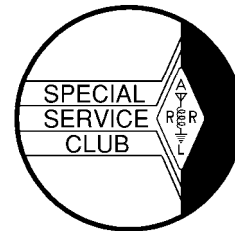




# SIGNAL

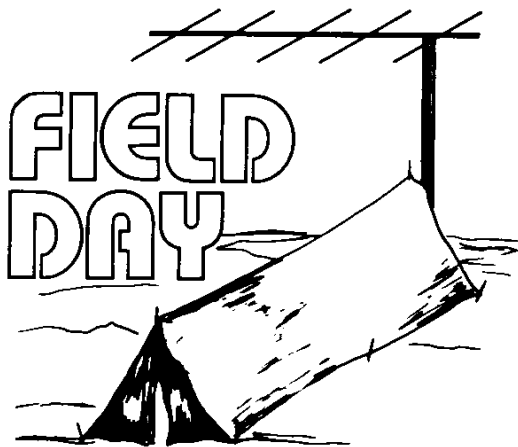


December 1996 Volume 5 Number 12

## Field Day 1996

Field day results have officially been published in QST, and if you haven't noticed, the Nashoba Valley Amateur Radio Club did quite well. In my opinion, VERY well.

Out of approximately 600 competitors in our two transmitter category, we placed 29th. This puts us in the top five percent overall! The Norwood Amateur Radio Club is the only group ahead of us in Eastern Massachusetts.. They have been doing field day for years and are very well organized. Additionally, they had a number of "guest" operators (i.e. "ringers") who contributed significantly to their score. They didn't beat us by much!



I actually visited them during the 1995 field day and have pictures of their site in the slide show I did. We can look at these again next year.

A picture of our field day site was prominently displayed in QST. This was particularly satisfying, because in all the years I've been going on field day, this has never happened to any club or group I've belonged to.

For a young club such as ours, with so many new hams using field day as a learning experience, our score is really excellent. Between now and next field day, think about what we could improve on during field day. Consider ways to improve your own operating skills. Do you have any suggestions which could improve our antennas or our transmitting stations?

More to the point, ask yourself the following questions: If we are hit by a major disaster (no power, antennas destroyed), could I be on the air in a matter of minutes? Was I on the air during last week's power outages? Are my operating skills such that I could make a difference when providing emergency communications? What preparations can I make today in order to be prepared for an emergency (which could strike tomorrow)?

If I've said it once, I've said it a hundred times. How well we did in field day has nothing to do with the score. It has to do with how much fun we had (and we had plenty this year). We have to keep in mind that this is a hobby, and our goals should be improved emergency preparedness and fun. If we improve our score because of this, then it's icing on the cake!

Thanks again for making field day so enjoyable. I'm looking forward to next year.

PS. I've sent the application in for a club call sign. Once we get a standard 2 X 3 call (i.e. KB1XYZ) we can apply for a vanity 1 X 2 or 2 X 1 call sign.

Bruce K1BG

## This Months Meeting

This month is our traditional "Homebrew Nite". Bring your home brew project for all to see and wonder at.

The items you bring don't have to be radio related, in fact just about anything that you are doing that you think others may be interested in is OK.

## At The Last Meeting

The November meeting was a very informative one. There was a presentation by Earl WR1Y on RF safety as it pertains to the changes the FCC has made. The FCC has not commented on how they might enforce the new rules, but they have published the standards for radiation exposure. They have also chosen not to exclude mobile and handheld radios as they did in the past.

Earl produced a handout that showed the calculations involved and some charts for the frequencies that were of most concern. The "safe" limits vary with frequency.

Ralph KD1SM and Stan KD1LE presented on APRS (Automatic Packet Reporting System). They used a slide presentation and live APRS in the demonstration. They showed the equipment that would be used for a mobile tracking unit and a the configuration for a home type station. They covered the format of messages that are used by the APRS stations. After the presentation two live APRS stations were available for use.

## E-mail Addresses

From time to time it would have been nice to be able to get in touch with as many members as possible at the last minute. For example, to let everyone know who/what the topic for the club meeting was, when we didn't know at the time of publishing the newsletter. For this reason I am adding E-mail addresses to the roster. If you have a regular E-mail address please give it to Ralph or me and we will add it.

Stan

## Fox Hunters on the Prowl

The NVARC fox hunters have been active both far and wide carrying the club banner. Recently we participated in two hunts run by the Minute Man Repeater Association. On November 23<sup>rd</sup> the hunt was run on the Stoneham repeater and November 30<sup>th</sup> was run on the Marlboro machine. The format of their hunts is to use the input frequency of one of their repeaters. That is a help to the hunters because you can hear the transmissions on the repeater even if you can't hear them direct. You can't DF with that, you just know that the fox is transmitting and you can or can not hear him. They give hints on the 440 machine located at the same site. This is to help beginners and those who need it. Our fox hunters didn't need any assistance.. They also limit the location of the fox to within a 20 mile radius of the repeater they are using.

KD1SM Ralph and KD1LE Stan hunted on the 23<sup>rd</sup> using small Yagi's to get bearings when we were outside of the Doppler sensitivity and Doppler units as we got closer.. We started hunting from the Reading area using the Yagi's and quickly got within Doppler range cruising down RT 128. The Doppler indicated we passed to the west of the fox near the Leahy Clinic. After a few more transmissions we located the fox in a parking lot on a street parallel to 128 on the east side. It took about 30 minutes to locate the fox which was good time. Several other hunters arrived later. We intended to use APRS but didn't have time to get it completely set up this time.

On November 30<sup>th</sup> KD1SM, KD1LE, and KA1VOU Wolfgang participated in the Marlboro hunt. With a week to get our equipment more organized we were off again. Two Doppler units on the roof, GPS units running, computer running APRS, Yagis's, radios, maps, and miscellaneous other equipment in the back we began preparation earlier this time. We started the hunt near the junction of Rte 2 and 495, taking Yagi bearings as we proceeded down Rte 495. We eventually got into Doppler range in the area of Hudson. Traveling around the back roads of Stow and Hudson we located the fox in Stow near the golf courses. The fox was down a dirt road in the woods. After the all the hunters arrived we adjourned to a local restaurant for lunch and fox hunting chatter. At the lunch one

of the hunters N1QPR Bill mentioned he had built a very small "Fox In A Box" for future MMRA hunts and that it was currently operating to test for battery life (4 AA cells). As we left lunch we decided to give this a try. Since this fox runs off such a small power source its output is very low. We picked up the signal and the hunt near West Acton center. After a couple of loops through the residential area there we localized the signal to a driveway which just happened to have a vehicle with the callsign of N1QPR in it. He was in the driveway but didn't admit the fox was there. So we went off and did measurements from several other places in the area. After considering all the information it always led us back to that driveway. Since that is private property, and fox hunts always specify public accessible places, we didn't go in. But by the time we got home there was a message for Ralph on APRs that the fox was in the vehicle.

Going along with others who are more experienced is a great way to learn the art of fox hunting. Fox hunting on foot may be a one person game and mobile fox hunting can be done solo. But to be really effective and safe I think you need at least two people when mobile hunting. It is very difficult to drive and pay attention to all the other things that need to be done like taking bearings and reading road maps and topographical maps, and keeping track of time. And you're not just looking for streets, but trying to determine a good next spot to take a bearing. This involves a clear spot with as much height as possible. So while we don't know when we'll be out again, let us know if you're interested and we'll let you know when we're on the prowl.

Stan

### Improving Your Communications

Last month this was the article on the soccer tournament. The tournament went very well and we consistently maintained good communications. That had more to do with experience than luck. Most of the people who worked the event have had experience at more than rag chewing. Whether it be traffic nets, emergency nets, or operating at other public service events, nothing beats practice and experience. What prompted this article though was an article in the MARA November newsletter that originated in "RF Musings", the newsletter of the Schenectady Museum Amateur Radio Association. The article was titled "10 Ways to Optimize Your Ef-

fectiveness in Public Service Events". While our public service events (practice) like the soccer tournament may be over for the season, the real events like winter storms and power outages may be just around the corner. Thinking about the things that we can do to improve our communication never goes out of season. The following ten items are paraphrased from the "RF Musings" article.

1. Be sure your radio is in tip top condition.
2. Don't operate your handheld hanging from your belt. It reduces your effective power by 90%!
3. Don't use the three inch rubber duck antennas. They reduce your effective power 3-6 dB from a 12-15 inch rubber duck antenna.
4. Make sure you have charged batteries.
5. Use headphones or an earphone.
6. Speak slowly and clearly.
7. Use simplex if possible.
8. Listen to the net control station and direct all traffic through him.
9. If you need to leave the radio or the net check with the net control station.
10. Project a good image to the non hams around you by your professionalism and behavior.

Number one is guaranteed to get you if you ignore it. Even the smallest problems are amplified during periods of continuous use especially in adverse weather such as high temperatures, extreme cold and rainy days.

Two and three have a significant effect on your radiated power. Besides using the longer rubber duck antenna, keeping it away from your body and up in the air are the objectives. Holding the radio all day can be tiring. The method a number of us have been using is to put the radio in a small day pack and use a speaker mike. This keeps the antenna both away from you and reasonably high. Also, since you have the pack, you can use a larger power source for the radio. I use a "C" cell battery pack. It's good for several days of operation. That addresses suggestion four on the battery issue.

Number five is a good one also. While you can often get by with the speaker in the radio. It does not take too much surrounding noise to make it unintelligible. In a crowd environment I have found the headset to be indis-

pensable. Another alternative is the combination headset microphone.

The sixth point is very important and is not too difficult when everything is going well. When an emergency happens however it is easy to get excited. You will have to concentrate on speaking slowly and clearly and organize your thoughts before you speak so that the important information gets passed.

The seventh point depends on the situation. It is fine to use simplex when everyone can reach at least net control. Repeaters can be the solution when that doesn't work. As an alternative to a general coverage repeater, we sometimes use a dual band mobile radio in cross-band repeat mode.

Number eight is mandatory in a busy net and is the only way to make sure that traffic gets addressed in order of priority. When things are quiet the net control station may signal a "free net". In that mode stations call each other directly without calling the net control station. The net control is still the authority on frequency, and everyone must remember that as soon as things start to get hectic the net control will resume control and they must shift back to normal net procedures.

Nine is self explanatory, The net control doesn't have time to go looking for "lost" stations.

The tenth rule is only important if you want to be invited back to the next event. Event organizers may need your help, but they can be turned off by both poor performance and by actions or demeanor that do not make them look good.

All in all this public service stuff is more complicated than you might have thought. It should be very obvious that you don't just pull out some radio and run off to the event. Preparation prior to the event can go a long way to making it a success and getting you invited back. Stan

### **Upcoming Public Service Events**

The Groton Road Race is already in the planning stages. It will be April 27<sup>th</sup>. Erik KA1RV is the contact for this event.

A number of other public service events are listed in the KD1SM/KD1LE Public Service List.

### **NVARC Slow Speed Net**

The 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.

### **Board Meeting Minutes 12 Dec**

The meeting started at 7:40 with Eric (KA1RV), Stan (KD1LE), Bob (KE1ED), Bruce (K1BG) and Stew (K1YET) in attendance.

Stan brought up the issue of communicating the availability of shelters in the area towns during an emergency. The issue is not so much what the local hams could do as it is how the general public is informed of the shelters. The consensus was that this information was probably provided by the local town communications centers (police departments).

We got a mention in the Times Free Press by George Ux, the Pepperell Emergency Management Director. He had asked we pass around the availability of the shelters, which we did. I wish we could have done more.—ed

Stan suggested that local hams monitor 146.49 MHz during times of possible emergency in case there is something that we can do.

Stew reported that there was little correspondence since the last meeting. Material of interest to the general club will be at the meeting.

Bob brought up a concern regarding the technical level of the newsletter articles. He would still like to see simplified material on basic theory. This led to a long discussion about how we could accomplish this. The early technical sessions prior to meetings did not seem to be the answer. Several other suggestions were made such as: simple club projects done as vehicle for training; Specific theory classes as opposed to license classes; resumption of the technical sessions prior to the regular meeting; participating in classes such as the ones held in Ayer on Monday nights.

Anyone with any ideas on how to help our less technical hams in this regard is encouraged to give suggestions at the meeting.

Bruce reiterated the need to get more people active at the meetings and more specifically how to attract new young people into the ranks of Ham radio. Again, suggestions are solicited from the club members.

The meeting closed at 9:00.

### **From the ARRL NE Directors Bulletin**

#### **ST. JOHNSBURY STUDENTS CONTACT MIR**

Assistant Director Deb Clark, KB1AOL, reports on a recent exciting event at St. Johnsbury Academy in Vermont.

"Shortly after noon on Friday, November 8, an 'international incident' took place in St. Johnsbury, Vermont. In one of those memorable moments in amateur radio, months of planning culminated in a 'once in a lifetime' contact for the students and faculty of St. Johnsbury Academy.

Thanks to the combined efforts of Mike Seguin, N1JEZ, Bruce Burke, N1TTV, and some two dozen students and teachers of St. Johnsbury Academy, a contact was made with astronauts John Blaha, KC5TCQ, and Vladimir, R0MIR, aboard the MIR space station.

Mike, N1JEZ, had prearranged the contact with John Blaha, and sixteen questions were asked and answered within the ten minute window of the satellite pass. Most of the student participants were newly licensed Technician Plus, although two of the youngest were Extra class.

St. Johnsbury Academy is no newcomer to the stress of completing difficult contacts in Amateur Radio. Last year this high school placed fourth in the National High School contest held annually in February, and is looking forward to improving their standing in the February 1997 contest.

Deb adds that several members of the student body were directly motivated to sign up for the licensing course as a result of this event and several of those already licensed are planning to upgrade. This is amateur radio at its

best ... providing an educational and exciting experience for these students. Congratulations and "well done" to N1JEZ, N1TTV, and everyone else who worked to arrange and implement this unique event.

#### **OCTOBER FCC NEW LICENSEE STATISTICS SHOW A SMALL UPTURN**

We had a total of 82 new licensees in October in New England with EMA leading the count with 22. Thanks to all the capable and tireless instructors who help these new Hams get into our great Service!

#### **LICENSE NUMBER**

Novice	2	New Women licensees	15
Tech	72	Youngest new ham	10 yrs
(EMA)			
Tech +	8	Senior new Ham	78 yrs
(ME)			
TOTAL	82		

Now it is up to all of us to welcome these new licensees and to get them involved in our clubs, operating activities, and public service events.

#### **MAINE AMATEURS ASSIST IN CUMBERLAND COUNTY FLOOD EMERGENCY**

Cumberland County ARES/RACES members were recently called out to assist Red Cross and Emergency Management during a local flood emergency. Telephone callup began at 1500 on Monday and activities continued until 1200 Tuesday. N1AKP made several announcements on the Southern Maine Emergency Net and manned the Red Cross HQ station from Monday through Tuesday afternoon, running almost continuously. KB1BMG and N1XKY manned Deering HS Monday evening through midnight and then Yarmouth Middle School on Tuesday. AA1NH relieved N1AKP at Red Cross HQ from about 1900 through midnight Monday. Other stations manning shelters most of Monday evening and night included N1KIF, N1TKE, N7NYV, W1HZE, N1RXB, and N1NCCB. The Cumberland County EM EOC was manned by AL7DL from Monday afternoon through Tuesday. All stations did a superb job, although minimal traffic was passed due to the fact that landline communications remained in place throughout the operation.

We are fortunate to have relatively few disaster situations in New England, especially when compared with the hurricanes of the Southeast, the fires in the West, and tornadoes in the Midwest. This makes it even more important that we are ready when the occasional emergency does occur. Our served agencies such as Red Cross and Emergency Management are depending on us to be there when they need our assistance and unique capabilities. More importantly, our friends and neighbors are depending on us. As we enter 1997 and the "ARRL Year of Public Service", make sure you are equipped, trained, and committed to respond when called upon as a member of the Amateur Radio Service.

#### A SMILE FROM THE VANITY CALL CALLSIGN ACTIVITY

Along with the frustrations which many are feeling with the Gate 2 delays, a humorous story comes along every now and then. Owen Garner, K1AF, has reported one such event to ARRL.

"While having a casual rag chew on 160 CW on Nov 7 at 0017 UTC, I mentioned to Dave that I was waiting for my new call to arrive. While still in QSO, he checked the Internet QRZ address and found that I already had it. So I began the QSO as W1SBM and completed it as K1AF".

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

Happy Holidays everyone! November income was a whopping big \$15.00 from memberships and \$2.00 from ARRL renewals. Expenses again exceeded income at \$36.55 for QSL bureau postage and newsletter copying plus \$38.40 for newsletter postage (two months worth). Current balances are:

General Fund: \$570.90

Education Fund: \$448.34

When making out your ARRL renewal, make your check payable to NVARC and hand it and your renewal form to me. Personal ARRL renewal service! AR Ralph KD1SM

#### 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.

#### Some Things to Ponder

Why do "fat chance" and "slim chance" mean the same thing?

If you can't drink and drive, why do you need a driver's license to buy liquor, and why do bars have parking lots?

If Seven Eleven Stores are open 24 hours a day 365 days a year, why are there locks on the doors?



Did you ever wonder where all the white goes when snow melts?



#### Nashoba Valley Amateur Radio Club

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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

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.

Packet address: PEPMBX (145.09 MHz)