



Radio Amateur News & Views

The Official Journal of the Radio Amateurs of Northern Vermont

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RANV HOLIDAY PARTY

**Join Us December 14th For An
Evening of Fun and Camaraderie**

The RANV Holiday Party will be Tuesday, December 14th at the QTH of W1SJ and W1DEB in Essex. Festivities will get underway at 5:30 and will run until past 9:00. Arrive at any time, but no food guarantees are made if you show up late! If you need directions, contact W1SJ at w1sj@arrl.net.

We have an assortment of food planned, including the usual cold cuts platter, wings, cocktail franks, meatballs, fries, drinks and munchies. We're working on getting the knishes back, if they can be found locally. We'll also have an assortment of other tasty items, depending on what everyone brings. See below for more information on this.

There is no formal meeting and nothing specific is planned. Traditionally, past activities have included the telling of tall tales, playing with computers and DXing WiFi, getting on the air, and viewing videos and pictures. We will run the Field Day videos from Channel 3 and 5 news a couple of times for everyone to see. Everyone is encouraged to bring non-ham guests as well. That way, normal people (*non-hams*) have people to talk to!

It is key that you let Mitch know how many are coming. As soon as you read this, please send him an E-mail and count up the number of attendees who are likely "definite" and the number of attendees who are likely "maybe". This information is needed by December 9th so that the proper amount of food can be ordered. If you would like to bring something, let Mitch know that, too. If it is a food dish, you should come around 5:30. If you plan to arrive later, bring a dessert item.

We look forward to seeing all of you at the Party!

COMING UP!

It will be a busy ham radio week with the 10-Meter Contest and RANV Holiday Party to keep us entertained.

At the beginning of the year, thoughts turn to the Milton Hamfest. Not willing to simply repeat past years, we are looking for new things to do and try at Vermont's Ham Radio Show. What forums, demonstrations and activities do you want to see which haven't been there before? Please let us know.

Amazing as it seems, we already have RANV meetings planned through April. And boy, what stuff we have for you! There will be not one, but TWO meetings on antenna fundamentals and modeling. And we are working on another Construction Night. Which brings to mind, hey, what do we want to construct? We have built an antenna, an attenuator and QRP transceiver. What now? Some suggestions which are being bandied about: WiFi antenna, 2 meter vertical, VHF amplifier and simple microwave equipment. The microwave stuff, if we can adapt a workable design, would be interesting in that it would get a bunch of us on bands like 902 or 1296 MHz, places where none of us tread. So, what would you like to build? Let Brian, Bob or Carl know so we can plan the design.

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OUR LAST RANV MEETING

by Dave W1DEC, Sec'y

Sixteen members of RANV were in attendance when Brian N1BQ called the meeting to order at 7:16.

The annual election of RANV Officers was held. By unanimous vote, the following were elected: President: **Brian N1BQ**, Vice-President and Treasurer: **Bob KB1FRW** and Secretary: **Carl AB1DD**.

Zack K1ZK, volunteered to make a presentation at the January Meeting.

Paul AA1SU, reminded all that the Sweepstakes would be taking place on November 20th. Mention was also made of the 10 Meter contest which will take place on December 10th.

Bob, KB1FRW thanked all who participated in the Veterans Day Parade Public Service event.

The RANV Holiday Party will take place at the QTH of Mitch W1SJ. A food budget of \$150 was moved by Dave W1DEC, seconded by Bob W4YFJ and passed by unanimous vote on the condition that both franks AND knishes would be served!

The Vermont State Convention will occur in conjunction with the Milton Hamfest on February 26th, 2005. Discussion followed regarding workshops, demonstrations, and seminars to include PSK-31, ARRL, Mobile Operations and anything else.

Dave W1DEC mentioned the forthcoming 400th Anniversary of the Discovery of Lake Champlain, and suggested that RANV consider sponsoring a Special Event to commemorate that Historical Event. Sites including Perkins Pier and Shelburne Museum were discussed as potential sites for that event.

It was announced that RANV was the best East Coast 2004 Field day performer in category 2A and also that N1QS had made a credible showing as well.

Thanks to Brian, N1BQ, for an interesting presentation on the use of Microprocessors in the Hamshack! Also congratulations are in order for Grandpa Brian on the birth of his first Grandchild!

THE PREZ SEZ

by Brian N1BQ, President

Another year rolled by and we are soon embarking on a new one. I think that by any criterion, we can say that we had a good year. Attendance at meetings and activities has been excellent. The hamfest was well attended and we are in excellent financial condition. About the only thing that we all might need to work on is spreading the faith. New hams are barely keeping pace with the attrition rate. It's really simple – if every ham worked on attracting one new ham each year this problem would go away quickly. That is not a big task.

By the time you get this, you will have but a week or less to get ready for the annual ARRL 10-meter contest on December 10-12th. Personally, this is one of my favorite contests. Many may be put off by the waning solar cycle, but you never know. In the last three years I have placed very high in QRP Phone Category (*10th in the world in 2003*) with a modest Alinco rig and a vertical antenna occasionally alternated with a wire loop. While it undoubtedly helps, you don't need a multi-

kilo-buck station to have fun and see your scores published. This contest is on a band with lots of elbowroom; the phone portion of 10 meters alone is more than double what we have on any lower HF band. Lots of room for a little guy to stand and call CQ. And there is the North Country secret weapon – everybody wants Vermont, since there just aren't that many of us!

We have a pretty good meeting agenda set up and I think you will all enjoy it. Right now, due to some scheduling difficulties we may have our annual project building session in March instead of April. We are still looking at several great ideas. If anyone has any ideas about what they might like to see, let us know.

See you all at the Holiday party at Mitch's QTH. Please let Mitch know if you are coming, how many people are in your party and what you are bringing if anything.

SEASONS
GREETINGS
FROM RANV

Turn sideways for proper viewing!

Contacting RANV

In Person: Holiday Party Dec 14, 5:30-9
at W1SJ, Essex Jct.

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

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

ARE YOU PROTECTED?

By Mitch WISJ

For several months, I dealt with a nasty little problem on my laptop computer. Every time I got on a dialup line to the Internet, someone would attempt to send a virus or worm into my computer. Because of earlier problems, I have set up all sorts of alarms to monitor this nasty business. I would be happily typing away when, BOOM, Klaxon horns would go off indicating the presence of a virus that was trying to change my Windows registry. I was perplexed as I thought that a slow dialup was relatively safe. I spent many hours on the cable modem or on WiFi connections where no attacks were ever recorded.

The root cause of all of this was that I had inadvertently turned off the Windows Firewall for my various dialup connections when I was troubleshooting a problem.

This made my laptop open to all sorts of attacks. While on the cable modem, I was protected by a router. A router does not let any information through it unless the information is specifically identified as being permitted.

In the process of trying to fix all of this, I installed a version of a program called *Zone Alarm*. This program acts like a software router. It intercepts ALL communication in and out of a computer and unless you specifically allow it, will stop all such communication. In reading the alarm logs, I found that within minutes of starting a dialup session, computers all over the world attempted to connect into my computer through various ports. *Zone Alarm* stopped the attempts. Before I had things locked down properly, these distant computers would look for an open port and when a one was found, programs containing viruses and routines to install them were downloaded into my computer without my knowledge. I won't even imagine what the

purpose of all these viruses were, but the immediate result was that it slowed the computer down to a crawl. God knows what kind of other mischief was wrought. Usually these viruses attempt to send information out of your computer to other systems.

I later learned that this stuff is called "port scanning." Unscrupulous individuals (*seems like most of the people on the Internet*) find your "address" and scan the various ports on your computer, looking for a way in. Everything connected on the Internet has an address, expressed as 4 numbers separated by periods, also known as a "dotted quad". For example, you are all familiar with www.ranv.org. That is the popular address. When you type that in, a request goes out to a place

cific ports have to be open for read or write. While the firewall in Windows XP is pretty good, there are hackers who spend their lives looking for holes. Holes are found on a daily basis and Microsoft has to release new patches to fix the holes. The *Zone Alarm* program is very good as it catches everything going in or out, but it can be annoying as it is always asking permission for various things.

Things have gotten so bad on the Internet that you should not even think of operating a computer without at least one level of protection. Where I didn't bother with virus protection a year ago, I keep it up to date religiously now. You must too. Chances are that if you get a virus, it will use YOUR computer to launch attacks on others and send phony

E-mail containing viruses to your friends with your return address. Again, it doesn't matter if you are on a cable modem, DSL, WiFi or dialup. All of these methods can let bad stuff in or out.

My suggestions: Obtain a router for computer protection. A router will also

allow you to run several computers off of the same connection. If you use a laptop on dialups, get a software firewall program installed. Get a good virus program and keep it updated – at least every 1-2 weeks. And finally be very careful about what attachments you open up. Even if it comes from a friend, you don't know if his or her computer has been hijacked. Quarantine the file first in a separate folder and ask about it first before opening it.

When all is said and done, Ham radio communication is much easier. After 100,000 QSO's from all over the world, my TS-830 never got a virus. The moral is that we should probably spend more time on the radio and less on the computer!

“I would be happily typing away when, BOOM!!, Klaxon horns would go off indicating the presence of a virus that was trying to change my Windows registry.”

called a *domain name server* (DNS) which looks up the actual address: 209.198.127.150. Web sites usually use the common port 80, but each address, in turn has many ports, up to 65,536, which can be used. The ports can be set up to read only or read and write and modify. Port scanners look for the latter type, in which they can do their little dirty work.

One of the features of Windows XP is that there is advanced Firewall protection. That means that the various ways into the computer are closed. Indeed, many of the quick unsuccessful connects we hear all day on Echolink are folks who have an XP system with all the ports closed. Echolink will not work in this state. To make it work, very spe-

FIELD DAY RESULTS

by Mitch WISJ

The 2004 Field Day results are in and we turned out another tremendous job. When the dust had settled, we ended up in 3rd place overall in the large 2A category – out of 455 entries. First place was claimed by the Batesville, Arkansas group with nearly 14K points. On their website, they had this to say, “Wow! How about that VHF opening for Field Day! The W5ZN/NG5M crew racked-up over 500 QSOs on 6m, 2m, and 70 cm! Canada, New England, Caribbean and South America were all worked on 6 meters.” Yow! Those were openings which we never heard! Talk about an uneven playing field! A group out of Illinois, W9CA edged by us for the second time in 2 years and claimed second place with 12.6K points. There appeared to be an unusually high number of 9-land entries at the top this year. We were the only Northeast station in the 2A top ten. Across New England, we were only 2nd to the N1FD group out of New Hampshire – and they required 21 transmitters to earn 1600 more points than we did. And we still made more contacts!

Here is a listing of the Field Day groups in Vermont and nearby. It is virtually impossible to compare scores across categories. A more meaningful number is how a group did in their particular category by computing the percentile. Third place out of 455 entries in 2A puts us in the 99th percentile. Here is how the other Field groups in Vermont and nearby areas fared:

CLUB	CALL	CAT	QSO	PT	#	TOT	PCT
RANV	W1NVT	2A	3780	11360	3	455	.99
Udder Club	W1MOO	1A	1222	4522	17	165	.90
SOVARC	K1SV	3A	1554	4580	53	308	.83
GMWS	N1VT	2A	1423	4976	81	455	.82
Twin State	W1FN	4A	1334	4094	29	129	.78
NVQRP	N1QS	2AB	346	2520	13	21	.43
BARC	W1KOO	1F	152	604	20	31	.39
TESARO	W1IM	2A	234	960	395	455	.13
Halifax Emerg	N2JFS	2AB	40	600	21	21	.05

ECHOLINK USAGE

by Mitch WISJ

Recently, several local operators have been using Echolink to access the repeater in lieu of using a radio. Access from the computer side of Echolink is restricted to stations outside of the normal coverage area of the repeater (*most of Northern Vermont*). The purpose of having Internet linking is to provide long distance communications to stations outside our area. It is not to be used for convenience monitoring. If you are in an area in which you cannot hear the repeater with an HT, then put up an antenna, run higher power and do all the things all of us hams have to do to make contact.

10 METER CONTEST

by Mitch WISJ

The ARRL Ten Meter Contest will be the weekend of December 10-12th. Conditions continue to fall, but amazingly, there is still life on 10 meters.

The contest starts at 7 PM Friday night. Normally, not much is worked at this time, as propagation is already past. But you never know when an opening might occur. You should focus on daytime hours. Make sure you start in the morning. That’s when you will hear the Europeans, if the band opens that way at all. As the sun gets higher, the U.S. stations get stronger. Europe fades in the afternoon, but there are lots of U.S. and Latin American stations around. Towards sunset, if you are lucky, you may bag a few Pacific stations. Be sure to look for stations both days of the contest. It may be dead on the day you try but wide open the other day.

What happens if the band is dead? First make sure your antenna is OK! If it is, keep checking the band every half hour. Ten meters can be a strange band – dead one minute and wide open the next. Have patience throughout the weekend – you will work someone!

Let’s see if we can get a whole bunch on from RANV this weekend! Let’s all convene at 7PM Friday night. If everyone gets on, at least there will be someone to work!

ON-LINE CLASS DEBUTS

by Mitch WISJ

A new Technician ham radio class is being offered. Based on the successful weekend class format, this new class is an on-line course. It is designed to meet the needs of students who are not near available weekend courses, or whose schedules won’t allow attendance on weekends. One of the problems with most on-line courses is that they are nothing more than class notes and homework on the web with some discussion with the instructor thrown in. There is little actual instruction or explanation. This new on-line course is different in that a mini-lecture and notes pop up on each course page. You see an outline, appropriate diagrams and tables while yours truly explains the details you need to know. To take the course, you will need a multimedia computer with sound and broadband connection. The course is set up so that when you enroll, you have 3 weeks to complete all the lessons. This is more than adequate time!

Of course, most readers of this newsletter already have their amateur license. However, I’m sure that everyone knows someone interested in ham radio that cannot make it to a class. This is a perfect opportunity to get them licensed (*hey, what a great holiday gift...*)

Soon, there will also be a General and Extra Class version of the course. You can check out some sample lessons at the on-line site, www.hamclass.net.

SS 2004 – BATTLE TO THE FINISH

by Mitch WISJ

Last year's SS Saga was entitled the "Shootout" as it had all the ambiance of a Gunfight at the OK Corral with 4 Vermont stations shooting away for the better part of 24 hours. This year's festivities more resembled a battle to the death. No one held any large advantage as the lead was exchanged several times. There were familiar faces and some missing as well. I fired up as WB1GQR and Ron KK1L, for the 6th straight year was right on my heels. Doc W1US put together a multiop at his super station down in Andover and blew everyone away in the first 4 hours. Grant K1KD was unfortunately called away on a family emergency and had to miss the action.

I prepared carefully this year. I knew only too well that 86 years of history went down the tubes in the baseball playoffs and my 28 years of SS history seemed small by comparison. Those who are not serious contest operators cannot appreciate the planning and preparation which goes into antenna and station tweaking, propagation research and getting oneself psyched up for the event. For us, this is the Super Bowl – minus the halftime debauchery.

After a couple of hours Ron and I were battling neck and neck on 20 meters – the usual scenario. Suddenly, I heard a loud "THUNK". The station I was talking to could no longer copy. I then realized that the amplifier went down, and with conditions deteriorating, it was very much needed. I changed the fuse, crossed my fingers, and again, "THUNK". The thunk, by the way, is the sound the power transformer makes when it is shorted out in the half a second it takes the fuse to blow. This was an old problem. Another high voltage capacitor had shorted out. Electrolytic capacitors get old and do things like that. I had a warning like this 2 years ago, but the amplifier had been fine ever since. Stupid, stupid! Good engineering dictates that you replace the old caps. I chose to look the other way and now it was time to pay up.

The only thing left to do was to pull the backup amplifier off of the second station. This required me to hop over the table and stretch in some ways a contortionist wouldn't consider. Finally, I had the small amplifier in line and was running 500 watts. This was down somewhat from my normal 850, but certainly better than 100 watts!

However, that wasn't the end of the problems. I couldn't work anyone. I appeared that 20 meters had become unfriendly to my cause. Several frequency changes didn't produce, so I jumped down to 80 meters after a disastrous hour with rates approaching negative numbers.

Although the backup amp runs only 350 watts on 80 meters, I hit the right spot and peeled off 2 ½ hours of rates over 120, which put me right back in the race. Sadly, these good times didn't last. Conditions on 80 meters got squirrely and the rate dropped really low again. The QRM was brutal, as usual. It was going to be a loooong night.

With the slow rates, I was getting bored, so I decided to do something useful and fix the high voltage power supply in the main amplifier while operating! *Warning: Do not try this at home unless you are a trained professional and certifiably crazy.* Fortunately, I had a spare capacitor, so I found and ripped out the blown cap and soldered in the new one. In between CQ's, I held my breath and powered up the repaired amplifier. Oh goody, no Kaboom! I had the main amp back in line by 1AM.

By 4, when most Northeast stations shut down, I was about 50 QSO's behind the pack. No problem, as I have pulled off Sunday comebacks before. But this year, it wasn't to be. Four absolutely awful hours in the morning convinced me of that. The usual morning standby, 40 meters, was worked out and 20 meters produced nothing. There was nowhere to go to produce any good rates. Finally, later that morning 15 meters opened up and produced some good rates. At 1 PM, K0JGH

(Grant's dad in Iowa) worked me and mentioned that Ron was about 20 QSO's behind. Some quick math proved the grim news. Ron had 2 ½ more hours to operate than I did and a 20 QSO margin just wasn't going to get it done. At this point I planned to retire and start on the concession speech. However, as I do every year, I decided to just hang in there and hand out contacts. The change in attitude to "there is nothing to lose" really helped.

I finished up around 8:30 that evening and found that I managed to forge ahead of the pack by around 75 QSO's. I had an awful afternoon and I can't imagine the rough time everyone else had. The question was if Ron could overcome the deficit in 90 minutes. At the rate he was going, it was going to be close. When the dust had cleared, he finished a mere 15 QSO's ahead. With the severe checking all SS logs are subjected to, most contest logs lose 40-100 QSO's, so we won't know how this will turn out until next May. However it ends up, it was not a stellar year. Who knows why? That's the way the signal bounces!

There are some lessons learned and relearned for us to review. If something is marginal, fix it before the contest. The amplifier business was a known problem and I kept my fingers crossed for too long. Second, have backup for everything. Having a backup amplifier kept the situation to a mere nuisance instead of a disaster. Third, stick to your game plan, even if the damn ionosphere and other stations won't cooperate.

I noticed a low number of RANV members who took the opportunity to learn operating skills in the SS. I worked AA1SU, K1LJL and KE1LP in addition to a few others around the state. With all that has been mentioned about the advantages of operating the SS, it was disappointing that new people didn't take on the challenge of HF operating.

**NEXT OUTRAGEOUS EVENT:
“RANV Holiday Party”
Tuesday, December 14th, 5:30 PM
W1SJ QTH**

RANV

P.O. Box 9392

South Burlington, Vt 05407

<http://www.RANV.org>