

RADIO AMATEUR NEWS & VIEWS

The Official Journal of the Radio Amateurs of Northern Vermont

June • 2017

An ARRL Special Service Club

Vol. 27 No. 6

NEXT RANV MEETING - June 13TH

Bob vs. Bob – Coax soldering, crimp soldering, crimping

During the first half of the meeting, we will demonstrate how to attach coax connectors with soldering, crimp-solder and crimping. It will be Bob, **KB1FRW** soldering PL-259s and Bob, **KB1WXM**, crimping his heart out.

The second half will discuss the new Field Day site and all the changes.

VHF QSO PARTY – JUNE 10 & 11

Mitch W1SJ

The ARRL VHF QSO Party will take place this coming weekend, June 10-11. Activity in this event has fallen off in recent years, and it would be great if we can see resurgence in activity. All you need is a Technician license and a radio to take part in this event. With 2200 hams in Vermont, we should be able to put a lot more people on the air!

The event starts at 2 PM Saturday and runs until 11 PM Sunday. There are a number of ways to play depending on your equipment. If you have an HF transceiver with 6 meters included, get on 6 meters and make contacts. There are often Sporadic E openings in the June event, so keep listening and you MIGHT be rewarded with contacts all over the country. No antenna for 6 meters? Use a 40 meter dipole – it should load up on 6! Or else cut yourself a simple dipole – it should be a bit over 9 feet long. Of course, if you have Yagi for 6 meters, that would even be better. Look for activity between 50.125 and 50.150 MHz – and you should at least hear me! If you have a 2 meter SSB radio, look around 144.200 for activity.

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South Burlington, VT 05407

Web: www.RANV.org

Reflector: groups.yahoo.com/group/RANV

Meetings: 2nd Tuesday • 7:00 PM
Wheeler House
1100 Dorset Street
South Burlington

Repeater: 145.150, PL 100; WB1GQR

New Hams, Mentoring:
RANVMentor@gmail.com

Just have a duo or single band mobile? Not a problem! The magic frequencies are 146.55 and 446.00 MHz. Tune to those frequencies and monitor all day – you are bound to hear something. Or, for more fun, head up to a hill, such as Mt. Philo, or Mt. Mansfield.

You will hear a lot more stuff from the higher locations.

I'll be on Mt. Equinox. Look for me at the top of the hour when I turn the beams north and check out the FM frequencies. See you in the VHF QSO Party!

FIELD DAY CHALLENGE

Mitch W1SJ

"Hey what are you guys doing for Field Day – we haven't heard anything!"

For the last month, we have been dealing with Field Day site issues. The site owner, Champlain Solid Waste District, gave an easement for VELCO to build an access road across the site, just to the left of the GOTA tent. The field was marked for this last year, but nothing came of it. When we checked on the site last month, half the hill and trees were scooped away to make room for what looks like a four lane highway. The site of the CW station is now an executive swimming pool (sediment pond). As Joni said over 47 years ago, "They paved paradise and put up a parking lot..." Construction is still going on and we do not have permission to access the hill.

So, with a heavy heart, we went about the business to locate a new Field Day site. This was hampered by a busy schedule (Near-Fest, Dayton, Marathon) and the consistent rain each day. What we found out is that finding a suitable site is not all that easy. We are one of the pre-eminent Field Day groups in the country, placing in the top 5 for a long time. Our site is engineered to help with this success. We really do set up our Field Day stations a lot differently than other groups. So just finding an open field is simply not suitable for what we do. We need large separation along a north-south corridor, vehicular access (those towers are heavy), suitable trees and a degree of security. We thought we might be able to relocate Field Day at our meeting location at the Wheeler House, but we found this difficult to do, and our request was turned down anyway. I really got a renewed appreciation for what the Dayton folks had to do to relocate 25,000 attendees from a sports arena to a fairground.

We finally settled on a plan to move the entire site 500 feet further south down Redmond Road. The stations should fit OK, and we have the required spacing and room to hang antennas. I'll be working the rest of the month to figure out the engineering to make the whole setup work.

In the meantime, we have a Field Day to run. It is the same drill. We set up antennas on Friday, set up stations on Saturday, make lots of contacts and rip it all down on Sunday. We will need setup and takedown people, operators and maintenance people. Not only will we be challenged with

working at a new site, but propagation has been absolutely pitiful. Our big money band, 20 meters, has been quite lame. Doing well during Field Day will mean that we will have to make the right strategic band decisions and then make the contacts – even if it is hard work. This is the challenge of Field Day. If this was a real disaster we would still have to work with poor propagation. Tough conditions build character. I'm not worried, since we have plenty of characters!

You should have received an Email with the link to the Field Day survey. Please fill this out right away and indicate what you would like to sign up for. This helps me figure out where everyone will be working so that we can keep things as smooth as possible. Some of the missing people are back from last year, but then we will lose a few others, so we need everyone's help. If you have never done Field Day before, please consider jumping in. It is ham radio's greatest classroom.

Here is the schedule of events:

- Tue June 13 RANV Meeting: Field Day and portable antennas
- Mon June 19 Planning meeting at W1SJ
- Fri June 23 Antenna setup starting at 2
- Sat June 24 Station setup at 10; first CQ at 2
- Sun June 25 Event end, station take down

PARADE AND MARATHON DOUBLEHEADER

Mitch W1SJ

A rainy miserable week gave way to two nice sunny days, just in time for the Essex Memorial Parade and the Vermont City Marathon. It was wonderful luck, and the rains returned the very next day!

On Saturday, we had our usual crew on hand to serve as Parade Marshals to help get the over 100 different marching groups and floats lined up in the correct order. There was nothing remarkable to report like we have had in some past years. The groups lined up, marched down the 1 mile parade route and safely returned back to the starting point. The RANV float blasted out some loud high speed CW which I'm sure will produce a rush of new hams to join us!

Thanks to [AA1SU](#) [K3BH](#) [KB1FRW](#) [KB1ZEB](#) [N1LXI](#) [N1WCK](#) [N1WQS](#) [W1DEB](#) [W1SJ](#) for their help at this year's parade.

The nice weather remained in place the next day for the 29th running of the Vermont City Marathon. Ham planning for this event starts at the Marathon Command meeting in March, following through operator sign-up, another meeting, repeater and remote receiver install, ham radio meeting and the antenna install at Net Control. Fresh on everyone's minds was the Marathon shut down last year due to high temperatures. A number of changes were made to deal with this, specifically, starting the event an hour earlier and having more detailed procedures in place on how to conduct a shut down or course diversion. On the ham radio side, I made a number of changes with moving some personnel around.

We were ready to go! And the result - mostly routine and boring. The Race Director told me he liked that a lot! Supplies were in place and there were no issues with running out of water. The cooler weather early on meant fewer medical calls, even though the temperatures did get eventually high enough to bring out the red flags on course. But by that time, most of the field had finished. With the earlier time, most of the volunteers were home by noon, allowing for a full afternoon of fun.

With over 30 hams all on site during the race, the Vermont City Marathon is the largest ham radio public service event in Vermont, and the most technically challenging. When we polled everyone at the ham meeting, most indicated that they had been doing the Marathon for over 10 years and few indicated 20+ years. Run Vermont officials noted that we have more experience at this than any other group who does the race!

Thanks to RANV members **AA1SU K3BH KB1FRW KB1RQX KB1THX KB1WXM KB1YGP KB1YTO KB1ZEB KC1APK KI6ISG KK1L N1LXI W1SJ W4YFJ** plus 16 others who come from all over Vermont plus Massachusetts and Delaware to make the event run smoothly.

DUES INCREASE

Mitch W1SJ

It's had to happen at some point. After 26 years without a dues increase, the time has come to bump up the dues. The \$15 we get per year simply does not cover the expenses for newsletters, insurance and other sundry expenses. And we manage to get a lot of services for free and these may go away at any time. A check of other radio clubs throughout the Northeast show that we are the least expensive, full service club to join. You do get your money's worth as a RANV member!

The new dues will be \$20 regular, \$25 family and \$15 student.

We will give you a freebie – renew at the old rate through this year – BUT – you have to renew BEFORE your membership expires. Look on your mailing label on the newsletter for your expiration. If you pay by the last day of that month, you get the \$15 deal. After that, it's \$20.

We have been giving 3 months grace period for those who were late in sending in dues. Sadly, we will have to stop that – when your membership expires, you will no longer get the FB RANV News & Views delivered to your mailbox or inbox.

SECRETARY'S MINUTES

Kathi K1WAL

We had 16 in attendance at our May meeting.

The meeting began with announcements about our upcoming public service events with the Essex Memorial Day Parade and the Vermont City Marathon.

Mitch **W1SJ** gave a brief report the repeater which has been acting sporadic where it transmits fine but sometimes goes deaf when receiving. While many wives are familiar with this situation the repeater problem is most likely electronic and is being investigated.

Bob **KB1WXM** gave an update for the *Vermont State Parks On The Air*. He and others will post when they go out on an activation. The Vermont Park Department is being very supportive and will create a link on their Facebook page.

Tim **KB1THX** mentioned that he had gone by our Field Day site and saw that it was dug up with lots of heavy equipment on the site. It is doubtful we will be able to use this location this year (and possibly next year) so an alternative site is being sought.

It was announced that dues will increase to \$20/year. For the remainder of this year dues will remain at \$15 *if you renew on time*.

Please let Dave **KC1APK** know if you want the RANV Newsletter by e-mail instead of regular mail. This will help offset the cost of printing and postage.

Paul **AA1SU** will provide snacks for the June meeting.

Presentation and Activity:

Mitch **W1SJ** gave a quick overview of Foxhunting before we dispersed to give it a try.

Foxhunting, or Direction Finding, is when you use a radio and some kind of directional antenna to search for a signal. The signal being sought can be a malicious transmission or a transmission that is being sent out by someone to help you locate them. A playful Foxhunt is a fun way to practice radio directing finding skills.

Mitch said when using an antenna to determine location you need a clean unidirectional antenna. Clean means the beam is straight out. The antenna must be rotated in the same plane. He cautioned that directional finding is fraught with obstacles. He strongly recommended using a map since signals are bounced off of things (mountains, buildings, etc.) By plotting on a map you will notice patterns. If you don't use a map then know the area and the terrain.

A typical setup is an HT, an attenuator, and a handheld Yagi antenna. The S-meter on the radio is not always good so an attenuator is needed. An attenuator is effectively a boatload of resistors that reduces the amplitude of a signal without

adding distortion to it. The amplitude of a radio signal is the power, so an attenuator is used to reduce the power of a transmission. As the incoming signal strength increases to the point where whichever way you turn you can decrease the strength to fix the location of the 'fox' a little closer. Eventually you must determine the distance from that point.

Mitch had placed some transmitters in several locations around the Wheeler House, with one inside and two outside. One of the two outside lost power but that didn't interrupt the fun. One outside 'fox' transmitted 12 seconds on/ 24 seconds off. The other two were continuous. Inside was interesting since there were several floors and the 'fox' could be above as well. Outside became challenging as the sky got dark.

Several of us showed up with our HTs and tape measure directional antenna but we were not aware of this thing called an Attenuator. We were able to locate, but it was much more difficult.

This past Memorial Day weekend I was watching the old 1942 WW2 movie *Destination Tokyo* starring Cary Grant. To gather information for the first air raid over Tokyo Grant put his submarine into Tokyo Bay to place a spy team ashore. There was a scene where the spies were transmitting information via radio when a Japanese vehicle came driving up a road with a delta loop directional antenna on the roof. The Japanese radio operators were trying to locate the unusual signal. I paused the movie several times trying to get a better look at what the radio equipment looked like although I'm sure they were only props. Still, that was one of the best parts of the movie and a good example of direction finding! Did they find them? You'll have to watch the movie.

FEATURED PLATE OF THE MONTH



Thanks Larry!

Got a ham plate or Amateur related vanity? Send us a picture and we'll feature it one of the upcoming newsletters.

VERMONT PARKS ON THE AIR UPDATE Bob KB1WXM

Most of the parks are open now, so the fun can begin. Two parks have been activated (Knight Point and Niquette Bay) so some advice and help can be offered. First, email the State Parks folks if you can ahead of time so they know which parks we'll be activating and when (Lucy.Dartt@vermont.gov). Second, post your future activation on the "Flora and Fauna" website (<http://wwff.co>), under the "agenda" tab.

Follow the instructions on the page



Also, you can use the Facebook page (<https://www.facebook.com/groups/292829457810746/>) to advertise your activation, or post pictures and videos after the fact.



To locate the park identifier, go to the "Parks on the Air" site <https://wwff-kff.com/> and click on "map of entities", then click on "list". Search for "VT" and this will bring up all the Vermont parks. Print the list to take with you – it's easier than having to get access to Wi-Fi in the field.



Logs in ADIF format should be submitted to the World Wide Flora and Fauna program through the call sign zone 1 manager, N1TYH



Logs can also be submitted to Logbook of the World, or other entities, such as Club Log or Eqsl.

The call frequencies for the Flora and Fauna program are:

- Phone: 3.744, 7.144, 14.244, 18.144, 21.244, 24.944, 28.444
- CW: 3.544, 7.024, 10.124, 14.044, 18.084, 21.044, 24.894, 28.044

The minimum QSO count for an activator is 44, but that can vary, so those of us who operate QRP at times, be patient.

You may notice a lot of “44” in this program. Instead of “73”, many operators will say “44” back to you.

“The term 'Lets Save the Green Planet Earth' was initiated as the slogan for the WFF program. Operators were encouraged while having a QSO with a WFF expedition, to transmit two figures.....'44'. This meant 'Forty Four - Flora Fauna' and was interpreted as the slogan for WFF.

The first digit '4' represents the four elements: earth, water, air, and fire. The second digit '4' represents the four directions: north, south, west, & east.

To this day, you will still hear operators using '44'.”

More rules and conventions are found on:

<http://wwff.co/rules-faq> .

During the summer season at the parks, there will be a lot of non-hams wanting to know about what you’re doing. This is a good opportunity to promote the hobby and get some new folks into amateur radio. The Department of State Parks encourage us to provide some educational moments for the other park patrons.

CONGRATULATIONS!

Congratulations to the following new licensee:

- **KC1HQF** – Andrew O’Brien (Bristol) - TECHNICIAN

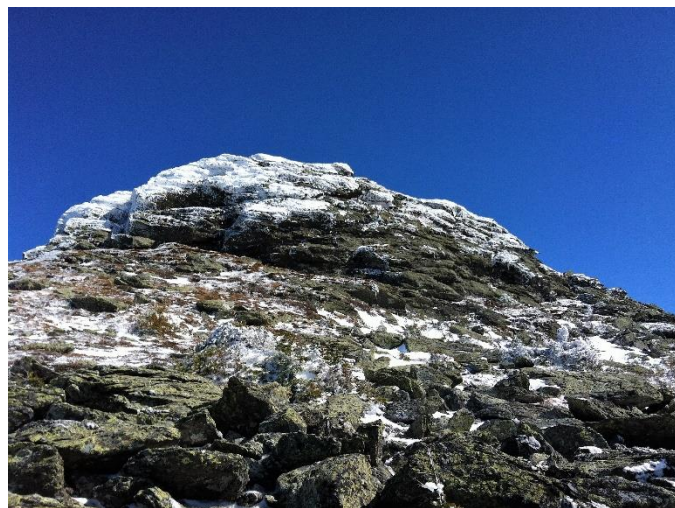
144 MILE HT CONTACT

DAVE KCIAPK

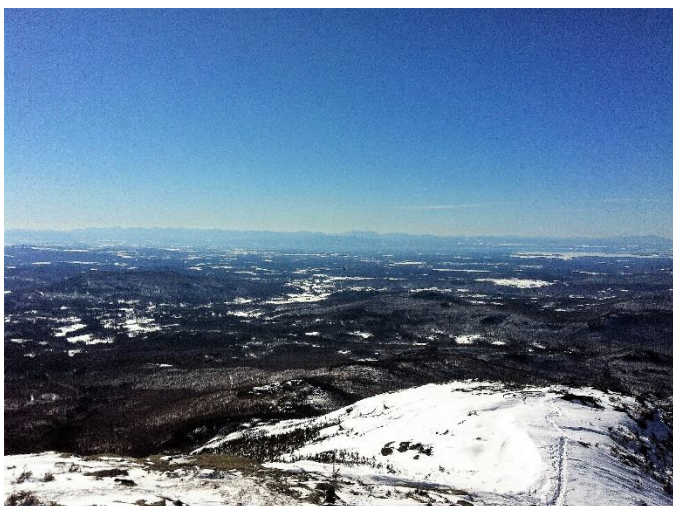
Throughout last fall and this past winter, I’ve been actively hiking and snowshoeing all around Vermont and the Adirondacks. Whenever possible, I bring my Yaesu FT1XDR HT and a backup Mountain Topper 3 Band CW only QRP rig. SOTA requires a minimum of 4 contacts to receive points for an activation. Conditions aren’t always favorable for setting up an HF antenna or doing CW with winter gloves on... On a previous hike up Camels Hump, I actually got knocked down by some extremely strong winds! So... my first strategy is to work as many “local” hams with the HT. The HF rig only comes out during good weather or if I can’t make the contacts on VHF.

I had started out the year on Mt Philo and was slowly working my way up to the biggest challenge yet... Mount Mansfield via the Sunset Ridge Trail.

On March 19th, spring conditions were near perfect... sunny, warm, very little wind, deep fluffy snow, and a crystal clear sky. After several hours of hiking with snowshoes and “Micro Spike” crampons, I finally reached the summit and quickly took out my HT.



Just below the “Chin” on Mt. Mansfield



Looking West across the Champlain Valley

At over 4,000 feet Mt. Mansfield provides a great opportunity for “line-of-sight” contacts and this day was going to be good... I worked **KB1MDC** in the Islands, **K1BKK AB1DD** and **K1ZK** in Charlotte, **KC1FBT** in Franklin County, **K2BLS** across the Lake, and two hams **VE2ICF** and **VA2MO** over 70 miles away in Quebec.



Midway along Sunset Ridge looking towards the TV antennas

The most exciting contact turned out to be **KC2WLR** who was mobile in John Boyd Thatcher State Park - south of Albany, NY and 144 miles away! Not a bad contact with signal reports of 59 both ways on VHF using a 5 watt HT!!

EDITOR NOTES

Dave KCIAPK

WE WANT TO HEAR FROM YOU!

- I hope you are enjoying the variety of articles submitted by our members! Everyone has something interesting to say, and we want to hear from YOU! Feel free to submit articles, ideas, and opinions! Items can be short, long, technical, anecdotal, etc. Share your experiences, favorite ham radio moments, and stories!
- Did you know that each newsletter costs about \$1 to produce and over 100 newsletters are sent each month? The good news is that 16 people have already signed up for electronic delivery – that saves the club \$192 per year!
- If you would prefer to receive an electronic version (pdf) of the club newsletter, please contact me at daviddblin@aol.com. I will need your name, call sign, and email address.

POP QUIZ – Answers below

Technician Question: T3A04

What can happen if the antennas at opposite ends of a VHF or UHF line of sight radio link are not using the same polarization?

- The modulation sidebands might become inverted
- Signals could be significantly weaker
- Signals have an echo effect on voices
- Nothing significant will happen

General Question: G8B04

What is the stage in a VHF FM transmitter that generates a harmonic of a lower frequency signal to reach the desired operating frequency?

- Mixer
- Reactance modulator
- Pre-emphasis network
- Multiplier

Extra Question: E2C06

During a VHF/UHF contest, in which band segment would you expect to find the highest level of activity?

- At the top of each band, usually in a segment reserved for contests
- In the middle of each band, usually on the national calling frequency
- In the weak signal segment of the band, with most of the activity near the calling frequency
- In the middle of the band, usually 25 kHz above the national calling frequency

Answers: T3A04 - B G8B04 - D E2C06 - C Good Luck!



NEWS&VIEWS

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NEXT MEETING Coax Soldering & Crimping Field Day Planning

Tuesday • June 13th • 7:00pm
Wheeler House, 1100 Dorset Street
South Burlington, VT

Upcoming, Notices, & Misc

- Steering Wheel: 3rd Tues 6:30; Ninety-Nine Restaurant, Taft Corners, Williston
- VE Exams every 2nd Friday; Red Cross Building 29 Mansfield Ave, Burlington
- Dues due? Pay online at www.ranv.org/ranvpay.html