



# RADIO AMATEUR NEWS & VIEWS

The Official Journal of the Radio Amateurs of Northern Vermont

JULY 2009

Vol. 19 No. 7

## LIGHTNING! The July 14<sup>th</sup> *RANV* Meeting

Until recently, the understanding of lightning had not advanced much beyond the general belief that it was just a large spark. Largely accidental discoveries, starting in 1989, have yielded startling insights of lightning events below, in and above clouds, often reaching to the ionosphere. Come to the July 14<sup>th</sup> *RANV* meeting and gain a new understanding of why a shelter isn't necessarily a shelter in a thunderstorm, how lightning selects (*or doesn't select*) YOUR antenna, and how that annoying QRN crash originated in the far reaches of the universe. And trust me, some of us thought long and hard about this upcoming talk when lightning touched down right near the Field Day as we all were merrily CQing along.

If any of this scares you, then come drown your fears at the *RANV* pre-meeting get together at Zack on Williston Road at 6:00. The meeting will start at 7:00 at the O'Brien Civic Center, 113 Patchen Road, South Burlington. And maybe it might stop raining.

## *RANV* SUMMER PICNIC SUNDAY 8/2

The *RANV* picnic will be **SUNDAY**, August 2nd at Kill Kare State Park in St. Albans Bay. This is early and you might not get the August newsletter in time, so mark you calendars. Note that we have moved the picnic to **Sunday** to avoid other conflicts on Saturday. We start at 11:00, and run all afternoon until 5, so there is plenty of time to work in the picnic with other activities.

*RANV* will supply park admission, soft drinks and charcoal. You bring the rest. Be sure to bring family and friends, food to eat, appropriate sporting goods and clothing and any radio stuff you would like to play with. Leave pets at home since the park doesn't allow them, and it is too hot to leave a pet in the car. **Please let Brian know how many are in your group!**

Directions: Take I-89 North to Exit 19, St. Albans. Go past the light and down the access highway 1 mile to Route 7. Make a right and head 0.5 miles into downtown St. Albans. Look for Taylor Park (*big green*) on your right and then look for Lake Street and make a left. Go 3 miles on Lake Street until you see The Bayside Pavilion at your left and a Shell station at your right. Make a right turn and head north. You will pass St. Albans Town Park. Keep going! You will only go 0.7 miles from the turn and will cross a small bridge. Right after this bridge, turn left on to Hathaway Point Road. Unfortunately, the Park sign is often missing, so pay attention. Go 3 miles to the Park entrance.

Let's have a great turnout and a great day at the picnic!

## FIELD DAY STORIES

by Mitch WISJ

In planning for Field Day 2009, the BIG question was, "How do we top last year's tremendous effort?" Last year, we managed to not only top the 2A category, but also managed a top ten finish, along with having a record level of participation. We didn't have to worry about this question too long, as we lost key players, key equipment and key antennas from last year, and the question became instead, how do we get on the air?

Little by little, we found replacements for the missing "parts". Old antennas were picked up at flea markets and we rebuilt them. Different antenna designs were put into place. And new software was checked out with different radios.

**Field Day... continued Page 4...**



The two leaders of Vermont, Section Manager Paul Gayet and Lieutenant (and acting) Governor Brian Dubie

## OUR LAST *RANV* MEETING

by Carl ABIDD, Sec'y

The June 9<sup>th</sup> meeting was called to order at 7:00 by President Brian N1BQ.

There were 15 members present. There was some discussion on providing communications for the Buffalo Soldier's reunion in August. More information will be collected.

There will also be the Quadicentennial Parade in Burlington on Saturday, July 11<sup>th</sup>. Help is needed.

There was a reminder of the upcoming VHF QSO Party on June 13-14<sup>th</sup> and Field Day is June 27-28<sup>th</sup>. The August meeting is our annual picnic at Kill Kare State Park, which will be Sunday, August 2<sup>nd</sup>.

Once again, Paul, AA1SU will bring snacks for July.

There was a motion by Bob KB1FRW, seconded by Paul AA1SU to allow up to \$500 for Field Day expenses. The motion passed unanimously.

The rest of the meeting was a demonstration of the AB-577 Military Mast, also known as the "Rocket Launcher" by Bob KB1FRW. With the help of a few guys acting as guys (*well, how else should they act? -ed*), the proper methods to safely set up the Rocket Launcher tower was demonstrated. It was shown that with proper layout and following instructions, the tower isn't very difficult to erect.

The tower was lowered, and everyone went back inside to lower the amount of snacks.



Howie K2MME on CW shown on TV

## NON-FIELD DAY, FIELD DAY EVENTS

by Mitch W1SJ

Many of the articles in this month's newsletter take a look at what happened at Field Day. Here, we will look at activities which did not occur between setup and take down, but were directly related to the 24 hours of operating. These stories will not appear on TV, in QST, or up until now in *NEWS & VIEWS*. But they are important, nonetheless, and in most cases even more enjoyable than the 24 hours of Field Day itself.

Planning and preparation for Field Day usually starts in early May – often right around the time of Near-Fest. That is when we start hacking out details on how the stations will be set up and what equipment might be used. Some areas, like the phone station haven't changed in years. Other areas like GOTA change every year. And Near-Fest is the place where required equipment might be purchased. Several of the antennas we use have come from there, including the 15 meter yagi we used this year.

Purchasing that was truly a team effort! Bob and Carl first spotted the thing lying on the ground. I was called in to negotiate the price. After beating the seller to bits and pieces (*i.e. we got it cheap*), we had ourselves an antenna. But what was it? It looked like a Cushcraft monobander, but it had Hy-Gain parts on the boom. Someone dubbed it the "Frankenbeam"! But we had a more pressing problem – how to get it home. The elements seemed like they were glued together and resisted all attempts to take them apart. Bob worked for hours at the fest with a portable dremel tool trying to open up the elements. Eventually it was slapped on the roof rack of the van and moved to Bob's shop that way. There he took apart each element and replaced the hardware so that we had the working antenna we were able to use at Field Day.

And by the way, Bob was quite busy with another project. He purchased an Elecraft K3 and was assembling it just before Field Day. It came to Field Day just to be tried out and ended up being the GOTA radio due to its better receiver.

Meanwhile, I was quite busy. I was able to borrow the 4 element 20 meter monobander we used last year, but it needed repair. This job spanned several days as I laid out all of the elements and boom sections and carefully marked the sections and replaced hardware as needed. I had Bob straighten the bent boom section which caused the front of the antenna to dip noticeably. The gamma match section was repaired and screw holes were drilled in the boom to keep the boom sections from rotating. Finally it was time to push it up into the air vertical and run power through it. The pictures of me trying to wrestle this 32 foot long monster vertical would have been a site to behold. Fortunately no one took pictures of this, but I was able to get the repaired match tuned up and got the antenna working well.

When this job was done, I cleared the driveway and set up the satellite antennas. Each year I set up the satellite station at the house and run through the various satellites making contacts. This is necessary because the birds change

**Non-Field Day... continued Page 5**

### Contacting *RANV*

In Person: Meeting July 14, 7 pm,  
O'Brien Civic Center  
113 Patchen Rd, So. Burlington

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

By Radio: 145.15 repeater

WW Web: <http://www.ranv.org>

President: Brian N1BQ 899-4527  
n1bq@wulfdn.org

VP/Tres: Bob KB1FRW 434-2517  
mcamp@gmavt.net

Secretary: Carl AB1DD 482-3878  
ab1dd@arrl.net

Editor: Mitch W1SJ 879-6589  
w1sj@arrl.net

# MORE FIELD DAY STORIES

by Chuck KB1RQX

This was my first field day and I didn't know what to expect but I knew it was a one of the 'big' events of the year for *RANV*. I wanted to experience as much of it as I could. I arrived at 2:00 Friday for set up and helped as much as someone could who didn't know what to do. Getting the antennas up was a big job and well coordinated considering the fact we had a storm blow through the area during setup. Last, we set up the canvas tents for the GOTA and CW stations. I was glad to be a part of this as most people who see the 30 second blurb on the news only see the operating part.

The next morning I arrived about 11 and aided in last minute preparations of dropping off and starting the generators and posting some signs. I was able to see the testing of the phone station. Mitch was going through station warm-ups like a relief pitcher before being called out on to the field. At the 2:00 start, I looked in on each station to see what and how they were doing. Checking the phone tent I could see Mitch was in a totally focused contesting mode - no doubt he was definitely enjoying the event.

A few hours into the event, the rains again fell, Carl AB1DD was aiding the operators at the GOTA station and Brian N1BQ was pounding out the CQ's over at the VHF station, while Paul AA1SU and Bob KB1FRW were attempting to get the packet traffic station going. A call for aid came across from the phone tent as water was starting to puddle next to the UPS unit. Jeff N1YWB and I answered and were able to remove the water, move the UPS to a chair and cover the phone tent with plastic.

Next I was helping Paul, AA1SU get the "North" 80 meter dipole into the air using a tree a few hundred feet from the station. Paul shot the arrow up over a tree, while I was waiting on the other side to help

pull up the string. I brought the mud boots this day as my feet were soaked from the rains the evening before, and they came in handy for this job.

I operated the VHF station for almost an hour with Brian giving me the low down as to what to do and what to expect. I only had a couple of local contacts but as Brian stated, "You never know when that 50 MHz band will open up on you". I finished up operating the GOTA station and making a few contacts with Gene W1EBR assisting. I learned that operating is more than just talking in a microphone!

The next morning I arrived at 6 since Carl mentioned they did not have an operator for the GOTA station then. I was able to Get On The Air again with Bob KB1FRW as the coach. This was really tricky as the sun was making its way up and the bands were in flux. With 40 meters being used by CW and 20 meters not yet open, 80 meters was shutting down in the daylight and was in and out. I think I only made a few contacts as the contest was starting to get in to the final stretch.

Afterward, I was able to visit the other stations and hear in on how the operators were progressing. I was able to listen on Chris operating the Phone station. There were a few contacts he pulled in where I could barely even recognize a voice over the static. Paul was operating the CW station and was deciphering the code coming through with ease, but not to his liking as he was also experiencing the troubles of the changing atmosphere.

The soda, food, and camaraderie that were experienced were also worth spending some time, "Out here in the fields".

Now, after experiencing the Field Day event I feel more confident to get on the air, and continue to work towards obtaining General class privileges. I'm looking forward to next year's event.

by Carl AB1DD

Each year, Field Day brings new and different challenges. I have been putting the GOTA effort together for a few years now. I can remember the first couple of times I didn't think the effort would ever get off the ground. People wouldn't commit, equipment was scarce, untested and unknown as to working ability. For a little insight to this job, it is a little like being the Doctor, Lawyer, and Indian Chief. The Indian Chief is the organizing part. The Lawyer part is being able to study the rules, finding out how much changed, and putting the rules into action. Fortunately, there have been no injuries, so the Doctor skills have not been tested. However, there has been a few times when it took a heart to heart talk to keep the operator going. This type of "doctoring" is not a strong point for me.

As each year passed, things did get better. More people wanted to get on the air. They managed to make more and better contacts due to better equipment. Then, one year GOTA made 495 contacts. The total that can be counted is 500, so we felt good about this. There was one problem now. How could we do better the next year? Well, a plan was laid out and put into action. The plan came together along with the band conditions. When the weekend was over, we broke 550 QSO's, an all time record. We now had the same problem again. How can we do better next time?

Field Day 2009 was a little sluggish to start off. Operators were a little slow to respond, and then everyone wanted to be on at the same time! I got an Icom IC-718 on loan, and found out the boom headset didn't have the Icom adapter on it. That was ordered, and then I found out the element in the microphone wasn't compatible with Icoms, so it didn't work. Then a high quality Heil microphone was made available. Finally, everything is in place with

**More Field Day... next page...**

## More Field Day Stories... from previous page...

all the pieces, radio, headset, extra headsets for the GOTA mentor and guests to listen on.

I spent the Friday night at the Field Day site, and set up the station in the morning to check out conditions. Uh oh – wall to wall S9+20 noise on 40, 20 and 15 meters! The IC-718 noise reduction was not good enough to operate. Fortunately, a nice new Elecraft K3 showed up. I set it up, and to my amazement and relief, the noise was almost gone! We ended up using the K3 for the entire event. We got a good number of contacts, over 530, so we made the maximum number. We got a lot of the bonus points also. But most importantly, everyone had a great time and did well. That was worth more than any number of points.

I would like to thank everyone who operated, mentored and helped out with the GOTA station. Without all the help, we would not do anywhere as good as we did.

By the way, do Doctors, Lawyers or Indian Chiefs ever sleep?

*by Cliff KI4IW*

I had a really great time at Field Day and really enjoyed working phone on 6 to 8 am Sunday morning. It took me a little time to get up to speed on the computer as I had never used that software before. But once I got the hang of it, I was able to work a pretty good pile up particularly for the last 30 minutes or so as 40 really started to open up. Fortunately, I had plenty of “Elmers” around to help me get going.

I met a bunch of nice fellow hams and was made to feel at home and part of the effort right away. Thank you everyone for letting me be part of the Field Day experience. I even got my YL to come by and see the operation and she thought the whole set up was really cool and very impressive. I couldn't get her to give the GOTA station a try however. Maybe next year!

## Field Day Stories... from first page...

We also spent a lot of time on recruiting setup and take down crews. It comes as no shock to anyone that we are all getting older and individually can't do as much. This paid off dividends as our complicated antenna setup was put quickly into place with a sizeable and well trained crew. We even devoted a club meeting to the proper method to raise and lower AB-577 military towers!

And then Murphy showed up! We were about to raise the last tower when the winds kicked up. The site was buttoned down to ride out what turned out to be a full hour of monsoon rains and high winds. We also got to see just how well those towers were put up. Just in case, we had everyone stay 100' from the nearest tower.



**Mitch W1SJ interviewed by Fox 44  
Reporter Mitch**

The rains kept on coming on Saturday (*and they haven't stopped as of this writing*) and the first hour of Field Day was under pouring rain. The roar of the rain hitting the tent was so loud that I had to crank the volume up just to hear. But the rain didn't dampen the mission – I had 212 contacts in the phone log in the first hour alone – a personal best in a stateside contest.

There was a question of which elected leader will be visiting our site this year. Normally, a State Representative visits. I was all primed to roast whoever showed up since I

was not happy with the new taxes dumped on us by the legislature this year. Fortunately, our political wrangler was one step ahead of me and he instead managed to secure a visit by Lieutenant Governor Brian Dubie. But wait, since the Governor was out of the state, we indeed had the functioning Governor of Vermont visit us (*worth more points maybe?*).

The GOTA station shaped up nicely. Our GOTA wrangler first reported that no one answered the call to operate, and then everyone wanted the same slot Saturday afternoon. We finally had a complete schedule, but were concerned if the new operators could sit down and learn to make enough contacts. They most certainly did! By late Sunday morning we had hit the 500 QSO limit and racked up a ton of GOTA bonuses.

The operation hummed through the night, thanks to our wholly owned subsidy, *RANV* Power and Light, who provided clean and reliable power for the duration of Field Day.

Sunday's highlight was a visit by a news crew from Fox 44. They filmed at all of the stations, and we were even making contacts at the time. As they left, another crew from Channel 3 came in! That night our site was eventually on 3 out of 4 TV networks in Burlington!

When the dust had settled, we found over 4400 QSO's in the logs and are still finding more as I keep looking. The point total dropped a bit from last year, but we are still up there in the big numbers. And we set yet another club record for participation and media coverage. That, and the fact that everyone had all of their arms and legs intact as we left the site signaled that we had one hellavu successful Field Day!

## ***RANV* MEMBER PROFILE:**

### ***BARB KB1LIF***

*by Kathi KB1OQK*

Barb became interested in Ham Radio when her son, Jerry KB1KPO got his ticket in 2003. Jerry met Carl AB1DD on the air who introduced him to *RANV*. Barb came to all the *RANV* meetings with Jerry and soon found she was very intrigued. She earned her Technician class ticket in 2004 and upgraded to General in 2007.

Barb and Jerry volunteered with the Kingdom Weather Net through the St. Albans Radio Club (*STARC*). Barb took over as Net Manager to take weather reports and conditions from those able to call in on the Jay Peak repeater. While collecting the data she would give a Vermont weather fact between check-ins. Her reporters were mostly Vermonters, a few Canadians, New Yorkers, and even someone from Gorham, Maine! She would have to drive up on the Milton-Westford Road to get a good signal to transmit her weather report but had to give that up for safety reasons when road conditions were bad. She continued from home for a while after installing an antenna but couldn't get a consistent signal year round so she passed the Net Manager position to someone else.

Barb uses an Icom IC-208H in her car and she and Jerry share an Icom IC-2720 in the house. She was active on 2-meters for a while but cut back temporarily when caring for her father took most of her time. Now she is getting back into it and exploring the range of her General Class ticket with an Icom IC-718 on HF.

Since joining *RANV*, Barb has worked the Vermont City Marathon and has enjoyed several Field Days. Field Day gave Barb her first opportunity at contesting. Paul AA1SU encouraged Barb to become more involved in contesting from home. In February, Barb participated in the ARRL International DX Contest from her home rig with a simple antenna Jerry set up (see the June newsletter for *BIGGER IS NOT ALWAYS BETTER*). The antenna was simply copper wire hung out her daughter's bedroom window! She was able to make contacts worldwide, including Mitch W1SJ, who was on the air as FS5KA while on vacation in St. Martin! Paul also helped Barb and Jerry set up a delta loop antenna to use with the Icom IC-718.

Barb is looking forward to meeting more hams, learning more about amateur radio, and continuing to be active with *RANV* activities.

## **Non-Field Day Events...**

### **from Page 2**

each year – some go dark or get weak, and in good years – some new ones are launched or some dead ones come back! So I become the avid satellite chaser for 3-4 days, tracking each and every pass and dashing out to the driveway to turn the antenna while trying to make contact inside. Yet another comedy routine which has never been documented and I hope never will. And you know what – I rather enjoy this silliness for a few days. Then the stuff is packed up for Field Day and then put away for the rest of the year!

When that was done, I used the driveway to layout dipoles for 80 and 40 meters which were used on CW and GOTA and spent the better part of a day pruning and tuning them.

Doug AB1T got into the pre-FD act this year. We were going to use his FT1000MP, but he wanted software which allowed automatic CQ interrupt when the operator tapped the key. He settled on the N1MM software. He spent several days marrying the software to the radio so that many radio functions were controlled right in the program. As many of us know, interfacing computer devices is never an easy thing, but he finally got it working right. This setup was tested live on the air after the Monday pre-Field Day meeting at my house.

Carl spent quite a bit of time interfacing radios as well. As documented in his Field Day story elsewhere in this issue, he spent a lot of time getting microphones and headsets to interface with an Icom-IC718, only to have to redo all of this when it was decided to use the Elecraft K3 instead. Fortunately, that was quicker.

Writing the Field Day manual each year is another labor of love, which sometimes is fun (!?). While most of the manual doesn't change, we look long and hard at the setup procedure to find ways to streamline the operation. And then we discuss it and argue about it at meetings until we come up with what appears in print. And we found a whole bunch of new things which need to be added.

Then there are the non-technical jobs which get done. Bob did the first cut on the grass. As many of you know, Carl is the GOTA wrangler and as he primed people to commit to a GOTA schedule, I was often chasing down the same people to commit to setup or take down schedules. Both are thankless jobs, but both were nailed this time as we had enough people to do everything right. Paul is our politician wrangler and his job is to make sure we get elected representatives and members of served agencies so that we can show off amateur radio and claim some bonus points. Paul also deals with collecting and sending traffic. Jeff N1YD set up our educational demonstration as we went back in time with a crystal radio set – which worked! I also have a picture of him with a solar cell which is amusing, since I didn't recall seeing much sun! And Friday night, as we all were cleaning up from setup, Bob W4YFJ got a copy of the official ARRL bulletin, which is another bonus that we had to round up.

I can go into a whole story about the days it took for us to put everything neatly away, but that wasn't as much fun!

Besides the activity of Field Day on Friday-Sunday, there is a plethora of ham radio activity which goes on to support the event. It is not just getting on and making contacts, but all of the activities (*mostly fun ones*) which this events draws us all into!

**NEXT MEETING:  
“Lightning”  
Tuesday, July 14<sup>th</sup>, 7 PM  
O’Brien Civic Center**

***RANV***

P.O. Box 9392

South Burlington, Vt 05407

**<http://www.RANV.org>**