



# SIGNAL



January 2000 Volume 9 Number 1

## This Month's Meeting

Dan Norton W1FX will be giving his presentation on PSK 31 at the Jan meeting. To accommodate his schedule he will speak at the very beginning of the meeting.

The February meeting speaker will be Terry Stader KA8SCP MEMA Area 1 RACES Radio Officer.

The March meeting will be a QSL card sort. Burt W1ZS the W1 QSL Bureau Manager who lives in Vermont will bring cards down for us to sort.

If you have a show-and-tell type of thing or a story you can share bring them along to any meeting.



## Last Month's Meeting

Last month's meeting was Homebrew Nite. There were presentations by a number of members of their projects. Some members who did not have projects did short presentations on what they were doing in ham radio. See the article and pictures elsewhere in this issue.

The Membership Committee passed out survey forms and many people filled them out at the meeting. We will be enclosing blank copies of the survey in the next issue of the Signal. People who already filled one out don't have to fill out another one. But if they feel they didn't have enough time at the meeting to do a good job or have had some additional ideas they should feel free to submit another one.

Erik passed out medals to Wolf, Karen, Bob, and Stan that were awarded to those who supported the Groton Town Forest Trail Race



## Winter Contest Schedule

There are a few contests coming up during the Winter months. Dxpedititions often take advantage of contests by activating a rare location. If you want to pick up a lot of regular places fast a contest is a good place to do it. You can also look for those rare places who often publicize the bands and frequencies they are going to be using. In either case you can use the contests to your advantage even if your not a contester yourself.

**February** 19 - 20 [ARRL International DX Contest CW](#)

**March** 4 - 5 [ARRL International DX Contest Phone](#)

There are other contests and special event stations virtually every weekend and they are listed in the QST Contest Coral and the Special Event Station listing.

## License Restructuring

Well its finally over. After what certainly must be close to two years the final Report and Order 99-412 was released December 30<sup>th</sup>. All in all the changes are pretty simple. As of its April 15<sup>th</sup> effective date there will be only three license classes issued. No additional Novice, Technician Plus, or Advanced licenses will be granted. Everyone will keep their current license class and privileges and they will continue to renew at the current class. To simplify record keeping the Technician and Technician Plus class data will be merged. It will be up to the licensee to maintain proof of the 5 WPM credit by holding on to their license if it showed Technician Plus or the CSCE for the test element. That could be important since a Tech Plus licensee need only take the General written element to upgrade to the General class license.

Under the new plan there will be one 5 word per minute CW test (element 1) and that will be for the General class license. There will be one written test element for each of the three classes (Technician element 2, General element 3, and Amateur Extra element 4).

By not changing any license privileges the FCC bypassed most of the work that might have resulted from the proposed changes. This way there are no license conversions and over time

with license expirations and upgrades the Novice and Advanced class licenses will disappear simplifying the FCC databases.

There were several other minor changes. RACES station licenses will be eliminated. This will be done by not renewing licenses when they expire. Advanced class licensees will be allowed to VE General class license exams.

More info and pointers to the full R & O is available at <http://www.arrl.org/news/restructuring/>

## License Classes Anyone?

With the above license changes effective April 15<sup>th</sup> there is an opportunity for some to upgrade with only written exams. Novice licensees can upgrade to General by passing the current Technician and General written elements. Likewise Technician Plus licensees can upgrade to General by only taking the General written element. Advanced licensees can upgrade to Amateur Extra by passing the Extra class written element. These upgrades would become effective after submitting a form 605 with the CSCE and paying the current fee to a VE after the effective date of the new rules.

This situation has prompted the question is there anyone who would like a class or help preparing for one of these exams? Do we have volunteers to teach?

## Public Service

Though not strictly Amateur Radio two NVARC members have been active providing Search and Rescue support to various agencies with the Central Massachusetts Search and Rescue Team (CMSART). Since getting involved in this activity the past Summer Ralph and Stan have been involved in numerous searches and exercise supporting local police forces, the Massachusetts State Police, and the Massachusetts Department of Environmental Management (Park Rangers.) The searches have been as close as Lunenburg and Fitchburg and as far away as Wilbraham and Whately. There have been searches for children, the elderly and evidence. It is a spur of the moment type activity with calls coming at any time. There have been calls during the day, at ten o'clock at night, and at five o'clock in the morning. There have been searches that were called off

before we got there and searches that took several days. It has taken a bit of work just to be prepared since you can't start packing when you get the call. You have to be ready for rain or shine, sunny or dark, hot or cold. It's been a lot of work in the field also. Seldom is a trail or road useful except as a starting point or reference to your location. All the real business of the searches is real off-roading. The search teams appreciate the benefits of having radio communications but until these two NVARC members arrived they did not know how to get started with ham radio. The radio operators do need to be searchers too, since that is the main priority. It looks like at least several members of the CMSART group will become licensed amateurs. They were already interested and the fact a recent search we participated in for the State Police was coordinated by hams from another team on amateur radio probably didn't hurt either.

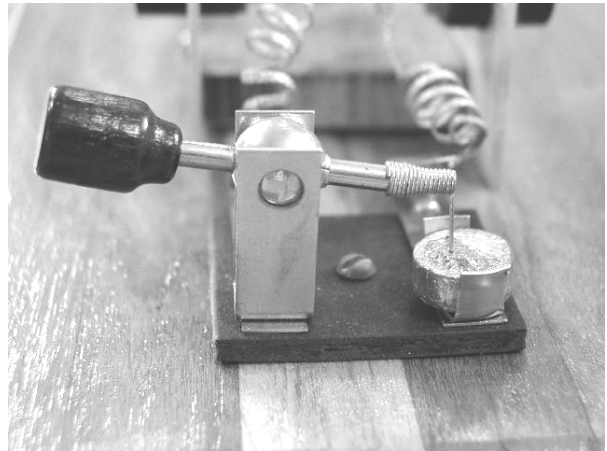
Stan

### HomeBrew Night

The December meeting was our traditional "Homebrew Nite". Many people brought along their projects.

Russ WR1Y brought his projects which were a combination of woodworking, machining, and antique radio. His tuning circuit, interrupter, and antenna were something to look at as well as use. Nice job Russ.

The first picture is the home made switch used to select windings on the tuner. The second picture is Russ with the antenna and tuning circuit. The third is the cat whisker assembly.

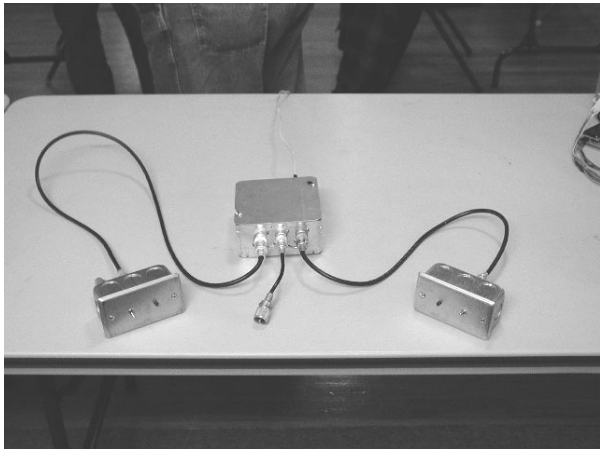


Craig N1ABY brought his solution to a mobile antenna problem of antennas and mounts having different threads. Not finding a commercially available part spurred him to machine his own.



Ralph KD1SM brought a PIC project that converts GPS position information to six letter Grid Squares.

Bob W1XP demonstrated a 3-way switch for an antenna feed for his two meter handheld. This circuit switched the antenna feed between two locations from either location so he could move his rig between the two locations without patching the antenna manually from one place to another.



San KD1LE showed a portable mast system and fold up two meter ground plane antenna he made for portable as well as emergency use.

We also had a hotdog stand provided by Dave N1MNX for those who needed a snack or missed supper to get to the meeting on time. For desert there were cookies baked by N1PBL.



After the presentations and the hot dogs everyone got to check out the projects close up and asget their questions answered.



Thanks to everyone for their participation.

### W1 QSL Bureau Reminder

Effective on January 1, 2000 the Bureau will no longer accept envelopes and stamps as credits for an account. With the changing cost of postage, the variety of sizes of DX QSLs, and the total volume of amateurs using the bureau it is to everyone's advantage to make this change. It saves much time for the individual sorters as well as being less expensive for the individual amateurs who use this service. There are no fees or profits for the bureau. Each shipment results in a charge of 10¢ for the envelope and face value for the postage to mail it to any destination requested by the individual. With each shipment the individual will receive not only the QSLs but also an itemized statement of the balance in their account. We look forward to working with you for the next half cen-

ture !! For information about using the bureau or any questions about your account please email to [w1qsl@yccc.org](mailto:w1qsl@yccc.org) or check it out at <http://www.arrl.org>. You may also write to the W1QSL Bureau, PO Box 80216, Springfield, MA 01138.

-- 73 Tom/K1KI and Mike/K1TWF

*Remember that the club pays to send out QSL cards through the ARRL Outgoing QSL Bureau. The only requirement is that you be a League member. If you have outgoing cards bring them and an address label from your QST Magazine to a meeting and give them to Bob W1XP our Outgoing QSL Manager.*

### Membership Committee

The membership committee will be continuing with the survey that was passed out at the last meeting. Many people filled them out and returned them at the meeting. They are including a copy of the survey in the newsletter for those who did not attend the meeting. The survey has several purposes. Most important for the committee is input from the members on the things they would like to see the club do. We will also update member data from it. If you did not complete the survey at the last meeting or you did not attend we encourage you to fill this one out and return it at the next meeting. If you already completed one but have additional thoughts you may add them to this one and just fill the name area so we can merge it with the original. Give the form to Stan, Dave or Les at the next meeting.

### Y2K Homebrew Preparations

QST had an alternator project in the June 1998 issue. It looked like a good project and it seemed like it would be an inexpensive source of twelve volt power being that you can probably come up with the engine and alternator for free if you have the right connections. I had researched several other designs. The two basic designs are based on either a horizontal shaft motor or a vertical shaft motor.

Most of the other differences were in the peripheral circuitry. Some had controls for protection and things like voltmeters, ammeters, and circuit

breaker arrangements. The only thing we decided we wanted was to be able to monitor the current out of the alternator. A mechanical ammeter would be an easy solution but we thought that because of the environment and vibration that a solid state device would be better. We decided we didn't need a lot of resolution so an LED bargraph would probably work fine.

Well if it weren't for dead lines nothing would ever get done. With the pressure building for the Y2K rollover and Winter Storms Bob W1XP and I started the project. More correctly Bob started the project by getting a motor, cleaning and preparing it and ordering parts. I procured an alternator and miscellaneous other parts. A wooden base was built and the components mounted. After dealing with the alignment of the pulleys which was causing the belt to jump off at the application of the load we got it working. The bargraph current meter fell by the wayside in the end of the year time crunch and was replaced by an off the shelf automotive ammeter.

The unit works fine and is set up with battery cables to charge batteries for a situation like keeping the repeaters going during an extended power outage. It delivers up to forty amps in the tests we performed.

So although it was up to the wire for the Y2K rollover disaster that never happened. I have my homebrew project finished for the Y2K homebrew night which is only eleven months away.

Stan KD1LE

### Ham Clubs in New England

Some info from Tom Frenaye on clubs in N.E.

Number of active clubs: 137 (incl. 4 regional clubs, 13 school clubs and one club council)

Connecticut	36
Eastern Massachusetts	40
Maine	14
New Hampshire	16
Rhode Island	9
Vermont	10
Western Massachusetts	12

Clubs with club callsigns 116

Total number of club members 9637

Percent of club members who are ARRL members 65.0%

Clubs with the earliest ARRL affiliation.

Worcester Polytechnic Institute	12/30/1920
Providence Radio Association	12/9/1921
Portland Amateur Wireless Assoc	3/15/1930
Falmouth Amateur Radio Assoc	7/16/1931
ARA of Southern New England	12/21/1931

Number of clubs who are currently designated as ARRL Special Service Clubs: 21 (15.3%)

**From the ARRL Letter**

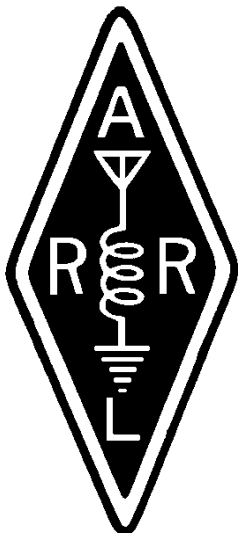
**VENEZUELAN HAMS ACTIVATE IN FLOODING DISASTER**

Word from Venezuela is that hams activated early on during the flooding and mud slide disaster that struck that country's Caribbean coast December 16.

"The emergency is by all means the major disaster that ever happened in Venezuela in modern times, and there is an ongoing need for further communication support," said Pedro Seidemann, YV5BPG.

Seidemann says Radio Club Venezolano club station YV5AJ and national emergency net station YV5RNE are on the air on the official emergency frequency 7090 kHz as well as on local 2-meter repeaters and monitoring 146.580 simplex.

Initial flooding following several days of sustained rainfall was exacerbated by mud slides resulting from overflowing creeks coming down from the Avila mountain range. "Mud slides, some high in the mountains, were the major cause of the disaster in this part of the country," Seidemann said, noting that the sustained rains are considered "rather unusual" in that part of the world.



Officials say the death toll in the flooding and subsequent mud slides could go as high as 20,000. Seidemann said countless people are still unaccounted for, and—especially in

the seacoast area near Caracas—many bodies have been buried by thick mud.

"Venezuelan Civil Defense organization and Conatel—the national telecommunication administration—and the Red Cross have asked RCV for its urgent ongoing support in the seacoast townships near Caracas," Seidemann said this week. Hard hit are the Barlovento area east of Caracas and the Falcon State in northwestern Venezuela. "There, local radio communications have collapsed, and highways are cut. Large areas are without electricity." Seidemann said the power outages also are affecting telephone service.

Seidemann says RCV is focusing its communications support toward these two disaster areas, where flood survivors remain in isolated regions.

Just before the disaster, RCV had tested its facilities on HF and VHF to check for Y2K compliance. As a result, Seidemann says, RCV already was in a state of readiness when the disaster struck. RCV has acknowledged the cooperation on 40 meters of foreign stations in avoiding the Venezuelan Emergency Net frequency.

Seidemann indicated a need for additional Amateur Radio gear in Venezuela.

Elsewhere, the Salvation Army's SATERN has set up a health-and-welfare network accessible via <http://go.to/satern>. Salvation Army volunteer Quent Nelson, WA4BZY, in the Atlanta area has been coordinating the H&W operation. Nelson has established direct contact with Mike Anson, YV5/VE7AMV, who is within two blocks of the catastrophe in Caracas, Venezuela.

**HAMS HELP SOLO ATLANTIC ROWER**

Hams in Barbados and on the high seas assisted solo Atlantic rower Diana Hoff last month.

Hoff, an eye doctor from Scotland, and Tori Murden, a lawyer from Kentucky, both left Tenerife in the Canary Islands September 13 trying to be the first woman to row solo across the Atlantic to Barbados. Murden, 36, in her boat American Pearl, arrived in Guadeloupe December 3—the first woman and the first American to complete the solo row. When she reaches her destination, Hoff, 55, will become the oldest person to ever row an ocean solo. As of December 19, Hoff had another 500 miles to go on the approximately 3000-mile transatlantic journey in her 22-foot boat Star Atlantic II. Early this year, Hoff's daughter Elisabeth failed in her attempt to make the solo

failed in her attempt to make the solo crossing in a similar vessel.

On November 12 and still 1000 miles from her goal, bad weather, wind and sea conditions forced Hoff to put out her sea anchor and remain almost stationary. Hoff's husband, Stein, in Norway sent her position to Trudi Smyth, 8P6QM, who runs the Transatlantic Maritime Mobile Net. 8P6QM relayed the information to Geoff Green, G3ZNV/mm, who was crossing the Atlantic aboard the 617-foot luxury MSY Wind Surf, also bound for Barbados.

By November 22, Wind Surf was in position to rendezvous with the still-marooned Hoff. "Despite heavy swell conditions a boat was lowered from Wind Surf and a line established with Diana to enable her to take on fresh supplies, also a replacement 'world radio' and cassette player, together with Christmas greetings, papers and books," Green recounted.

Green said that following an emotional farewell, Wind Surf hoisted her 26,000 square feet of sail and continued under way, wishing Diana and Star Atlantic II "every success and Godspeed" in her quest.

"It certainly was an experience meeting up with her in mid-Atlantic," he said. For more information on Hoff's transatlantic progress, visit <http://www.oceanrowing.com>. This site contains links to other sites with updated information on Hoff's journey.—Geoff Green, G3ZNV

#### AMAZON QUEEN 2000 AMATEUR RADIO EXPEDITION READY TO SAIL

Phil Gonzales, HK3SA, reports his Amazon Queen 2000 ham radio expedition is nearly ready to get under way. Gonzales says the four to five-month long journey aboard the 47-foot wooden Amazon Queen will cover almost 3000 miles—from Iquitos, Peru, to the Atlantic Ocean near Belem, Brazil.

Gonzales told the ARRL he expects the expedition to begin the second week of January, but crew members might be on the air as early as the first of the year. The expedition hopes to use the call sign 5K9AQ, although Gonzalez said that was not certain, and the actual call sign could be different.

Gonzales says the purpose of the voyage is to bring the world together through the use of Amateur Radio and the Internet. "We will be transmitting daily photographs from the voyage," he said.

The crew will be active primarily on HF SSB and plans to check into the Intercontinental and Maritime Mobile Net on 14.300 MHz "every few hours." The expedition will maintain schedules with several other nets as well. The primary operating frequency will be 14.347 MHz. Other frequencies include 7.0935 (Amazon Net frequency and outside the US phone band—Ed), 21.287, and 28.400 MHz.

The Amazon Queen 2000 Expedition is interested in setting up schedules with schools on SSB or other modes. Gonzalez said he hopes to have CW, AMTOR, and SSTV capabilities on board, and may even have 6-meter capability. Cliff Clark, KZ9E, is coordinating phone patches from US schools to the Amazon Queen. He is active on 14.300 MHz. He also may be contacted at [kb9ksl@midwest.net](mailto:kb9ksl@midwest.net) or call 618-648-2499. Teachers seeking additional information about Amateur Radio in the classroom should visit <http://www.arrrl.org/ead/teacher/>.

For more information, visit the Expedition's Web site, <http://www.amazonqueen2000.com>. Contact Gonzales via e-mail to [philincolumbia@openway.com.co](mailto:philincolumbia@openway.com.co). QSL via Roberto Rey, HJ3PXA, and include an SASE or IRC for return postage.

#### AMRAD LF beacon heard in Ontario

The second Amateur Radio Research and Development Corporation experimental LF beacon, WA2XTF/12, has been heard in Canada. Mitch Powell, VE3OT, recently e-mailed a report to AMRAD from London, Ontario. The WA2XTF/12 beacon on 136.745 kHz is a part of AMRAD's experiments to gain LF experience in anticipation that the FCC may allocate an amateur band at 136 kHz. AMRAD obtained its Part 5 experimental license for the project earlier this year. Powell said the signal was so strong he was able to hear it coming his headphones ten feet away and was easily able to copy the e-mail address to file the report. He said the signal ranged from 459 to 559. VE3OT's receiver is a Drake R8, operating in upper sideband mode, with a 500 Hz filter followed by a 600 Hz audio filter (SCAF). His antenna is a 12-foot loop using a homebrew preamplifier. "WA2XTF/12 is right at the noise level but 100% readable," he said. AMRAD's Andr' Kesteloot,

N4ICK, says the report from VE3OT was the best DX received since the beacon went on the air in mid-November. Reports go to Kesteloot at [n4ick@amrad.org](mailto:n4ick@amrad.org).—Andr' Kesteloot, N4ICK

## ENHANCED AMATEUR ENFORCEMENT ENTERS A NEW YEAR

As the new year gets under way, FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth hinted he might have to break bad on hard-core offenders this year. He explained that poor or lax FCC enforcement in the past led him to be more forgiving of rulebreakers during his first full calendar year in the enforcement chair. Now, those who persist in operating outside of the stated basis and purpose of Amateur Radio "are beginning to try our patience," he said. "I can't say we're going to be as compassionate this year."

Hollingsworth said he expected to continue his focus on incursions into the 10-meter band by unlicensed operators, especially as propagation gets better, and on equipment certification issues. "We're very concerned about the illegal equipment we see for sale at hamfests," he explained.

Overall, however, malicious interference remains "the basic problem," as he put it. "We're going to use the High-Frequency Direction Finding Center at Laurel [Maryland] more this year" to track down rulebreakers, he said. In addition, Hollingsworth now has enhanced monitoring tools at his Gettysburg office, allowing him access to the HFDF Center's 14 antenna fields plus VHF-UHF "pods" that can be moved around as necessary. "We have dial-in capabilities to all of our antenna fields and to the pods, so we can cover HF, UHF, and VHF anywhere in the country, right here from the Gettysburg office," he explained.

"It's a force multiplier, so to speak," Hollingsworth said of the new capabilities.

Hollingsworth also says he's upbeat about the future of ham radio and the FCC's Amateur Radio restructuring plan announced December 30. "I'm really optimistic about it," he said this week. "I think that it's a good idea to simplify things a little bit as far as the number of license classes," he added, referring to the new three-tiered system.

Hollingsworth said he believes Amateur Radio needs more young blood to keep it going in the future, and he thinks the new licensing system that becomes effective April 15 might help in that regard. He declined, however, to comment further on the specific policies and rules the FCC's Wireless Telecommunications Bureau laid down in its Report and Order, saying it would not be appropriate.

## Long-distance rescue via Morse code

Gene Nailon, K5DLE, reports a ham in the Rockies has a fellow amateur in Oklahoma and the Morse code to thank for helping after he fell ill during a QSO December 17. Larry Watson, W5EIU, in Oklahoma City answered a CQ on 3710 kHz from the Wyoming ham. They had been talking for about 15 minutes when the Wyoming op told Watson: "I think I'm having a heart attack, and I can't get to the phone." After that, his transmission broke off, and Watson was unable to raise him further. About the same time, Jim Caldwell, WJ0C, of Waterloo, Iowa, broke in. WJ0C was able to look up the full name and location of the Wyoming ham and relay the information to Watson, who called the police in the Wyoming town to alert them to a potential medical emergency. It turned out they were right. The Wyoming ham—whose name and location were unavailable—was hospitalized, and the prognosis was said to be good. Watson, first licensed at age 13 in 1954, says this was a first for him. (By the way, both Watson and Nailon belong to Central Oklahoma Chapter 63 QCWA.)--Gene Nailon, K5DLE

## RAC establishes HF Band Planning Committee

The Radio Amateurs of Canada Board of Directors has appointed a new committee to advise on revisions and improvements to RAC band plans covering the HF spectrum from 1.8. to 29 MHz. The new committee will be chaired by Bob Nash, VE3KZ. The committee will consider the implications of the FCC's recent Report and Order on Part 97 and offer advice and recommendations for changes to the Canadian plans, if appropriate. The committee will also review the changes to the 40-meter band proposed by the IARU, and recommend a Canadian position on the changes. The panel also has been asked to consider possible new HF amateur bands. Canadian amateurs may send comments and suggestions to Bob Nash at [rnash@netcom.ca](mailto:rnash@netcom.ca).--RAC

## Special Canadian Y2K prefixes



Industry Canada informs Canadian amateurs that the following national special event prefixes are authorized through February 16, 2000. VE1 = CG1; VA1 = CF1; VE2 = CG2; VA2 = CF2; VE3 = CG3; VA3 = CF3; VE4 = CG4; VA4 = CF4; VE5 = CG5; VA5 = CF5; VE6 = CG6; VA6 = CF6; VE7 = CG7; VA7 = CF7; VE8 = CG8; VE9 = CG9; VO1 = CH1; VO2 = CH2; VY0 = CI0; VY1 = CI1; and VY2 = CI2.—RAC

### **\$January Treasurer Report\$**

Income for December was \$50.00 in memberships. Expenses were \$13.20 for newsletter postage. One more piece of the contributed equipment was sold for an income of \$40 to the Community Fund.

Current balances:

General Fund	\$571.26
Community Fund	\$1467.55



No Y2K problems have been found with the Treasury.

-Ralph, KD1SM



### **Nashoba Valley Amateur Radio Club**

PO Box # 900  
Pepperell Mass 01463-0900  
nvarc\_n1nc@arrl.net

Pres.: Erik Piip KA1RV  
V Pres.: Open  
Secretary: Ian Norrish NZ1B  
Treasurer: Ralph Swick KD1SM  
Editor: Stan Pozerski KD1LE  
PIO: Jon Kinney N1JGA  
Board Members  
Wolfgang Seidlich KA1VOU 1997  
Earl Russell 1998  
Bob Reif 1999

Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr.  
Talk-in 146.490 simplex  
442.90 + 100Hz Repeater

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. You can leave items on PEPMBX, or  
[pozerski@net1plus.com](mailto:pozerski@net1plus.com)  
Copyright 2000 NVARC