



Radio Amateur News & Views

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THOSE OTHER BIRDS IN THE SKY The January 12th RANV Meeting

Tired of the same old thing on the amateur satellites? Take a walk on the far side as we explore some of the other satellites up there with Bob W1ICW. He will describe some of the commercial and military geostationary satellites, what it takes to hear them, and some of what you can expect to hear. Equipment ranges from homebuilt yagis and hacked preamps to multi-kilobuck EXCIA and NSA radios and everything in between. This is definitely not your usual satellite presentation! Bob has been active on the amateur satellites since 1989, and has one of the most unusual collection of receivers from 10 kHz to 2 GHz you've ever seen.

Things will get underway 6 PM on Tuesday, January 12th with slopping and feeding of the hams and hogs at Zacks. Then it is on to the O'Brien Civic Center at 113 Patchen Road for the meeting which will start at 7. We will see you all there!

WINTER BREAKFAST MEETING

It is a new year and it's time to have Breakfast! In what has become the annual rite of passage for January, a whole bunch of hamsters will sit down to breakfast and talk. Someone out of state once asked, "why do you do that?" The answer is simple: those are the things we all best know how to do!

The 2010 Breakfast will be Saturday, January 30th 9 AM until noon at JP's Deli in Essex Junction. JP's is on River Road, Route 117, 1.4 miles east of the Five Corners. It is a little past the IBM entrance at the traffic light, on the left side heading out of town. The venue change was necessary because the Lincoln Inn is no longer open for breakfast.

Eating will take place 9-10, followed by our discussion session at 10-noon. This year's discussion is, "What new things will you be trying in amateur radio this year, and how will you promote it to others? Other discussion and announcements and proclamations will also likely take place.

Don't miss out! Make sure you put Saturday, January 30th on your calendar for the Breakfast!

HAM-CON

HAM-CON is only 7 weeks away! The program is being pieced together as you read this! Nothing is etched in stone yet, but the following items are likely. We welcome back Ed Hare W1RFI from the ARRL Lab who will give a talk on Interference and on "Which Antenna is Best?" Using a laptop and antenna modeling software, Ed will do one on one comparisons to see if the dipole at 50 feet beats the vertical with 100 radials. And on the topic of antennas, we reprise one of our most popular club meetings as we will hold a "Construction Session" to build a tape measure yagi. We will be holding a "Closing Ceremonies" where we will make announcements and give away those valuable door prizes all in one comfortable spot! Details are changing day by day, so consult the web site for up to the minute information.

Advance sale tickets are now available. The best way is to buy them on line at www.ranv.org. You can also pick up tickets at the January and February RANV meetings. And Carl, AB1DD can mail you tickets if you send payment and an SASE to his callbook address BEFORE February 13th.

And don't forget to spread the word about HAM-CON!

OUR LAST RANV MEETING

by Jeff N1YD, Sec'y

Our last meeting was the RANV Holiday Party. On Tuesday, December 8th, the club gathered at the home of Mitch W1SJ for an evening of good food, fun conversation, and otherwise assorted technological entertainment. There were 23 people attending, many of them bringing food. The food was delicious and included things like chili, taco salad, deviled eggs, pigs in blankets, egg rolls, popcorn chicken, meatballs and assorted cold cuts. The dessert offerings were equally large and delicious. While chatting and eating, I was delighted to learn that Bob W4YFJ used to be a UNIVAC programmer!

Over in the radio room (*every home should have one of these*), Mitch effortlessly worked the Czech Republic on 75 Meters, and gave us tips on how to be heard in a pileup. On the extreme QRP side of things, I brought out my customized crystal radio kit, and connected it to the ladder line of Mitch's 80 Meter dipole antenna. It gave better reception than it ever got at home, and made a pretty good demonstration.

Later on, over in the computer room, a group of folks gathered around to watch videos off of YouTube documenting the escapades of various RANV members.

Much thanks to Mitch and Debbie for hosting the event.

THE PREZ SEZ

by Bob KB1FRW

If you are reading this, you made it through another happy holiday season, hopefully mostly unscathed and in good spirits. The club has been working on the Hamfest and new newsletter editor.

We are also using this opportunity to check with the membership on the effectiveness of the newsletter delivery system. Should we stay with a mailed newsletter, go to a web based delivery, Emailed delivery or a mixture of methods? Your input in this matter will insure a delivery method that you find acceptable.

The holidays, especially the weekend after Christmas really seemed to put hams on the air and they were in a chatting mood, I managed to have several nice QSOs with mostly Europeans over the three-day holiday break. There was quite a few cordial exchanges of holiday greetings and the like; very nice.

Did I mention HAM-CON? This is the largest and most successful event in the North Country as 400+ hams will descend upon the Hampton Inn in at 8:00 on February 27th and proceed to sell surplus gear, have eyeball QSOs, buy stuff and attend the many informative forums that are there. This is a strategically timed event luring the cabin feverish masses out of their shacks near the end of a long winter. To pull off this event, volunteers are needed to staff the doors, attend to the RANV table, assist with setup activities and help with tear down and assisting the vendors with packing and loading activities. Please help as much as you can here because ultimately, this helps keep the club financially strong and allows us to purchase equipment for various activities.

This is a good time to mention an idea that was brought up recently by Alden K1HA to purchase an antenna analyzer for members use on their projects and hopefully mitigate the cost of buying one of these for \$300-1000 and then have it sit on the shelf for 2 years before you use it again. This way, members could benefit from the work that goes into the Hamfest and not have to support an expensive, seldom used but useful piece of equipment. We currently own a West Moun-

tain Radio CBA battery analyzer that Brian WB2JIX is currently using and I know that the few people that have used it. So let us know what you all think about this purchase and possibly other equipment that can be shared. Discussion about this and any other issue is encouraged on the the Yahoo group, so speak up.

Speaking about the Yahoo group, if a subject comes up, especially things that would be helpful for the officers have a consensus from the membership, feel free to chime in to give your opinion, even if it is just to say you agree with the last four posters. You might see this as unnecessary use of bandwidth but considering that there were eleven replies to my posting about the changes to the newsletter on Nov. 20th I am concerned that 10 percent of the members might not represent the will of the body of the members. If you are not a member of the group (*required to post*) I highly recommend joining. Go to www.ranv.org and follow the directions to join the reflector.

Remember, this is your club and hobby; it is what you make of it!

Contacting RANV

In Person: Meeting January 12, 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 Bob KB1FRW 434-2517
mcamp@gmavt.net
VP/Treas: Carl AB1DD 482-3878
ab1dd@arrl.net
Secretary: Jeff N1YD 879-1789
jbonn@us.ibm.com
Editor: Mitch W1SJ 879-6589
w1sj@arrl.net

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

A TALE OF TWO BANDS

by Mitch WISJ

As I do each winter, I operate in the 160 Meter and 10 Meter contests on back to back weekends. These two high frequency bands are as diametrically opposed as two bands can be. Typically, when one has a good year, the other has a poor year. Right now, as sunspots continue to be very low, 10 Meters is poor and 160 Meters reigns supreme. Following are some of my observations on conditions this year. Understanding the nuances of propagation is key to being a good operator.

Let's start with 10 Meters as this is a band more hams are familiar with. Back in 1998-2002, many contacts were made with low power and minimal antennas. Big stations made thousands of contacts over the weekend. Over the last few years, contacts have been few and far between. Things didn't get much better this year. Outside of a sporadic-E opening during the last hour on Sunday, a brief opening into South America and very quick openings to the Carolinas and Dakotas on Saturday, contacts were sparse. A comment heard was, "I didn't think it could get any worse than last year and I was wrong." Activity consisted of listening to a dead band all day long (*while doing other things around the house*) and throwing out CQ's every so often. It really wasn't a lot of fun. This is especially considering that hams to the south and west had much better conditions and were actually working people while I was listening to noise.

Contrast this with the 160 Meter contest the week before. I made almost 1300 contacts on CW which included 48 states and 34 DXCC countries. All this was done on a plain old dipole, which electrically, on 160 meters, might as well be lying on the ground. It wasn't that many years ago that I struggled to attain half these numbers! Why is 160 Meters so good now? With the decreased number of sunspots, absorption is at an 11 year low. That, coupled with good geomagnetic conditions (*low noise*) resulted in a feeding frenzy of QSO's. And when I can make 100 CW QSO's in an hour, that is special! And the CQ Worldwide 160 Meter Contest in January promises even better conditions since more DX stations get on for that one.

I bring up this discussion because I consistently hear how "bad" the propagation has been for the last few years. This is offered as the cardinal excuse for why hams don't get on the air. Propagation isn't BAD; it is different. While 10 and 15 Meters have mostly dried up for northern latitudes, 160 Meters and 80 Meters have been hopping. Making a lot of contacts right now requires a paradigm shift in operating decisions. Where a 9 foot whip will provide lots of daytime DX on 10 Meters at its peak, 160 Meters requires night operation on a dipole of 250 feet of wire; the higher, the better. Shorter wires will work, but radiation efficiency is reduced. I work many, many folks on 160 Meters using makeshift wires of various lengths. It is enough to get them into my log, but better antennas are needed for a sustained number of contacts.

The ARRL 160 Meter Contest is a CW-only contest. That lets out a lot of hams who have little to no CW skills. That is too bad. Because while there are 160 SSB contests, CW allows you to pull in the very weak distant stations which would not be heard on phone. A good CW operator paired with a good CW receiver (*which I do not have*) can pull very weak stations out of very noisy and crowded bands. It is almost magical. And it speaks volumes that a superior ham operator will know CW well enough to pull the weak ones out of the noise.

The good news is that in this 160 Meter contest I counted 16 Vermont stations on the air. Most were just handing out contacts, but several were competitive. Typically, I hear 3 or 4 Vermont stations and that's that. It is good to see more stations making the transition down to 160 Meter CW!

So when propagation becomes challenging (*i.e. it stinks on the higher bands*), instead of wasting time complaining, spend your time designing and erecting antenna system which will give you a good signal on 160 and 80 meters. You will have a lot more fun on amateur radio!

MENTORING BROCHURE

by Jim KEIAZ

At a Steering Wheel meeting a couple of months ago, we were talking about the fact that a number of candidates who pass the license test never take the next step of getting on the air.

People at the meeting had a number of ideas of how to help alleviate this problem, but one seemed relatively easy. We could write up a handout to give to candidates when they took the test that tries to ease some of them through the next step: getting equipment, maybe an antenna, and making that first contact.

I wrote up some drafts, with a lot of great help from Carl AB1DD and Bob KB1FRW. The handout is a brochure, which a person could easily print off or copy. It is short, the tone is positive and encouraging.

The idea is just to let candidate hams know that we are people who are very interested in being there. I tried to make the point that we have a reason to want new hams — they are people with who we can make new contacts — so we are motivated to welcome reasonable requests for help. The brochure is brief because we couldn't speak to every problem that a person could run into, but it contains offers of help from RANV, in particular via a contact address.

Robin N1WWW graciously offered to help out staffing that Email address to which people could send requests for information or mentoring (*of course, we also mention that coming to a meeting would be a great idea*). If a person writes in about an issue then she will forward that request to a club member who is knowledgeable about the topic.

The current version of the brochure is on the web at http://joshua.smcvt.edu/ham_mentoring.html. I work in free software where there is a lot of interest in source code and licenses, so I put up this page for that information. Please have a look.

If you know anyone who could use it, feel free to print out a copy and give it away. If the brochure helps some people, that'd be great. I'd be grateful for comments or ideas for improvements.

DON'T BUY YAESU!

What's the bitch, Mitch: Installment 1

Some of you may have been unfortunate enough to be exposed to my on-air P&M sessions about all of my broken Yaesu equipment. I thought I would document details of this sordid tale so that you don't get the to make the same mistakes.

I've had some older Yaesu equipment over the years and while there were some issues, there was nothing really noteworthy. In 1998, I bought a new FT-8500 duo band mobile. The selling point for the 8500 is that it is controlled entirely from the microphone, a very useful feature for someone like me who is constantly changing frequencies while driving. A couple of years later, I picked up a new VX5R hand held.

My belief is that if you take care of electronic equipment, it should last a long time. Electronic parts hardly wear out. The issues are with mechanical parts, such as switches, buttons and connectors. Early on, the rubber keypad on the 8500 broke down and eventually stopped working. And then, the keypad on the VX5R also had to be replaced.

One day, I went to use the radio and I couldn't hear the repeater. I was all set to plan a trip to the mountain when I realized that I couldn't hear ANY repeater. The front end transistor was blown. The good news is that this is a \$1 part. The bad news is that the RF board has to be removed from the radio and unsoldered at several points to get to the transistor on the back side of the board. I cannot SEE the surface mount transistor. Luckily, Mike N1FBZ can see it and has a steady hand, so I've spend many an evening at Dan's working on this radio. That transistor has been replaced at least 3 times over the years.

Some time later, I wasn't able to bring up the repeater. The radio showed full power output. Again, I planned a trip to the mountain. And again I realized that I couldn't access ANY repeaters and the power output was Zero! A copper land on

the circuit board burnt up and the black charring was quite evident. This and other poorly designed radios measure power output before the transmit-receive switching circuit. So now, the radio puts out full power into an open circuit. Again, we pulled the board out and fixed this problem, only to have the front end transistor blow again. And then the land burnt up again too!

Another nasty problem was that the radio would go into stupid mode. Stupid mode meant that the radio could not be controlled by the microphone. The only thing which could be done was to turn it on and off and access the 10 memories in the first bank. Wonderful.

Why didn't I send it back to Yaesu to fix it? Good question. Yaesu would not support this radio anymore, even though it was only 9 years old. Some (*not all*) of the parts were unavailable and when that happens, they cut you loose.

About the same time, the VX5R was acting up more and more. Among a lot of minor nagging problems (*like the display going out*), there was the more serious problem of the transmitter going out. Since Yaesu still supported that radio I sent it back for repair. Weeks later, they coolly informed me that they found white powder inside and therefore would not be willing to fix it. White powder? "*Yup, some must have blown in during the last coke party I had - hey just fix the damn thing will ya?*" They wouldn't and I had a hell of a fight with them since they wanted to charge me for the experience.

In talking to the service department, I found that only three technicians worked there (*one on HT's one on mobiles and one on HF*) and no one had been there longer than 3 years. I asked questions about some of my radio problems but these folks had no knowledge of the equipment.

I bought a VX7R to replace the VX5R, but it is a real pain to use. It is

a lot more difficult to change CTCSS tones and other presets.

Some have implied that I have just been unlucky. However, I have heard many horror stories about their small HF radio, the FT-100 (*I believe Bob KB1FRW has an unworking specimen*) and other horror stories about their newer FT-7800 duo banders. I don't think this has anything to do with luck. And I have many other radios with a lot less problems.

I wrote a letter to their Vice President of U.S. sales detailing all of the problems I have had with these radios. I didn't outline a course of action that they would have to take, except to say that I have had a lot more problems with Yaesu equipment than with other comparable equipment and as a ham instructor I wanted to be in a position to recommend everyone's products. The person I wrote to was hardly a stranger as we have worked many times in contests and at the very least I wasn't just some guy who didn't know what he was talking about.

The response was along the lines of, "*so sorry, too bad and I'll pass your letter along to higher management.*" I was really annoyed by this totally noncommittal attitude. And I'm probably sure that the folks in "higher management" likely do not speak English! This is really too bad because 10 years ago, Yaesu TOOK CARE of their customers. Now they DON'T CARE about their customers, and that letter I received is a glaring example.

Just to prove how dumb I am, I found a guy selling 3 of these FT-8500's for a very good price. Hey, I really do like the radio - when it works. After about a year or so, the one in the car stopped transmitting. The backup radio in the house loses transmit audio. And the backup backup radio is now totally dead. Nothing changes. Don't buy Yaesu. You have been warned. And I hope I don't meet up with a Yaesu hit man!

**NEXT MEETING:
“Military Satellites”
Tuesday, January 12th, 7 PM
O’Brien Civic Center**

RANV

P.O. Box 9392

South Burlington, Vt 05407

<http://www.RANV.org>