NVARC Nashoba Valley Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB ARRL

de N1NC

May 2004 Volume 13 Number 5

This Month's Meeting

This months program will be Phil Temples ARRL Eastern Mass Section Manager. Phil will discuss League activities and issues

Last Month's Meeting

Last month's meeting began with elections. The four officers and one Board member positions were up for election. The persons holding all the positions had expressed an interest in running for their position again. No persons at the meeting expressed an interest in challenging the incumbents. By a voice vote the slate was re-elected unanimously. The current officers and Board members are as listed below.

President	Stan Pozerski
Vice President	Peter Nordberg
Treasurer	Ralph Swick
Secretary	John Griswold
Board 2005	Les Peters
Board 2006	Dave Peabody
Board 2007	Bob Reif

A proposal was made and approved that the club buy in quantity a supply of **NOW YOUR TALKING** to be used in two ways. For those opportunities identified by a member of a prospective ham we will sell the book at cost. This gives the person a discount and gives us a connection to them. In cases identified by a member where the price of the book might be more than a particular person could afford we will give the book away. In both cases it is hoped that a mentor relationship will exist between the member and the prospect.

As a result we had two presentations. The first segment began with a quiz on the Ham Radio History series of articles that were written by Bob W1XP. The names of the people whose quizzes had no more than one incorrect answer were put in a drawing for an ARRL OPERATING MANUAL donated by Bob. Eric W1ZBT, won the book.

This was followed by a presentation by Stan KD1LE on the "Tower Consortiums" trailer improvements in a picture presentation.

In the regular book raffle we gave away three books. They were won by John KB1HDO, Peter N1ZRG, and Les N1SV/AYN.

Attendees: (16) KB1KEF, KB1HDO, K1LGQ, AB1CV, W1XP, WR1Y, KB1ESR, KD1SM, N1ZRG, N1MNX, KD1LE, W1ZBT, K1KEY, K1YTS, N1SV, K1NKR

Unfortunately the presentation on Marconi by Ray Minichiello had to be rescheduled. We hope to have Ray speak at the June meeting. Ray is one of the founders of the Marconi Museum in Bedford NH.

From the President

With Field Day rapidly approaching plans are moving forward. Permits granted for the orchard, basic station plans, antenna arrangements and field layout have been worked out by John and Les. I hope everyone will take a look at the list of "needs" they have identified and sign up for something you can do or provide.

Is That Coax Worth Saving?

By W1XP

One thing that I have read and heard as long as I have been a ham (49 years next month) is the importance of using "fresh" coax cable to guarantee lowest loss. I have certainly seen plenty of coax that had a black or brown colored center conductor insulating material. But I have often wondered if this was really an issue or if it was a campaign to sell more coax.

The reason for the discoloration of the polyethylene dielectric is contamination by the diffusion of chemicals from the polyvinylchloride (PVC) jacket. This also causes a corrosion of the wire strands in the braided shield. Now not all coax is created equal. The lowest cost jacket material is a PVC formulation that causes this discoloration. This is identified as Type I in Military Specification. There is also a PVC formulation that does not cause the discoloration of either the center conductor dielectric or the shield braid wires. This is Mil. Spec. Type IIA. The Type I is called contaminating and the Type IIA is called non-contaminating. But my question has long been what is the difference in the "end of life" performance of the two cables. So for some time I have been looking for a really bad looking piece of coax that I could test. Well the barn project forced me to clear out the hay loft and sure enough I found an almost 50 ft length of RG-8/U. The dielectric was almost as black as the jacket. At last I could run some tests.

It took a bit of work to clean up the braid so that a pair of connectors could be soldered onto the cable. I then measured the loss in the cable from 1 MHz to 500 MHz in a one, two, five sequence and converted the measured loss to loss per 100 feet. I then compared this to the published loss for RG-8/U. The results are interesting, but not unexpected. At one, two, five, 10 and 20 MHz the loss was the same as the published specification for RG 8. It wasn't until the test frequency reached 50 MHz that a sufficient difference from the measured and published spec could be noted. This was 0.4 dB per 100 feet at 50 MHz. Note this is additional loss above the new cable loss. At 100 MHz this additional loss had increased to only 0.45 dB and at 500 MHz it was 2.3 dB of additional loss. But at 20 MHz and below the difference in the loss was so small as to be not detectable. The power meter used for the tests will display 0.01 dB and a direct substitution method was used to measure the loss in the cable.

So I think the question is answered. If you are using a coax cable at a high VHF or low UHF freq. and it is more than several years old it might be worth while to look at the cable loss. Especially if you are using it for more than talking to the local repeater. On the other hand if the coax is used on the 40 meter dipole and it is in good physical condition then there is no need to worry about the cable regardless of what kind of jacket it has. The other side of the question is what to consider when buying new cable. The short answer is go for the premium Type IIA non-contaminating jacket cable. The loss will be stable until the cable dies of old age for other reasons. Probably in excess of 20 or 30 years. If the cost is cheap it probably isn't the non-contaminating jacket. Claiming that the cable is Mil Spec doesn't mean it is Type IIA. Type I is a military specification. Some dealers make all kinds of claims. Buyer beware. If the application is for HF, and long life is not an issue then the cheaper Type I jacket is probably more than adequate. Save your money for something else.

But it is clear that you may not want to throw away that cable you took out of service for the two meter antenna because it has a contaminating jacket. Save it for the new 160 meter antenna. It will work just fine there. Also if you find a cheap roll of old coax at the flea market and you think you may want to use it for the new 15 meter vertical, then you don't need to worry about the jacket type. It will probably be just fine in this application. On the other side stay away from cable with a discolored dielectric for applications above HF. It will have excess loss. The best thing is take the money you saved using the older cables on HF and buy one of the newer low loss cables for the VHF/UHF applications. 73 Bob W1XP

Adopt A Highway

Thanks to Bob W1XP who ran the cleanup as I had a MARS meeting in Auburn on our scheduled day.

Thanks to everyone who helped out on our first road cleanup of the year. The first one is always a bit

more work so it was good to have some extra support. We left 23 bags for MassHighways to collect.

Participants for the April cleanup were; Peter N1ZRG, Nancy KB1KEF, Ruth Richards (Nancy's Mother), Gary K1YTS, Earl WR1Y, Jim AA1PO, John KB1HDO, Ralph KD1SM, Ken K1KEY, Eric W1ZBT, Larry KB1ESR.

The cleanup crew ready to go

We will continue with the schedule of the Sunday after the 3rd Thursday since that seems to be working for most people.

Stan KD1LE

NVARC Club Net

The NVARC Information Net has been running since the last club meeting. The net on April 26th was called by Bob W1XP as net control and had six check ins. Participating were Ken K1KEY, Skip K1NKR, Dave N1MNX, Larry Kb1ESR, Ralph KD1SM, and Stan KD1LE. Nets continue to be called and are a good place to bring information for the club and questions or discussions.

With the Groton Road Race (GRR) happening the day before the net it naturally was the topic of discussion. There were general comments from each participant with the general sense that the race went well. There were also some specific suggestions by several participants.

One of the subjects that came up both from the GRR discussions and to improve net procedures on this net was to have one of the upcoming sessions cover proper net procedures.

In advance of that net let me point out that when the Net Control Station (NCS) calls for comments and a call for additional stations the proper way to get on the list to make your comment is to say ("This is" **your callsign** with a pause to check for doubling and say "additional comments" or "Query" if you have a question. As long as the net is running as a Directed Net each transmission is directed by the NCS and after each transmission by a participant, which may be a comment or question, control passes back to the NCS.

The net meets at 8:00 PM Monday evenings on the 442.900 N1MNX repeater.

Groton Road Race

On Sunday April 25th we provided communications support for the 13th annual Groton Road Race. WE set up the Net Control Station in the parking lot adjacent to the credit union where the police meet. This location had the advantages of more space and easier access for those working the course. This way they avoided the school grounds with its limited parking and access.

Above (l-r) John KB1HDO, Carsten KB1KTP, Wolf KA1VOU, Jim N8VIM, Ken K1KEY, Bob W1XP, Stan KD1LE, Jason KB1KEG

Ralph KD1SM provided his RV (above) for the command post as he has in previous years. The tower consortium provided the tower which now has a cross arm on the top section for halyards to support dipole antennas and a cross arm at twenty-five feet to support two vertical antennas.

Supporting this event were the following hams.

AA2T Jerry Rogich, K1KEY Ken Young, K1SON Jerome Rogich, K1SUB Pete Speen, K1TWF Mike Reisbeck, K1WD William Davis, K1YTS Gary Busler, KA1EEC Eric Johansson, KA1JVU Karen Reif, KA1VOU Wolfgang Seidlich, KB1ESR Larry Swezey, KB1HDO John Griswold, KB1ILP Joel Rubin, KB1KEF Nancy Richards, KB1KEG Jason Grennell, KB1KTP Carsten Turner, KD1LE Stan Pozerski, KD1SM Ralph Swick, KD1TE Gary Thorburn, KD2S Den Connors, N1BDA Steve Telsey, N1HTS Jim Evans, N1ICB Rob Spence, N1IWV Ed Anderson, N1LDL Chuck Searle, N1LLG Daniel Daigneault, N1MNX Dave Peabody, N1MOR Phil Gray, N1NWE Don Campbell, N1QGE Hugh Maguire, N1RXV Bob Schmeichel, N8VIM Jim Hein, NF1A Art Pizer, NZ1B Ian Norish, W1DOL Dolores Bell, W1HPB Alan Bell, W1OJP Bob Belleville, W1TQ Dave Foner, W1XP Bob Reif, WA1TAC Rod Hersh, WB1ARZ Mark Rubin, WW1HR Herm Raymond

Thanks to everyone who helped us on this our largest event of the year.

Other Public Service Events

Members helped out on other events during the April/May period. There was the Townsend Lions Canoe Race, Groton Road Race (previous article), Boston Marathon, and the Walk For Hunger.

Townsend Canoe Race

Gary K1YTS, Nancy KB1KEF, Stan KD1LE, Ralph KD1SM, Bob AB1CV

Walk For Hunger

Stan KD1LE, Ken K1JKR, John KB1HDO

Boston Marathon

Larry KB1ESR, John KB1HDO, Ralph KD1SM, Jeanine N1QIT, Stan KD1LE

Groton Road Race listed separately

Thanks to everyone who participated in these events. Only by helping each other support events can we get the job done.

NVARC Fox Box

The NVARC Fox Box has been in the field since May 1st. The first two weekends were planned to be on foot hunts involving no long distance direction finding so the location at the Cowdrey Nature Center in Lunenburg was announced. The Nature Center is on Route 2A just west of the junction of Route 225.

In the fox log for the first two weekends were Barry W1HFN, Ralph KD1SM, and Stan KD1LE.

The fox transmits on 145.630 MHz and gives a voice ID followed by a CW message in the form

NNN X NN F NNNN V

Where the number preceding the X is the number of transmissions it has made. The number preceding the F is its temperature. The number preceding the V is the battery voltage in millivolts.

By computer control it turns on at 8 AM and turns off at 9 PM and transmits every five minutes. If you are reasonably close (it's a little hard of hearing) you can send a DTMF * within five seconds of the end of transmission and it will go into a half time (2.5 minute) cycle for ten transmissions.

National Fox Hunting Weeend was May 8-9 and participant info was submitted to Joe Moell (Mr Foxhunt) who writes a regular column in CQ Magazine.

Happy hunting.

Tiny's Flea Market

Stan brought 15 cases of miscellaneous electronic components such a capacitors, switches, power supply's, and transformers to breakfast several Saturdays at Tiny;s. Many people availed themselves of the opportunity to pick up some free stuff.

ARRL Letter

PUT BPL PROCEEDING ON ICE FOR FURTHER INTERFERENCE EVALUATION, ARRL SAYS

The ARRL has asked the FCC to put its BPL proceeding on hold to allow more thorough research of BPL's interference potential to licensed radio services. Among other things, the ARRL wants to more closely review the lengthy National Telecommunications and Information Administration (NTIA) Part 1 BPL study released April 27. In comments filed May 3 in response to the FCC's February 23 BPL Notice of Proposed Rule Making (NPRM) in ET Docket 03-47, the League also called on the FCC to apply "considerably more conservative radiated emission limits" to BPL than those applying to "normal" Part 15 devices. Five technical exhibits, including an ARRL-commissioned independent study at BPL trial areas and additional research, accompanied the League's comments.

"The Commission cannot be in such a hurry to deploy BPL . . . that it must sweep under the rug the mounting evidence that BPL is a significant source of interference to licensed radio services and is not in the public interest," the ARRL declared.

The League also took the FCC to task for its willingness to balance BPL's presumed benefits against the potential of harmful interference. "The principal obligation of the Commission in permitting unlicensed devices or systems is to establish a radiated emission level that is sufficiently low that by their operation they will predictably not interfere with licensed radio services," the ARRL emphasized.

The ARRL told the FCC that applying existing radiated emission limits to so-called "access BPL" systems is inappropriate. "Those levels are far too high and were designed to address the interference of point-source radiators," the League said. "It is obvious that access BPL systems are distributive, line-source radiators" and the FCC should apply a limit low enough to prevent interference to mobile stations that might operate in BPL-served neighborhoods. The ARRL suggested that 0 dBuV/m at the antenna measured at 10 meters (approximately 33 feet) from the power line would bean "acceptable" radiated emission level.

The League further proposed amending Part 15 rules (§15.109) to require BPL systems to incorporate adaptive interference resolution techniques adequate to cause them to cease operation within an hour following a report of harmful interference to an FCC licensee's station. The BPL system then couldn't resume operation within one kilometer (approximately 0.62 mile) of the complainant's station "unless and until the harmful interference is resolved." The ARRL also would require BPL systems to supply detailed information on their systems to a public Web-based database.

The FCC's NPRM offers no support for its conclusion that interference to licensed services would be minimal, the ARRL said, and it noted that amateur licensees have filed more than two dozen BPL interference complaints with the FCC.

"Some of these interference problems have persisted, notwithstanding the good faith efforts of some BPL service providers to resolve the problems," the ARRL noted. "In other cases, the complaints are simply ignored. None has been adjudicated by the Commission, as far as the ARRL can tell." Instead, the League said, amateurs' BPL complaints "remain under wraps" in the Office of Engineering and Technology instead of being handled by the FCC's Enforcement Bureau, which typically deals with power line noise complaints from radio amateurs.

"Mere mitigation" of interference is not sufficient, the ARRL said. "It is the absolute obligation of the operator of a Part 15 device or system to prevent interfer-

ence." The League pointed out that the FCC's NPRM does not require interference resolution. "The interference to fixed amateur stations located in residences in normal geographic proximity to overhead power lines will be devastating and will preclude Amateur Radio communications," the League predicted. It called the FCC's proposed mitigation techniques "too little, too late to avoid widespread interference."

Referring to its main BPL study, the League said measurements at one site within a BPL test system in Emmaus, Pennsylvania, "exceeded FCC Part 15 limits by up to 20 dB or more." At another test site in Whitehall, Pennsylvania, using another technology, the study concluded that the BPL signals--while apparently within Part 15 limits--"would have interfered seriously with reception of Amateur Radio signals."

"This proceeding should be placed on hold for a year in order to work out appropriate interference avoidance and resolution standards," the League concluded.

The League was among more than 1000 individuals and entities commenting in the proceeding by the May 3 deadline. Reply comments are due Tuesday, June 1. On the eve of the comment deadline, the FCC denied several requests--including one from the ARRL--to extend the comment period.

The League's comments are posted on the ARRL Web site <http://www.arrl.org/announce/regulatory/et04-37/ARRL_04-37_Comments.pdf>.

YOUNG HAM AIDS EFFORT TO RESCUE CLASSMATE

Jordan Webb, KI4AVG, of Knoxville, Tennessee, had a feeling he should take his 2-meter handheld transceiver along on an April 30 field trip. Heading off with his eighth-grade class to remote Abrams Falls in Tennessee's Smoky Mountains, the 13-year-old decided to throw his handheld into his backpack--just in case.

"I didn't think I would have to use my Icom V-8, but I packed it anyway," Webb told ARRL.

As it turned out, while swimming Vine Middle Magnet School classmate Christopher Drinkard was pulled under the water of Cades Cove by strong currents from Abrams Falls. Webb and another classmate, Zach Hubbs, jumped into the water to help Drinkard when Webb remembered the radio in his backpack. Webb alerted a teacher that he had his radio and hoped that if he could get to high-enough ground, he might be able to call for help. After scrambling up a hill, he was able to contact Jim Bond, K6SPY, in Knoxville. Bond alerted authorities to the situation, and emergency medical personnel were able to respond relatively quickly to the isolated area. If someone had had to hike out, it would have taken considerably longer. Unfortunately, despite rescue workers' quick response, Drinkard did not survive.

Tennessee Assistant Section Manager David Bower, K4PZT, observed that the incident occurred in a part of the Smoky Mountains where cell phones typically don't work. "Ham radio was the means used to request help when this emergency first happened," he said.

A ham for about one year, Webb is a member of the Anderson County Amateur Radio Emergency Service, the Radio Amateur Club of Knoxville and several other ham radio groups in the Knoxville area.

Anderson County ARES Emergency Coordinator Jeff Yawn, KF4UVT, said Webb has spent Kid's Day in his shack, and he called him "a fine, upstanding young man."

"I know he did all he could to help his friend," Yawn added.

LOGBOOK OF THE WORLD DXCC CREDITS SYSTEM RENEWING DXCC ENTHUSIASM

The DXCC credits component of ARRL's Logbook of the World (LoTW) http://www.arrl.org/lotw> secure contact database got off to an enthusiastic and busy start Thursday, May 6--a day later than planned. ARRL Membership Services Manager Wayne Mills, N7NG, says the much-anticipated LoTW DXCC component not only is making it easier for members to apply QSO credits to their DXCC records, it seems to be renewing overall interest in the DXCC program.

"Several hundred users had linked their Logbook accounts to their DXCC accounts in the first 24 hours the DXCC component was on-line," Mills said. "I'm thrilled to see people getting interested in DXCC again."

An ARRL member from Missouri earned the distinction of becoming the first to qualify for an initial DXCC certificate using only LoTW "virtual QSL" records. Another amateur--ARRL Midwest Division Vice Director Bruce Frahm, K0BJ--used LoTW credits to update his DXCC record and now has qualified for the DXCC Challenge.

The Logbook of the World database has grown to be a repository of some 42 million individual contact records submitted by users in the US and abroad. When both QSO participants submit matching contact records to LoTW, the result is a "virtual QSL" now good for DXCC credit. Mills says more than 2.5 million QSO matches already exist in the system.

For more information, contact the Logbook of The World staff <lotw-help@arrl.org> or visit the LoTW Web site <http://www.arrl.org/lotw>.

NEW MORSE "@" CHARACTER BECOMES OFFICIAL MAY 3

The International Morse code officially gains a new character on May 3. That's when the now-familiar "@" symbol joins the Morse lexicon as the letters "AC" run together (.--.-.). Known as the "commercial at" or "commat," the @ symbol never rose to the level of usage that demanded a unique Morse character until it gained currency as a critical component of e-mail addresses during the past decade or so.

Last December, the International Telecommunication Union Radiocommunication Sector (ITU-R) Study Group 8 agreed on the wording of a Draft New Recommendation ITU-R M.[MORSE] that specified the international Morse code character set and transmission procedures and included the new Morse code character.

The pending change has attracted some attention in the media, including mentions on National Public Radio's All Things Considered and in The New York Times.

ARISS TO MULL HAM RADIO'S ROLE IN DISTANT SPACE TRAVEL

The Elser-Mathes Cup, sitting idle for more than 75 years, is intended to mark the occasion of the first two-way Amateur Radio contact between Earth and Mars. That day may be moving closer. The Amateur Radio on the International Space Station (ARISS) International Team will contemplate ham radio's role as NASA--in response to a recent presidential initiative--seeks to expand the horizons of human spaceflight to the moon, Mars and beyond. During an International Team meeting March 25-26 in the Netherlands, ARISS International Chairman Frank Bauer, KA3HDO, said NASA's Education Office has asked ARISS to consider endorsing the initiative and start laying some groundwork for an Amateur Radio presence. That makes perfect sense to ARISS Secretary-Treasurer Rosalie White, K1STO, of ARRL.

"Our space agencies are going to Mars now, so it's natural we should think about it and do initial planning now," said White, who was among the more than two dozen ARISS delegates on hand at the European Space Research and Technology Center in Noordwijk. "We could start by targeting our educational materials on exploration beyond the International Space Station." The ISS--the home of the first permanent Amateur Radio station in space--is scheduled for completion in 2010 using the space shuttle fleet, which then would be mothballed.

Some ideas Bauer floated during the gathering included an Amateur Radio payload on the Red Planet as well as a Mars telecommunications satellite, remotely controlled Amateur TV and a repeater on the moon. The long-range planning will get further discussion when the ARISS International Team meets again in October.

In other matters, the ARISS team learned that a planned slow-scan television (SSTV) system will not launch to the ISS this year. With just two crew members aboard the space station and a need to make the most use of space aboard Russian Progress supply rockets, NASA has suggested that ARISS hold up the SSTV payload for a Progress rocket flight closer to the space shuttle's return to flight, when the ISS again will have a crew of three.

The two-person crews have not had much time to install and test ARISS projects, including the Phase II gear put into place earlier this year. While it's on the air for RS0ISS packet operations, the Phase II gear will not see routine FM voice use for school group contacts and casual QSOs until it gets a full on-the-air checkout. The SSTV gear needs additional preflight testing as well as work on the associated software.

AMSAT-Russia's Karen Tadevosyan, RA3APW, is completing modifications to a Yaesu FT-100 HF/VHF/UHF transceiver. That equipment could go up to the ISS on a Progress rocket flight this fall. Other projects still in the discussion stage include an external digital ATV transponder and beacon. ARISS also is considering a project to use Amateur Radio via IRLP and/or EchoLink to link to the ISS via the Internet.

The ISS could gain a third ham station once the European Space Agency's Columbus module goes into space. Through-hull fittings, or "feedthroughs," are being installed for as many as eight coaxial cable runs, although funding remains an issue. The feedthroughs would permit the module to accommo-

date UHF, L and S-band operations possibly using patch-type antennas being designed by ARISS volunteers.

ARISS delegates also recognized the achievements and contributions of Roy Neal, K6DUE (SK), toward making the ARISS program a reality. Neal, a former NBC News science correspondent and executive, died last August 15.

Contest Calendar and DXpeditions

I started this column with the hope it would help some members log a new country or even try contesting. I'm not a contester myself, but I enjoy getting on the air for a while during a contest and giving out a few contacts and maybe logging a rare country. Another bit of information I thought might be of value to members is a list of upcoming DXpeditions. They usually activate countries, or in some cases islands (as in the case of IOTA (Islands On The Air) that are rare. This might give you a chance to log a missing country or island. The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

CONTESTS (MAY-JUNE)

May 29-31	CQ WW WPX Contest CW
June 12-14	ARRL VHF QSO Party
June 19	Kids Day
June 26-27	Field Day
July 10-11	IARU HF World Chanpionships

DXpeditions

5H	Tanzania	1 year
5V	Togo	current
8Q7WP	Maldives	till 09/05
YI9GS	Iraq	till July
VK0DX	Antartica	till December
VQ9LA	Diego Garcia	till December
5H3HK	Tanzania	till March 2006
ZD8I	Ascension Is	till March 2006
HS0ZCW	Thailand	till August 25

PSLIST APRIL

Listing public events at which Amateur Radio communications is providing a public service and for which additional volunteers from the Amateur Community are needed and welcome. Please contact the person listed to identify how you may serve and what equipment you may need to bring. The most up-to-date copy of this list is maintained as http://purl.org/hamradio/publicservice/nediv.

**** Every event listed is looking for communications volunteers ****

Date Location Event
Contact Tel/Email

May 16 Devens MA Parker Classic Road Race
Stan KD1LE 978-433-5090 kd1le@arrl.net

May 23 Boston MA ALA Asthma Walk
Bruce KC1US 781-275-3740

Jun 13 Wayland ALS Scenic Bicycle Tour
Bruce KC1US 781-275-3740

Jun 26 Boston to Bourne MA MS GMG Bike Tour
Jun 27 Bourne to Boston MA MS GMG Bike Tour
John N1PYN 508-588-3250

Jul 4-5 Longsjo Classic
Ralph KD1SM 978-582-7351 kd1sm@arrl.net

See http://purl.org/hamradio/publicservice/nediv

Advertisements

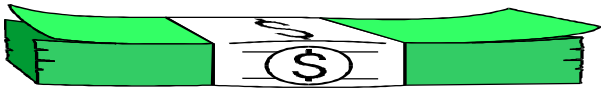
Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.

$May Treasurers Report$

Income for April was $95 in membership dues, $6.09 in bank interest, $38 from the March meeting book raffle, and $15 from PowerPole connector distribution. Expenses were $14.80 for newsletter postage, $7.40 for additional postage, and $159.39 for PowerPole connectors, leaving a net expense of $27.50 for the month. From the Community Fund we purchased 10 copies of Now You're Talking at $149.60.

Current balances:

General fund $4785.32
Community fund $1692.95



Welcome to new member Peter Hill KB1KHM of Townsend. And welcome also (and again) to Nancy Richards KB1KEF of Ashby, whom I forgot to mention last month.

We have 54 current members.

73,
Ralph KD1SM

Nashoba Valley Amateur Radio Club

PO Box # 900
Pepperell Mass 01463-0900

http://www.n1nc.org/

President: Stan Pozerski KD1LE
Vice President: Peter Nordberg N1ZRG
Secretary: John Griswold KB1HDO
Treasurer: Ralph Swick KD1SM
Board Members:
Bob Reif 2001-2004
Les Peters 2002-2005
Dave Peabody 2003-2006
Editor: Stan Pozerski KD1LE
Emergency Coordinator: Den Connors KD2S
Photographer: Ralph Swick KD1SM
PIO: Ron Wood W1PLW
Librarian: Peter Nordberg N1ZRG
Property Master: John Griswold KB1HDO
N1NC Trustee: Bruce Blain K1BG
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
147.345 + 100 Hz Repeater
53.890 – 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 send items to
pozerski@net1plus.com

NVARC

Nashoba Valley Amateur Radio Club

PO Box 900

Pepperell, MA 01463-0900