



Nashoba Valley  
Amateur Radio Club

# SIGNAL



May 1997 Volume 6 Number 5

## May 1997 Presidents Letter

The 1997 Groton road race broke all records for competitors. There were 2,068 competitors, (almost a 40% jump from last year), spread across the tot's, 2K, 5K and 10K events. As usual there were several incidents that required the help of the hams. One of these was an organizational snafu, where a number of course marshals never showed up to put the cones out on the 5K course. The hams came to rescue, by moving a miles worth of cones out onto the course while all the 2 and 5 K runners were patiently waiting for the start. Once these were put out, the police were willing to allow the race to begin. So far, the race has beaten the odds, with no serious emergency's requiring calling out the EMT's. One could assume this is due to the great effort put in by every-one involved to make the event one of the best in the New England region.

We had 41 HAMS helping with organizational and Race health and safety nets. On behalf of the Road Race committee, the runners and myself, many thanks to the following; K1LJN Mike, K1WD William, K1YET Stewart, KA1EEC, Eric, KA1RV Erik, KB1BGL Peter, KB1BNW Sarah, KB1FJ Ben, KD1LE Stanley, KD1SM Ralph, KD1YH Paul, KE1EC Herm, N1ABY Crag, N1DDE Steve, N1DVC Bob, N1FER Mary Beth, N1HTS Jim, N1ICB Robert, N1IWW Ed, N1KGX Bill, N1MOR Phil, N1NXO Al, N1OTO Pete, N1PBL Lynda, N1PIP Allyn, N1PUI Scotti, N1QDZ Joseph, N1QIT Jeanine, N1RXV Bob (& Son), NF1A Art, NZ1B Ian, W1TQ Dave, WA1I Jeff, KA1KCU Ron, WA1TAC Rodney, WA1VMG Joe, WK1V Jim, WO1N Ken, WQ1E Donald, WX1J Scott, W1XP Robert.... I hope I haven't left anyone out. :-)

I look forward to seeing you all at the May meeting.  
Erik KA1RV

## Club Call N1NC

# N1NC

## This Months Meeting

Jim Western AA1PO will be reporting on the progress in the "Adopt a Highway" program. The State will soon put up the signs on the stretch of Rt 119 we had requested. Jim had to attend some training on the do's and don'ts of cleaning up. This is for everyone's safety. They don't expect us to pick up everything. In fact there are some things that we are not supposed to pick up. He will also tell us about rules and operation of the program. As part of the program Jim has forms we need to fill out (the jobs not done until the paperwork is finished!). So everyone who intends to help on this project should try to attend.

This month the topic should be field day. Details were not available as the newsletter went to print.

Stan

## At The Last Meeting

At last months meeting Eric Cottrell WB1HBU spoke about Short Wave Listening. He brought some of the publications that list stations throughout the world and their operating times and frequencies. He also brought an audio tape of various things you might hear on the air (i.e. different modes).

## Field Day

Again, Field Day is approaching rapidly. Anyone interested in running a particular activity or operating should see Bruce or Craig at the meeting.

At the last meeting we had asked people interested in participating what they would like to do or add to our Field Day. I would like to re-emphasize that message. Also, anything that you could do to plan for part of it would be helpful. Even if your planning is "unofficial" it will still help. If we all give this some thought before hand we will have laid the ground work for a very productive planning meeting. We also are less likely to miss anything.

One thing we need to look at pretty soon is our antenna arrangements. If we are going to have a full set of antenna's for each of the HF stations we will have to plan for the supporting structures.

Unless we have a different proposal it is likely that we will run in the 2A category again. That is two HF stations. There are some things we can do to improve the operation of those stations such as additional antennas (which we are working on), a power switching unit for generator (which is complete), additional antennas and siting which we have not yet looked at. We can also do some things within the 2A class that we didn't do last year if we have the interest. We could run a full time packet station, run a full time station in the VHF/UHF bands, have a Novice/Tech station. That's an opportunity to run three more stations without affecting our operating class.

## Pepperell 440 Repeater

Lest everyone begin to think that these things fix and maintain themselves...Several people have put in a considerable amount of time to get the repeater back into good shape. Dave N1MNX has worked on the phone patch since there were some problems accessing it. Bob W1XP and Stan KD1LE worked on the power amplifiers and Dave put one of them back on line so the repeater is back to fifty watts output power. It had been running with eight watts out. There is on-going work to insulate the building to reduce temperature

changes in the building, particularly during the winter.

## Ten Tec QRP Rigs

### Ten Tec's New 1300 Series QRP Kits

I have been interested in QRP operation since I became a Ham two years ago. Over the past winter I picked up an HW9 (Heathkit QRP transceiver) and was surprised with the results. When you send CQ de KE1ED/QRP it seemed to attract most operators attention because it is different. I was also surprised at how many other QRP OP's there were on the air. It seems that if you work one there will be others in that same area of the band. It was a real thrill to talk to Sweden with only four watts.

After a great presentation, by Dennis Marandos K1LGQ, on QRP and kits, I was hooked. Going through my March 1997 QST I saw a small article on the new Ten Tec series 1300 QRP kits. My choice was the model 1340. The forty in the model number means it operates on the forty meter band. The kits operate on one band and have 50 KHz bandwidth. You choose where to operate when you wind the coils for the kit. It was neat to change the area of operation by spreading the windings further apart or moving them closer together. The kits cost \$95.00 and come complete with all components, a silk screened cabinet, knobs, etc. There are three controls; volume, frequency selector (VFO), and RIT. The kits are CW only and have three watts output.

Well, seven days was a long time to wait for the UPS man to deliver the package, but it was great when it arrived. It came on a Friday afternoon so I would have this baby on the air probably by Sunday afternoon. I plugged in the soldering iron before I took my coat off. I opened the box, wow, lot of parts. The were very simple identification and assembly instructions. There are eight sections of assembly with a test for each section at the end to make sure things are right. I made sure I checked every component twice before installing it. I wanted so badly for this thing to make noise when I finished and hooked up power to it. I was very proud at the end when I discovered, on my own, that I had installed a molded inductor in a place where a resistor

with the same color code belonged. You have to understand that to a guy who has run a lathe for thirty years resistors and molded inductors look the same. It took about two weeks to finish building the kit.

All done! Wow, no spare parts, everything looks good, where is my 12 volt battery? I hooked it up, Darn, no noise. Now I am really bummed out. I am a complete failure (maybe I could swap this thing for a fishing rod). Hold everything, maybe I am only half a failure. Let's try the transmitter section. Holy Cow, it works! There is hope. Well I checked everything five times and could see no visible problems, so now I have to go public with my failure to recruit some help.

WA1RHP (Tom Sefranik) said he would help me find my problem. So one Thursday night I went to his work shop and turned on a signal generator which puts out the same frequency we were looking for. He then started looking for the signal at the very end of the receiver section. Sure enough, the signal came through the speaker. Now we backtracked through each sub element of the receiver section till we didn't hear the signal. So now we are in the filter section and no noise. Then we had to pull out the board and start prodding each solder joint because nothing was visibly wrong. After some head scratching Tom found that on one of the coils I had wound there was still enamel on the wire in the solder joint. Even though the joint looked good the enamel was insulating the wire from the solder. We repaired that solder joint and everything was OK.

I shall be on the lookout for one of those signal generators. What a great learning process it is to troubleshoot a problem.

Then Tom connected his oscilloscope to the rig and peaked the receiver portion of the transceiver. He also had a voltmeter on the speaker. I'll be on the lookout for an oscilloscope also. It looks like a real handy item, I hear they have other uses also.

So now the real test. I call KE1EC on two meters and we run the acid test on forty meters. Herm hears me fine, but I cannot hear him. He is up four KHz from me on receive. Out comes the assembly manual again and there it is. Adjust pot L14

to make sure you are transmitting and receiving on the same frequency.

Ten Tec's 1340 QRP rig was a great project. The satisfaction of building your own transceiver. The learning process of the component identification and assembly including winding your own coils. Also, the lesson on tracing a signal through the receiver to find the problem. Finally all was set, but the band is really noisy. Another one of the many contests. But I tried anyway. Man is it noisy, but there he is answering my CQ; "KE1ED DE KA3YXE in Irwin PA name is also Bob". The receivers seems very good, I barely open the volume and the audio is very loud. The next morning the band is very quiet and I put out a call. Sure enough "KE1ED/QRP DE K3DZ/QRP Frank in Pittsburgh, Pa" with a 579 report.

Well, I am hooked, and really pleased with the new Ten Tec kits. I would like to get another for ten meters but they don't offer one yet. When the sunspot activity picks up ten meters would be a lot of fun QRP.

73 KE1ED Bob McArthur

### Product Support Headaches

One company received a call on the product support line from a lady saying that her washer was broken and that she needed it either fixed or replaced. The support person asked what happened, and the lady began her story: "Well, I was going to get a pair of stone-washed jeans, but they were too expensive. So I got a normal pair of jeans and put them in the washer with some rocks..."

Then there's the story about a man who was upset because his new printer wouldn't print. The Tech Support person started through the standard questions, like, "Is the printer plugged in, turned on..." The man answered yes. So the next question was, "Is the cable plugged in?" The reply came back, "It doesn't need a cable. It's a laser printer--it sends information by laser beam."

### Groton Road Race

The Groton Road Race has come and gone and we all survived. As far as the Hams go I think we all did very well. One thing I noticed was a minimum of communications problems. A couple of people ran out of battery power. Recognizing the problem quickly they switched to fresh batteries and returned to the net. There were some organizational issues that caused a lot of radio traffic. We ran two frequencies, for the first time this year, separating the administrative traffic from the course traffic. Even so, they were both busy at times. We had some interference problems at net control caused by the close proximity of the two transmitters on the same band. This caused receiver desensing on one transceiver when the other was transmitting. We have already discussed some of the problems and potential solutions. If you participated and have any suggestions as to how we could improve our operation don't hesitate to let Erik KA1RV, Ralph KD1SM or myself know.  
Stan

**Upcoming Public Service Events**

May 18 Needham MA Diabetes Tour de Cure bike Faith N1RUN 800-229-2559 FLinsky@ada.noli.com

May 18 Augusta ME Hunger Walk Rod KA1RFD 207-626-0844 ka1rfd@juno.com

May 21 Boston MA Assistive Technology Conf Bob WA1IDA 508-650-9440 erc@world.std.com

Jun 1 Biddeford ME Diabetes Tour de Cure bike Bryce AL7DL 207-799-1116 al7dl@juno.com

Jun 1 Danvers MA Diabetes Tour de Cure bike Faith N1RUN 800-229-2559 FLinsky@ada.noli.com

Jun 1 Marshfld. MA Diabetes Tour de Cure bike Faith N1RUN 800-229-2559

Jun 8 Waltham MA St. Jude Hospitl Bike Tour Charlie N1TPY 508-937-7488 creed@netway.com

Jun 8 S.Hadley MA Diabetes Tour de Cure bike Faith N1RUN 800-229-2559 FLinsky@ada.noli.com  
Jun 13-15 Central ME Bicycle Trek Across Maine W1LEE 207-872-9405 william.akins@state.me.us

Jul 12 Eastern MA Diabetes N.E. Classic bike Faith N1RUN 800-229-2559 FLinsky@ada.noli.com

Jul 13 Southern ME Diabetes N.E. Classic bike Faith N1RUN 508-879-1776  
Jul 14 Lakes Rgn NH Diabetes N.E. Classic bike Faith N1RUN 508-879-1776  
Jul 15 Barre rgn VT Diabetes N.E. Classic bike Faith N1RUN 508-879-1776  
Jul 16 Woodstock VT Diabetes N.E. Classic bike Faith N1RUN 508-879-1776  
Jul 17 Walpole NH Diabetes N.E. Classic bike Faith N1RUN 508-879-1776  
Jul 18 Central MA Diabetes N.E. Classic bike Faith N1RUN 800-229-2559

**E-mail Addresses**

If you have a regular E-mail address please give it to Ralph or myself and we will add it to the club roster.

**Board Meeting Minutes**

Board Meeting Minutes 8 May 1997



The meeting started at 7:30 with the following people present: Erik (KA1RV), Ralph (KD1SM), Stan (KD1LE), Bob (KE1ED), Craig (N1ABY) and Stew (K1YET).

Ralph gave the treasurer's report. See the details elsewhere in this newsletter. There was a discussion regarding donating QST subscriptions to the local libraries from education funds we have in the treasury. Eric will check to see how Groton Library feels about this. Stew will check in Pepperell.

The speaker for this months meeting is not yet confirmed. Stan will check with William (K1WD) to see if K1UGM is

signed up to give his presentation on old radios and origins of radio. The speaker in June will be on Field Day. Bruce (K1BG) will be contacted to see if he's going to be available for this.

Harvard Bicycle Race on July 27th is looking to have us lend a hand with communications. Anyone interested, should sign up at the meeting. The race times are noon till 5:30 or so. Food and drink will be provided.

The Fitchburg club will be having a special event station at the new Johnny Appleseed Visitor Center on Rt. 2 West as you enter Leominster. The stations will be on the air on the Saturday of Memorial Day weekend. If anyone wants to participate, they should contact NZ1D Bill in Townsend. They plan to run three HF stations on Saturday. Otherwise stop by and visit, you might get on the air.

There are 2 and 5 mile road races being held in Devens (Fort Devens) the 18th of May. The organizers are looking for some radio help; half a dozen hams. See Stan at the meeting if you can help out.

There was a short discussion on the Groton Road Race and how some things might be improved next year. All in all it went pretty well except for the delays in starting due to having to get the police satisfied that the race course was safe for the runners. Stan

### **NVARC QSL BUREAU**

Bring your cards and a QST label to the meeting or to breakfast and the club will take care of the shipping and bureau fee. Stan

### **Things to Ponder**

"So we went to Atari and said, 'Hey, we've got this amazing thing, even built with some of your parts, and what do you think about funding us? Or we'll give it to you. We just want to do it. Pay our salary, we'll come to work for you.' And they said, 'No.' So then we went to Hewlett Packard, and

they said, 'Hey, we don't need you. You haven't got through college yet.'"

Apple Computer Inc. founder Steve Jobs on attempts to get Atari and H-P interested in his and Steve Wozniak's personal computer.

### **\$The Treasurer's Report \$**

Greetings all; finally Spring seems to have Sprung. It's been a long time getting here, hasn't it?! And with Spring comes a bunch of membership renewals due with many of the founding members renewing at the same time. During April we had three membership renewals plus interest (for the past two quarters) of \$6.92 for a total income of \$56.92. Expenses were \$19.20 for newsletter postage. Current balances are:

General fund \$476.76

Education fund \$448.34

And don't forget to renew your ARRL memberships, too! If you do it through the club you save a stamp and the club gets part of the money from the League.

73, Ralph KD1SM

### **CW Practice Nets**

The NVARC Slow Speed Net meets Tuesday and Thursday at 7:30 P.M. on 28.123 MHz. Except the third Thursday of the month, that being the club meeting night.

There is now a CW practice session running on the Nashua Repeater (147.045) Wednesdays at 8:00 PM. It will be ARRL Style and the text will be taken from the Nashua Area Radio Club Newsletter. You don't need the newsletter to be able to take advantage of the broadcast.

### **CB Enforcement Bill**

SB QST ARL ARLB021

ARLB021 Ham radio excluded from CB enforcement bill

At the request of the ARRL, Amateur Radio has been specifically exempted from a bill submitted April 17 by US Sen Russell Feingold (D-Wisconsin) that would give states and municipalities authority to enforce the FCC's CB regulations. Feingold's bill, designated as Senate Bill 608, originated with

efforts by the Beloit, Wisconsin, City Council--responding to long-standing CB interference complaints--to pass an ordinance allowing local authorities to enforce FCC regulations. The bill is aimed at reducing radio frequency interference stemming from the use of unauthorized equipment or frequencies by CBers.

In presenting his bill, Feingold told his Senate colleagues that he has received RFI complaints over the past several years from numerous Wisconsin communities "in which whole neighborhoods are experiencing persistent radio frequency interference."

If approved by Congress, Feingold's bill would amend the Communications Act to allow state or local governments to enforce regulations that prohibit the use of CB equipment not authorized by the FCC (such as high-power linear amplifiers).

As it now stands, no license is required to operate on the 11-meter Citizens Band, but the FCC does have strict requirements on the type of equipment that CBers can legally use. Feingold's bill would preserve the federal preemption of all other telecommunications matters. It would exclude FCC-licensed services, including Amateur Radio, from state or local oversight.

Also at the ARRL's request, the bill calls upon the FCC to provide "technical guidance" to states and municipalities in detecting and determining violations. Those affected by a state or local enforcement decision would be able to appeal to the FCC. ARRL asked Feingold to add this provision as final safeguard for amateurs who might be erroneously prosecuted despite the bill's other exemptions for amateurs. Feingold's bill also would not preclude the FCC from enforcing its own regulations as they apply to CB.



Feingold called his bill "a common-sense solution to a very frustrating and real problem which cannot be addressed under existing law."



**Nashoba Valley  
Amateur Radio Club**

PO Box # 900  
Pepperell Mass 01463-0900

Pres.: Erik Piip KA1RV  
V Pres.: Bruce Blain K1BG  
Secretary: Stewart Jackson K1YET  
Treasurer: Ralph Swick, KD1SM  
Editor: Stan Pozerski KD1LE  
PIO: Earl Russell WR1Y

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 at Packet address: KD1LE@N1FT.NH