what's behind some of those loud 75m SSB signals you hear out of Europe and beyond, I was. Years ago when I first installed my 75m four square array there were very few yagis in use on the band and those that were either used wire elements or loading coils. With a full size element measuring

approximately 123-feet, the logistics of putting up one of these monster yagis that utilize full-size elements and more importantly keeping it in the air, seemed a fool hardy task for any sane person. Very few commercial companies even sold these types of antennas requiring people to homebrew their own if they really wanted one. Since then more and more stations have added rotatable 75/80m yagis to their stations and some of these monsters really push the envelope. Here is a look at three such antenna systems.



**2-element yagi @ G0EVY**

The first comes from Dave, G0EVY who can be found nightly just below 3.800 MHz holding court with his S9+40 to sometimes +60 dB signal from England! This yagi was designed by AA4MM and uses full-size elements made from four inch diameter tubing on a 90-foot boom. The most interesting aspect of this antenna is the use of a surplus 150-foot commercial crane as the antenna support. Dave says while he's experimented using this yagi at different heights, it seems to work best toward North America at approximately 140-feet. One drawback of this antenna support however is that the antenna must be lowered in 30+ knot winds. In the photo, the antenna is in a nested (lowered) position. While this antenna can be rotated it's not that convenient as Dave points out that he has to go outside and warm up the crane before he can slowly reposition it. He has however installed relays that provide 180-degree direction switching where he can demonstrate an approximate 25 dB F/B here in North America.



### 80m / 160m yagis @ OH8X

This second monster 75/80m antenna belongs to the Radio Arcala contest group in Finland. In the photo the top antenna is a 5-element 80m yagi and spaced 10m below it is the 3-element 160m yagi on a 330-foot rotating tower! Both antennas use full-size elements with each utilizing triangular booms measuring 2.2m (7.3 feet) on a side. The 80m boom is 200-foot long with an advertised gain of 15.7 dBi. Needless to say OH8X is loud on the low bands during contests! For more information on this antenna and others including [www.radioarcala.com](http://www.radioarcala.com).



### 5-element yagi @ 7J4AAL (above)

And last but not least is the monster 75m array found at 7J4AAL in Hiroshima Japan. When I first put up my 75m four square array in 2000 Kon, 7J4AAL had the biggest 75m yagi in the world and it continues today to be a real performer. This yagi uses five full-size elements on a 42m boom installed on a 44m high tower. Kon can sometimes be found in the 75m DX SSB window (3.79 – 3.8 MHz) in the evenings after our local sunset on the long path during the winter months (when conditions are favorable). Kon with his potent signal of sometimes S9+20 to +25 dB continues to be the long path beacon from South East Asia here.

### NVARC Net

The NVARC net meets on 442.900 N1MNX repeater Mondays at 8:00 PM. The net is for sharing information and asking questions.

Bring your questions and topics for discussion so that we can all learn something.

Recent discussions have been antenna work, operating JT65, and helping others get on the air.

Recent Check in's;

N8VIM Jim NCS, K1NKR Skip, N1MNX Dave, KD1LE Stan, NW1U Paul, KB1HFT George, NR1G, Roland, W1LTN Dick, K1YTS Gary, KB1ESR Larry W1XP Bob, K1BG Bruce.

### PSLIST

See [www.n1nc.org/Events](http://www.n1nc.org/Events) for the latest information

### Board Meeting

The Board meeting was held January 5th this month. The upcoming meeting programs were discussed.

Ralph submitted the Treasurers report.

Club mailbox fee is coming due. The cost is \$70.00. The board approved the expenditure.

Bruce is going to look into the WRTC for updates.

We looked at the Field Day computers and talked about what software should be installed beyond N1MM.

John is going to put together a list of books that we can choose to buy for the book raffle.

Larry reported Groton Emergency Management has resumed meetings. He is also looking for Groton member to join.

There was a request/proposal that the Tower Consortium supply the tower trailer to support the antennas for the special event station at the Boxboro Convention which is coming up this summer. If this happens should we ask for a free club table nearby to promote the club and sell items for club members?

Ralph mentioned in his email that Doug K1DG will be talking about WRTC at the next MARA club meeting.

Elections are coming up in April. The four officer positions are up for election/reelection and one board member position is up for election.

In attendance were Stan KD1LE, Larry KB1ESR, John KK1X, Bruce K1BG

### Treasurers Report

Income for December was \$45 from membership dues and \$10.14 in bank interest. Expenses were \$17.60 for newsletter postage, leaving a net income for December of \$37.54.

Current balances:

|                |            |
|----------------|------------|
| General fund   | \$3,404.54 |
| Community fund | \$4,286.41 |

As of 4 January we have 42 members who are current with their dues and 23 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

### NVARC Swap Shop

FREE for the taking.

Item one: Historical 1940's-vintage dynamotor power supply. 12VDC input. Dynamotor rated at 400V/180mA. Not much info on it, but one of the chokes has a Collins nameplate on it.

Item two: Antique Radio Classified magazines, January 2010 through December 2011.

Item three: Radio Amateur Callbook, Fall 1950.

Item four: ARRL Spread Spectrum Sourcebook.

Contact Skip after the Monday night net or via K1NKR@arrrl.net.

### ARRL Letter

*On the Air.* The ARRL January VHF Sweepstakes Means Winter

Contesting Fun for Everyone VHF operators will be on the bands in force the week-end of January 21-23, as the ARRL January VHF Sweepstakes hits the air-waves. This contest gives the



Stuart Turner, W0STU, of Monument, Colorado, participated in the 2011 ARRL January 2011 Sweepstakes -- his first contest ever! Turner operated portable from the top of Mount Herman near his home. "I had some troubles with my hastily homebrewed 6 meter dipole -- I should have checked it out better before the contest," he said. But I still snagged several 6 meter contacts and grids. I had a blast contacting a herd of recently licensed technician boy scouts from my local Troop 6 in Monument. Overall, this was a terrific and exciting day for my first contest experience." [Photo courtesy of Stuart Turner, W0STU]

VHFer in all of us a chance to do some contesting

during the winter months. "Don't let the cold weather in much of the US dissuade you from getting on the air," said ARRL Contest Branch Manager Sean Kutzko, KX9X. "Many a portable or Rover operation has done just fine in January. While propagation enhancement can seem fleeting in January, there have been some monstrous openings during this contest in years past. Who knows? Perhaps the propagation gods will grant us a late holiday gift with an extended aurora or tropospheric event!"

**FCC News: Radio Amateurs Not Affected by Narrowbanding Requirements**

The FCC released a [Public Notice](#) on January 6, reminding land mobile licensees, frequency coordinators and equipment manufacturers that they have less than one year to transition to narrowband operations in the 150-174 and 421-512 MHz bands. While the latter frequency range includes amateur service allocations, radio amateurs are not affected by the narrowbanding requirement. Land mobile operation is permitted in parts of the 421-430 MHz band in the areas around Detroit, Cleveland and Buffalo, and land mobile licensees in these areas are among those who will have to migrate to narrowband (12.5 kHz or narrower) technology by January 1, 2013. Amateur operation is not permitted along the Canadian border (north of Line A as defined in the FCC Rules) in the band 420-430 MHz.



### 2011 Flea Markets/Conventions

02/04/2012 WinterFest 2012 Augusta ME  
 02/25/2012 Vermont State Convention, (HAM-CON) South Burlington ME  
 08/12/2012 NoBarc Hamfest 2012 Adams MA

### Advertisements

Your advertisement could be here.

Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.



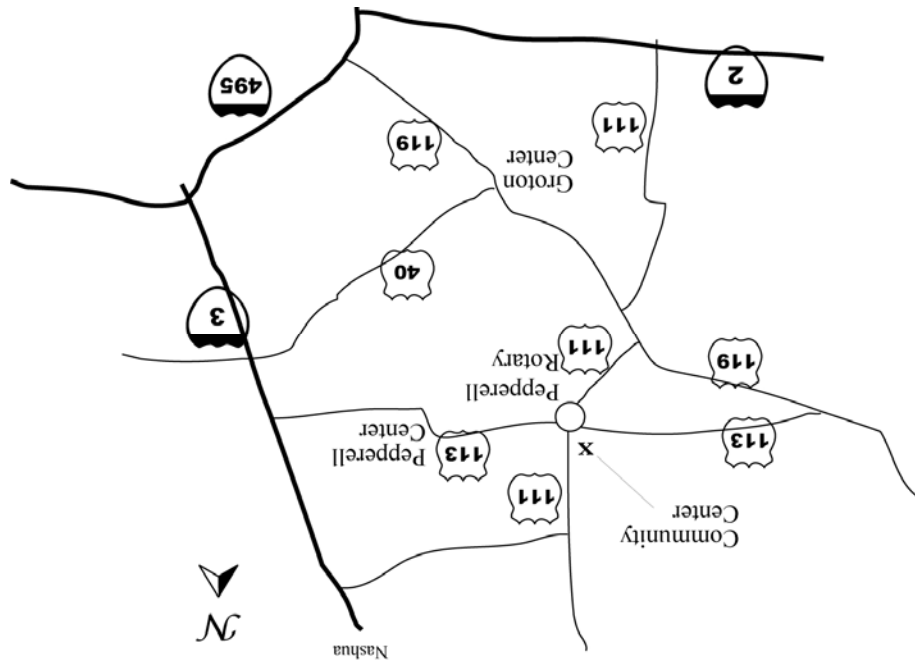
## Nashoba Valley Amateur Radio Club

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

President: Stan Pozerski KD1LE  
 Vice President: Bruce Blain K1BG  
 Secretary: John Griswold KK1X  
 Treasurer: Ralph Swick KD1SM  
 Board Members:  
 Joel Magid W1JMM 2009-2012  
 Bob Reif: W1XP 2010-2013  
 Skip Youngberg K1NKR 2011-2014

Editor: Stan Pozerski KD1LE  
 Emergency Coordinator: Larry Swezey KB1ESR  
 Photographer: Ralph Swick KD1SM  
 PIO: Dave Peabody N1MNX  
 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  
 This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.  
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