



Radio Amateur News & Views

The Official Journal of the Radio Amateurs of Northern Vermont

MAY, 2001

10 Great Years of RANV

Vol. 11 No. 5

EMERGENCY COMMUNICATIONS AND PREPAREDNESS The May 8th RANV Meeting

Every now and then, we are called upon to provide communications in a real emergency – an emergency so real that a delay of seconds can mean life or death. Are you ready for the challenge? Is your HT battery charged and ready? Do you even have your HT with you?

With a plethora of public service events coming up in May and June, it is time to take a hard look at the techniques used by successful communicators and how they prepare. The first thing we will learn is that emergencies happen at any time and that excellent communicators always have a working radio at the ready. You cannot help communicate if you left the rig in the shack! Another important skill is knowing what equipment and supplies to pack when you go off to provide emergency or public service communications. Then, when you get on the air during the disaster or event, it is crucial to know how to collect and disseminate information as quickly and accurately as possible. All of these scenarios will be covered.

Activities start around 6PM with Snax-at-Zacks. The meeting starts at 7PM sharp. Hope to see you all there!

MEMORIAL DAY PARADE

All hams are invited to help out at the Essex Memorial Day Parade, held on Saturday, May 26th. Our job is to be marshals to ensure safe and efficient movement of people down the parade route. This is probably the easiest and most fun amateur radio public service event there is! All you need to do is to march down the parade route with your assigned group, keep in touch on the radio and have everyone cheer as you walk by! At the middle of the parade is the RANV "Float" consisting of the W1SJ van decked out with

antennas and banners. And believe me, everyone in town notices it!

All you need to take part is a reliable HT and a spare battery. I'll get you the special orange amateur radio hat and the parade committee will provide a bright orange vest. We meet up at 7AM at St. James Church, just to the east of the Fairgrounds. Early posts will be done by 10, the latest anyone is needed is until noon. Couldn't be easier! If interested in helping out at the Parade, contact Mitch at 879-6589, E-mail: w1sj@arrl.net.

VERMONT CITY MARATHON

by Carl KC1WH

On Sunday, May 27th, the Vermont City Marathon will travel through the streets of Burlington. This 26.2-mile event starts at Battery Park, takes a complicated route around the city, and ends at Waterfront Park. A 5-leg relay race runs simultaneously with the Marathon. Aid Stations along the route offer fluids and medical help for distressed runners.

Both the Marathon and relay team registration closed in early February, filling the 5000 runner limit (*necessary due to the physical limitations of the course*). This is a very popular race, voted among the top ten marathons in the U.S. Many unhappy slower runners don't get registered.

The Marathon has the largest Amateur Radio team of any event in Vermont. Hams provide communications support for the aid stations, shadows for race officials, pickup vans, medical tents, information booths, trailing bikers, and Net Control. The Net helps identify problems, for which the Marathon Staff can focus resources to solve.

Amateur Radio operators are needed to join the communications team. The only radio gear required is a 2-meter HT and an extra battery. Volunteers get a T-shirt and an Amateur Radio cap. If you're interested, call me at 878-8232 or send an E-mail to kc1wh@hotmail.com. Have a great time, make some new friends, and use your radio skills!

OUR LAST RANV MEETING

by Grant K1KD, Sec'y

The last RANV meeting was called to order at 7:20 PM on April 10th. We began by going around the room with introductions. In all, 20 hams attended the meeting. An announcement of congratulations went out to Mitch W1SJ for winning the Fox Hunt last month. His fox tracking skills led him to Bolton Notch Road where he found the fox – Bill N1IRO. Mitch earns the right to be the Fox at the next Fox Hunt in June. Nice work, Mitch!

The presentation for this month was a continuation of last month's program on Vintage Radios. We were joined again by Todd KA1KAQ, Mike W1RC, and Rene W1GWD. They gave us a neat history lesson on radios of years past. The best presentation is one that has lots of show-and-tell items, and these guys had plenty to go around! Todd started the program off by showing us examples of vintage radio components – vacuum tubes, crystals, etc. It's amazing to see how far we have come in electronics, and how much bigger electronic parts were back then!

We learned about the history of the Collins KWM-2A from Todd and Mike. Then Rene told us about the Hallicrafters S-38 short-wave radio. This low priced, postwar redesign was a hit in the ham radio market. Other equipment on display was a Shure 55SW microphone, a Hallicrafters SX-42 and S-38B radio. Rene pointed out that working on vintage radios is educational and rewarding. Making modifications to improve old radio designs is a great way to learn about old gear and end up with a nice piece of equipment. For example, even though many early radios sounded great, they suffered from frequency instability. With a little effort, these rigs can be modified for better stability. One word of caution – old radios commonly contained much higher voltages than today's rigs. Always use caution when working with any piece of electronic equipment!

We certainly appreciate Todd, Mike, and Rene giving us a perspective on ham radio equipment of the past. To learn more about vintage radios, pick up an old *Collins Collectors*, *Electric Radio*, or *QST* magazine. And when moving one of these things just remember – lift with your legs, not your back!

THE PREZ SEZ

by Paul AA1SU, President

The warmer weather is finally here! This means that it's time to get out and tend to the yard and stuff. Stuff like antenna repair. The winter was hard on my two wire antennas, as both have become detached at one end and are sagging badly. This did not stop me from making many contacts during the 160 Meter Contests, however. The sunspots are not over, so get out there and make your antenna repairs and/or improvements.

It is going to be a busy season for hams to volunteer for some special events. So, our May meeting about emergency communications preparedness will be a must attend for the upcoming parade, marathon, bike rides, etc. We will also be asked to participate at the *Vermont Public Television Auction*. These are popular events for hams to get out to, help the community, and socialize.

The number of you that have upgraded your amateur radio licenses is increasing every week. This is very encouraging news for ham radio. More and more of you are learning the code, to get those great HF privileges. More power to you. But, don't forget to keep up on your code skills throughout your lifetime with the hobby. CW is a great way to use ham radio, and we don't want to hear empty CW sub bands in ten years. Plus, as you know, Morse Code will cut through the noise level better than SSB. This is especially important for adding to your countries worked list. That's it for this month. Hope to see you all (*about 100*) at the next meeting. We have a lot of fun. So, be sure to drop on in.

Contacting RANV

In Person: Meeting, May 8th, 7pm,
O'Brien Civic Center
113 Patchen Rd, So. Burlington

By Mail: PO Box 9392,
So. Burlington, VT 05403

By Radio: 145.15 repeater

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Please send submissions for the newsletter to the editor, W1SJ.

FIELD DAY PLANNING

By Mitch W1SJ

Now is the time to plan your involvement in Field Day, held on June 22-24. Although we usually have 30+ amateurs involved in some form of the operation, that is a rather small number considering that our membership is over 100. Field Day is amateur radio at its finest. All aspects of amateur radio are represented: operating, contesting, emergency preparedness, public service, power generation, antennas, HF, VHF, satellites, digital, training, public display, etc. There must be something in this list which interests you! Make a point to not only visit, but also get involved in a piece of the operation.

Everyone wants to operate HF SSB. However, operating under Field Day contest conditions is some of the hardest operating there is. The bands are crawling with inexperienced operators all calling on top of each other, often causing seasoned operators to talk to themselves! To the newcomer, it is very frustrating and often downright frightening!

We have other stations which are much more user friendly. Our VHF station often sits idle. The VHF station is actually 4 stations: 6 meter SSB, 2 meter FM, 2 meter SSB and 70 cm FM. Operators rotate between these bands looking for stations to work. When they find someone, they then pass the station between the bands. Knowing where to point the beams takes a little practice, but these bands are a lot less crowded and it is certainly possible to stop and chat for a few moments. There is also the possibility that 6 meters will open up and get just as crazy as HF. This happened two years ago and boy what a show it was! To facilitate the operations on VHF, we have started a signup sheet for operators. Let me know which 4-hour block you would like and we will have the rig warm and ready.

Another opportunity for new ham operating is the Novice station. Per the rules, only Novices and Techni-

cians can operate this station. No-code Technicians can operate with a control operator who has code credit. The focus of this station is 10 meters. When it is open (*and it is supposed to be*), it is tremendous. Hundreds of stations can be easily worked. When 10 meters is dead, this station will be on the Novice cw bands on 80, 40 and 15 meters. If you are working on improving your code speed, there is no finer way to do it. Of course, we will have plenty of help, should you need it!

Housed with the Novice station is the Satellite station. You cannot simply hop into this station and make a contact – it takes some learning the ropes and practice! We plan to hold a couple of practice sessions before Field Day. Because so few hams are locally active on satellite, we would like to build up the skill levels. You will learn all about track-

“Don’t wait to be invited – you already are.”

ing satellites, Doppler shifts, circular polarized antennas and how to handle 2 VFOs at the same time! It’s a load of fun.

There is also a flurry of activity to gain bonus points during Field Day. Some of these bonuses involve passing message traffic. Often, we seem to have someone who knows the ropes and it gets done quickly. Last year N1SRC and W1DEC learned on the fly! We would prefer the learning came before Field Day.

Fred N1ZUK will be setting up a station which will send both APRS tracking and Slow Scan Television. The tracking sends GPS coordinates and shows various Field Day groups on a map on the computer. We can spy on our Field Day neighbors and see where they’re at. Fred also plans to take digital pictures and send them via SSTV to the world and receive pictures from other sites. We will have a fully operating packet

node running as well. This is a great opportunity to learn how these modes work.

Of course, there is setup and take down. Setup is one of the greatest antenna classrooms. You get to see how the antennas go together, bolt by bolt. You also get to see how not to do things – via the frequent mistakes and miscues.

At Field Day, everyone sees the antennas and stations and thinks that is the whole story. It is virtually the tip of the iceberg! Many months of planning and many years of learning create the Field Day operation we put on each year. The antennas and supports you see at Field Day don’t happen by accident. They have evolved over the years into systems which work efficiently and which are fairly easy to erect on site. The same thing can be said of the infrastructure of the site. The computers, generators, wiring, housing and even the furniture have evolved over the years. I will be the first one to say we

could stand to improve on some of these. We always have to re-evaluate and try new and better systems to improve. Maybe your calling is in helping to design and plan new Field Day systems. If so, we would like to hear from you.

If there is a theme to this article, it is to get involved in Field Day. You worked hard for your amateur license because you enjoy this hobby. Since Field Day involves everything about amateur radio, shouldn’t you be involved? Don’t try to think up bad excuses why you can’t come. Don’t wait to be invited – you already are. Do the following: 1. Contact W1SJ or AA1SU and let one of us know what part of Field Day you are interested in; 2. Plan to come to the organizing meeting on June 18 at the home of W1SJ; 3. Come to Field Day. We will provide all the information and training you need!

CONTEST CORNER

by Paul AAISU

The upcoming five weeks will provide good practice for those of us gearing up for Field Day. Remember that Field Day is an important emergency preparedness exercise, and it is crucial that we are ready for it. You can always use a small contest to hone your *Search & Pounce* skills, and the bigger contests will help you with your *Run* skills.

Starting with the weekend of May 11th, you can search for hams from Nevada and Oregon, as they will be having their QSO Parties. The two states are in the same part of the country, so if you find a station on a particular band, chances are that you will find more of them as you tune around. This can also teach you a lot about propagation: knowing when the bands will be open to certain areas. Details are in May QST page 106. The Nevada contest starts at 8PM Friday and ends at 2AM on Sunday. The Oregon contest starts at Noon on Saturday and ends at 10PM that night. You send RS(T) & State, and they send RS(T) and County.

For those of you wanting to bone up on Six Meters, there is the *50 MHz Spring Sprint*. It's a short one: 7PM to 11PM on Saturday, May 12th. The exchange is Grid Square, which, for most of us, is FN34.

A week after the Dayton 2001 Hamvention is a popular CW Contest called the *CQWW WPX CW*. Details are in March QST page 114. There are several categories to get involved with, including Rookie. WPX is an abbreviation for *Worked All Prefixes*. Your prefix, such as KB1, N1, KK1, or W1 is the multiplier. So, those of you with interesting vanity calls might actually be considered "Rare DX" in this one. The exchange is RST and a sequential serial number starting with 001.

Here are some CW contesting tips. If you are not good with some of the higher speed code, listen for a readable station, higher up in the band. Write down his call sign and the sequence number that he is sending out on scratch paper. Do this for a few rounds, then send your call sign at a comfortable speed. If he hears you, he will send back your call sign and your report. The other station may or may not slow down for you, but by copying ahead of time, you should be able to copy his number. Then you just send back 5NN and a serial number. All reports in contest are 599, or 5NN for short. To break a pile up, pause before sending, and send your call sign slowly and flawlessly. A well sent call sign, even at low power, has a tendency to stick out to a ham besieged with callers.

Also on this weekend, is a QRP CW Contest called the *Hoot Owl Sprint*. It is just 4 hours long and starts at 4PM on Sunday, May 27th. It takes place higher up in the CW portion of the band from the WPX test, but I'm sure there'll be some confusion anyway. Details are in May QST. During the first weekend in June, one can find the *Major Six Contest*. It starts at 7PM Friday, and ends at 11PM on Sunday. Details will be in June QST. Remember to get your fun in on Six Meters before the sunspots go away.

And finally, on June 9th is the ARRL *June VHF QSO Party*. It starts at 2PM on Saturday, and ends at 11 PM on Sunday. The exchange is Grid Square. Some popular FM frequencies are 146.55, 146.58, 446.0, 52.525, and 223.5 MHz. Stay off of 146.52 MHz, as this frequency is off limits to contesters. It helps to turn the squelch off on your radio to listen for the weak signals all weekend. Mitch will once again be operating WB1GQR from atop Mt. Equinox, and will point his beams north at the top of the hour to listen for us. Give him a contact!

Net month: Field Day Field Day Field Day.

HOSSTRADERS

Reminder – Just as you receive this newsletter it will be time to head down to Hosstraders. The new location is the Hopkinton State Fairgrounds in New Hampshire. Take I-89 to NH Exit 7 Davisville, go left and then go right and the fest will be a little over a mile on the left side. The fest opens at 9AM on Friday, May 4th and winds down 1PM on Saturday. Try to be there both days for the best deals.

The 145.15 repeater should take you virtually all the way there, although it will be spotty for the last 25 miles. The 145.33 repeater is a popular frequency near Hanover. At the hamfest, check in on the 146.67 repeater to find the gang.

COMING UP

There are a ton of amateur radio events coming up for the next month. It seems like something is going on every weekend. Let's summarize what is going on.

This weekend is *Hosstraders* in Hopkinton, NH. Details in the article above. On Sunday, hams will be helping out at the VPT Auction. Contact Sam N1PDL for details.

Don't forget that the RANV meeting is this Tuesday, May 8th. On Saturday, try out the Six Meter Spring Sprint.

If you have a few free days and don't mind driving 14 hours, the Dayton Hamvention is May 18-20th. You really should visit this giant convention at least once! Can't go? Look for Event Station W8BI on 7.270 and 14.270 MHz.

On Memorial Day Weekend is the Essex Parade and Vermont City Marathon. Details on page 1 of this newsletter.

June 1-2nd is the Rochester, NY Hamfest. It's a 7-hour drive, but it is a nice show, if the weather is nice.

June 9-10th is the VHF QSO Party. Either join up with a group or go out and make contacts on 6 & 2 meters and UHF.

June 12th is the RANV meeting on Fox Hunting, This will prepare you for the RANV Fox Hunt on June 15th.

Whew! What a flurry of activity!

THE LOOP UNDONE

Another Mangled Antenna

by Eric NISRC

A while back, I tried to use my infamous mangled 40-meter loop to contact a friend in Canada on 80 meters. The signal was detectable, but weak. The real trouble came when I responded. I was able to tune up to a low SWR even though the antenna is nearly a short circuit on 80 meters. However, when I transmitted, the tuner emitted some odd noises and the reflected power shot up. I had made a sort of spark transmitter. I knew that the setup would be horribly inefficient, but arcing likely would cause RFI, damage, and definitely a bad signal. The moral of this is that even a very poor antenna can work, but a really bad match can result in unacceptably high voltages.

That did it. Time for a new antenna! No way was I going to manage an 80 meter loop, so I got out the wire and made an 80 meter dipole. I fed it with some 75-ohm coax I had lying about, only because it was available. You may hear that dipoles are 75 ohms, but that is only in free space, much more than a half wavelength from ground. Furthermore, the TV coax I used has a miserable shield braid that will not solder, but a crimp connector can work and that can be soldered to the antenna wire. I waterproofed the joints with goop.

In order to get the ends up a bit, I wanted to string the dipole from one tree to another. My chimney was near the midpoint, so I found a 10-foot PVC pipe and mounted it on the chimney. It is rather flexible, which will limit stress on the chimney. I can keep it straight by adjusting tension on the 2 legs of the antenna and the feed line. That puts the midpoint about 30 feet above ground. Being lazy and having read the NVIS information at Milton, I wondered how high to get the ends of the dipole.

A session with NEC4WINDOWS modeling and the *Antenna Book* produced the observation that low dipoles are not very directional, except straight up. Therefore, there is no advantage to getting a nice straight dipole if it is less than a half wavelength above ground, but I did find that if the ends are very low the feed point impedance drops, so some height is useful. I settled for about 10 feet up. One tree was a little too close to the wire, so I just ran the insulated wire over a branch and hung a weight on it. Getting the middle of the dipole up does affect the amount of signal to the horizon. If the antenna is low, more signal goes up than out. In this case, my goal was local work, so I mostly wanted to just keep it off the metal roof.

A comparison with my 40-meter loop found that most 80 meter signals are 10-15 dB stronger off the dipole than off the squashed loop. This is actually not much help on receive since the noise came up as much as the signal, but now, even though the match is not great, it is in the range the tuner can handle without sound effects.

My friend on the other end is using an end fed 20-foot wire. I must therefore have a pretty good signal if he is to hear me. As W1KR told me, almost any antenna will work. I still want to put some better coax into service, and I may even add a 20meter dipole element. That will just have to wait for next winter.

FOX HUNT RESULTS

by Bill N1IRO

It was an exciting spring fox hunt, with N1IRO and KB1FLG hiding on the Bolton Notch Road in Bolton. Once the foxes were narrowed down to a particular section of the county, they were still difficult to pinpoint. Inevitably, the hunters found them. Some of the hunters spent the last few minutes of the hunt very frantic, as the hunt was about to end as they closed in.

The clues were:

1. We're not in MILTON.
2. If you have a bedpost, you might put a BLANK in it, if you get lucky. [Notch]
3. When you pass "GO" divide by 100, take the result and make sure you're North of it. [Collect \$200 when you pass go: $200/100=2$: North of Route 2]

Fox hunt results:

8:17PM	W1SJ & W1DEB
9:55PM	N1NTT & KB1FLE
10:05PM	N1YWB et. al
DNF	KB1EXM
DNF	K1UC

CODE PRACTICE

by Leela KB1EZD

When I was a newly licensed ham, my brother, my dad and I would frequency scan the airwaves. One night when we were all upstairs, my dad ran into a code net on the Plattsburgh repeater, 147.15 MHz. The code net runs Tuesdays and Thursdays 8-9 PM. They send speeds of 15, 13, 7 and 5 words per minute. When we were waiting for our new antenna to arrive, we would go up onto the roof so we could be high enough to check in. I have increased my speed to 15 words per minute by the use of the net. So, if you are hoping to increase your speed, check this net out.

ACHIEVEMENTS

A number of RANV members have earned operating achievements. Paul AA1SU just received his 5 *Band Worked All States* Plaque number 2753. Mitch W1SJ received a first place certificate in the *Vermont QSO Party*, for a score of 325,155, which sets a new record.

HOSSTRADERS
Friday-Saturday May 4-5th
Hopkinton, NH Fair Grounds

NEXT MEETING
“Emergency Communications”
Tuesday, May 8th, 7PM
O’Brien Civic Center

RANV

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South Burlington, Vt 05407

<http://www.RANV.org>