



# RADIO AMATEUR NEWS & VIEWS

The Official Journal of the Radio Amateurs of Northern Vermont

APRIL 2009

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## DIGITAL RADIO: PSK-31 The April 14<sup>th</sup> RANV Meeting

The April meeting will continue the topic of digital radio. In past meetings, we have talked about controlling your radio and in our February meeting, we even had a chance to build an interface for a sound card based system to operate on the digital modes. This month, we will show how to put all of this together and get on the air with PSK-31. The emphasis will be on setting up and using PSK-31 software to make contacts. If conditions are good, we may even try to make a contact!

Festivities will start, as they always do, with snax at Zach's on Williston Road at 6. The meeting will start at 7 PM, Tuesday, April 14<sup>th</sup> at the O'Brien Civic Center, 113 Patchen Road, South Burlington. Hope to see you there!

## MS WALK APRIL 25<sup>TH</sup>

The 2009 Multiple Sclerosis Walk is scheduled for Saturday, April 25<sup>th</sup>. This is an early chance to brush up on your communication skills and do a good deed. The MS Walk needs a few volunteer communicators to man the rest stops and travel with the walkers. Volunteers need to be on post by 7:30 AM for the 9:00 AM start. The latest jobs will finish up by 1:00. The Net Control station will be at Burlington High School, with most of the route traveling down North Avenue.

If you can spare some time for a good cause, contact Bob KB1FRW at 434-2517 or [mcamp@gmavt.net](mailto:mcamp@gmavt.net).

## Contacting RANV

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

## NEARFEST

Nearfest will be held May 1<sup>st</sup> and 2<sup>nd</sup> (Friday and Saturday) at the Deerfield Fairgrounds in New Hampshire. The show opens at 9 AM Friday and runs until 3 PM Saturday afternoon. Admission \$10 Friday, \$5 on Saturday, and \$10 to bring a vehicle into the flea market area. Carl will have Near-Fest tickets available at the April meeting

Thursday night camping will be provided outside of the Flea Market area. There will be forums offered on several topics and VE Exams will be on Saturday.

To get to Deerfield, head down I-89 to its end at I-93. Go south. After paying the \$1 toll, bear right and stay on I-93. Pay attention, otherwise you will end up on I-293 which is the wrong way! Go a few more miles on I-93 and get off at Exit 7, *Route 101 East – Seacoast, Portsmouth*. Go 6.3 miles on Route 101 and get off at Exit 3, *Route 43 – Candia Deerfield*. Turn at the top of the ramp. Follow Route 43 for 6.6 miles. Notice a very sharp right turn and then a very sharp left turn. The Fairground is 0.7 miles past the second turn on the right. Follow the antennas! Mileage from Burlington: 176. Coordinates are: 43 05 51 x 71 14 51

Official hamfest talk-in is 146.70 (88.5). Rocking 146.67 Repeat will be on the grounds. In addition several low power FM and AM stations will broadcast all sorts of fester information. Detailed information at: [www.near-fest.com](http://www.near-fest.com).

## OUR LAST *RANV* MEETING

by Carl ABIDD, Sec'y

The March meeting was called to order at 7:06. There were 17 members and guests in attendance.

The meeting started off with a discussion on the results of HAM-CON. The comments were positive, with everyone agreeing that it was a success. The few problems with parking and space will be addressed for the next time.

There was some talk about the events coming up in the next few months. These included the March of Dimes Walk, Girls on the Run, Essex Memorial Parade, Vermont City Marathon and the next hamfest, known as Near-Fest, May 1-2<sup>nd</sup> in Deerfield, New Hampshire. Check elsewhere for all the details of these events.

March is movie night, so we next had a showing of the Scarborough Reef DXpedition 2007. The video explained both the political and physical difficulties the team had to overcome to make the trip. The reef is no more than a few rocks just barely sticking out of the water at high tide. Platforms were needed to be built on the rocks to create a level place to operate from and to house the generators and antennas. Operators were totally exposed to climate (*fortunately nice*) and local boat visitors whose intentions were unknown.

Following the video, the meeting was adjourned, with some socializing before everyone went on their way home.

## HAM-CON COMMENTS

by Dave WIDEC

Following forty years of living in the Mad River Valley and working in Burlington, Anny and I retired to my former hometown, Jamestown on Conanicut Island in Narragansett Bay in Rhode Island. That was a little over two years ago. We are fortunate enough to be close to the water with a view East toward Newport and most importantly close to that great salt water ground plane. I continue to maintain my *RANV* membership so as to stay in touch with all of my Vermont ham friends. As our children and grandchildren are in Vermont we return to visit about once a month.

February's visit took place on the last weekend of the month so that I could attend HAM-CON. I was thrilled! What a great show you all orchestrated. I arrived at 7:45 AM with my (*less than 100 lbs*) box of ten goodies which Robin N1WWW very efficiently took under her wing at the *RANV* Flea Market Table. I had e-mailed her an inventory a few days prior to HAM-CON so that if she had any questions she had time to get answers before the pace got frantic on that busy Saturday morning. I think that helped her and I gave her a duplicate inventory in the box with the goodies that Saturday morning. I am happy to report that she was able to sell almost everything for me. I was so happy that I want to mention that I would be happy to pay a \$10-15 charge for that service at a future HAM-CON although I would not be willing to pay a commission. I also urge all fellow hams to list prices that are affordable and reasonable; your goodies will sell to sell if you don't set high prices. If 10-15 members are sellers, then at \$10-\$15 each, that translates to another \$100- \$150 dollars into *RANV*'s treasury.

I spoke with and saw lots of friends and heard some critique as well. One thing that was clear is that more space was in need for those who brought things to set up on a table to sell. I

know of three people who did not even bring things in from their cars due to the tight space. So I think that it would behoove you in the future to arrange for more tables if you can, and a larger *RANV* Flea Market Table. Charging Vendors \$5 a table wouldn't scare anyone away I don't think and that would again add to the treasury. It seems that pre-registration by vendors and hams would help the organizers and while I wouldn't make it a requirement, you needn't have to say that either. I attended two forums as I wanted time to browse and to visit.

Congratulations to Bob KB1FRW and the antenna crew. The station was great and the tower was very impressive out there. It would be nice if the attendants could keep the Coffee Urns full and if there could be some breakfast munchies available. I know that these may sound like picayune details, but I just wanted to mention them as from an attendee's perspective, they would help make a better event next year. Food for thought: offer a "Family Discount" entry fee for more than two adults who have children in tow. Kids like to buy things. They whine, cry and beg their parents to buy things (*from trinkets to food*). So, try to get the kids there.

And finally, Promote like the dickens, in the schools and newspapers. WDEV has a free community calendar and I think that a few Burlington radio stations have similar advertising opportunities. A few years ago I spoke with of Ken Squire of WDEV in Waterbury regarding setting up at a Hamfest: he needed advance time to arrange to come and broadcast on a Saturday morning from a Hamfest but he really liked the idea of doing so, for free! That is a prescription for advance free advertising.

You all deserve a tremendous "Thank You" for doing such a great job. HAM-CON was a lot of fun and comfortable. Keep up the good work I am looking forward to attending all future HAM-CONS!

## THE SPACE REPEATER

by Carl ABIDD

One of the things I like to do is try things that folks say is hard, or not possible. This time, I wanted to work the International Space Station (ISS) repeater mobile, without any special equipment. I have already worked the ISS directly, so I thought the repeater would be easy. Well, not so. First off, you need to know when the passes are, and if they are high enough above the horizon. One way to do that is follow various web sites, like ISSfanclub.com or Heavens-above.com. That is all well and good if you look ahead and write down all the pass times. Since I keep forgetting to do that, another way was needed. I decided to put the downlink frequency 145.800 MHz in my radios. That worked good, every time that ISS passed and was in the cross band mode, I heard them. Now I needed to put the uplink frequency, 437.800 MHz on the other side of my dual bander. The next step was to wait. And wait. It turned out that ISS wasn't in cross band mode for a few weeks.

Eventually what goes around comes around, and I started to hear them. I was getting very good signal strength, and moderate repeater traffic. So, I hit the PTT, and low and behold, heard my return on the 2 meter side. I made it, but did anyone hear me? Oh boy, did someone hear me. Many someones, to be exact. What happened next was kind of a blur, but I did make a contact with someone. We exchanged calls and grid squares, but in the excitement of the minute I promptly forgot his call. Oh well, at least I made one. Over the next few weeks, I have made lots more, and one Saturday, I had a "pile up" of stations from Ohio to Labrador, Canada. I have kept a log sort of. I sat that because when mobile the window is very short, only a minute or two when the ISS is closer to the end of its window. Why? Think about the radiation pattern of a vertical on top of your car. Also, not compensating for Doppler shift shortens up the window.

Why don't you give it a try? You will need a radio capable of receiving the downlink while transmitting. A 2 meter handheld could be used to receive with. Of course, getting a hand held dual band antenna would make it a lot easier, but going with what you have is more of a challenge. I just use an Icom 2720 with a mag mount on the van, or the same radio with a home made J-pole at home.

You need to be fast. As soon as you can hear yourself on the downlink, answer someone or give your call. Be ready to give your grid square and move on.

And as I am writing this, the ISS made a pass, and I just worked a station in Connecticut!

## RANV MEMBER PROFILE:

**KATHI KB1OQK**

by Kathi KB1OQK

I am a new member of **RANV**. I joined last November and have been to several meetings and my first HAM-CON this past February. I must admit I feel a bit overwhelmed!

I've offered to interview **RANV** members for the newsletter. In this way I can meet everyone and learn more about amateur radio. One of the questions I love to ask is "Why did you become a ham?" When someone asks that of me I don't really have a straightforward answer. I was a software engineer for communication satellites for telemetry and uplink systems before moving to Vermont in 1997. Since then I've been busy taking care of my family and have been active in Boy Scouts with my sons. Part of the scouting *Be Prepared* motto and my love of fiddling with things electronic may be what made me so interested in ham radio.

I took Mitch's class in 2006 during that big St. Patrick's Day snowstorm. I passed the Technician exam on Saturday and the General exam on Sunday. Unfortunately, I didn't have any equipment so my license languished for nearly 6 months. I eventually met up with Bob Hall W1DQO, an old time ham in Shelburne where I live. Bob was delighted to help me get started and loaned me an Icom-718, power supply, and antenna tuner to get started, all of which I eventually bought from him. He also helped me design and string up an Inverted-V dipole. He's in his 90's but could still shinny up a ladder to attach some coax cable over the blue spruce that serves as the apex of my dipole!

I visit several nets but am still hesitant calling CQ. My first contact was with a fellow in Eastern Pennsylvania. "Hello young lady" he said. "And how old are you?" "Forty-eight" I replied. I must have a young sounding voice! After a brief moment of an awkward silence he told me my signal was good and asked about my rig and antenna. I've also discovered EasyPal and enjoy receiving digital pictures. Transmitting is another matter.

I have much to learn. My current goal is to get my laptop talking with my rig for operating on digital modes and to begin contesting. I'm also looking for another rig, perhaps a handheld or mobile, so I can start messing about with the 6-meter and 10-meter bands. I am looking forward to Field Day (*it will be my first*) and participating in **RANV**'s community service events. I had fun at HAM-CON and actually came across several people I knew! I hope to meet everyone and beware - I may corner you for a newsletter profile!

# MURPHY IN PARADISE - THE FS5KA CHRONICLES

by Mitch WISJ

Three years ago, I traveled to St. Maarten to contest and vacation. For a contester, it was paradise. I simply said, "FS5KA, QRZ", and worked a monstrous pileup for the rest of the weekend. Then, I came down from the mountain and soaked up the sunny 80 degree days whilst lying on the beach. Ya can't beat that!

I remembered having so much fun that I decided to try this all again this year. Now there were some details which I chose to forget. First was that the wild 250 QSO's per hour rate did drop at times down to only 100 per hour. And second, I was blowing up amplifiers hourly! Third, the conditions have been awful lately, but I decided that operating from the Caribbean would solve that.

But there were issues with the antenna system at FS5KA. The main antenna is an eight element log periodic, which lost its longest element in a hurricane. The antenna is on a hazer system, but the crank and cable were rusted. Everything in the Caribbean is all rusted out from the salt air and humid conditions! Someone would have to climb the tower and block the hazer with a block of wood, while the cable and winch was replaced. That is assuming the rusted bolts could be removed. With key tools missing, I decided it was better to regroup the next day. I was also thinking that 7 elements on the tower work far better than one yagi toppled over in the brush!

The next day came and so did high winds. It was right out of the Murphy play book. There was no way we would safely take off the guy wires to lower the antenna in those winds! So, I went back to relax and mentally prepare for the 48 hour onslaught. After a relaxing meal, I headed up for a quick trip to the mountain. Or so I thought.

A bit of trivia: Where are the worst traffic jams in the world found? No, not midtown Manhattan; no, not 128 around Boston, and no, not the Hol-

lywood Freeway either. The little two lane (*barely*) road around St. Maarten is the worst traffic jam in the world. There is a lagoon in the island where all the yachts anchor with drawbridges in the north and south ends to allow the boats in and out. When BOTH bridges open at 5:30, nothing moves. And I mean nothing. The road is one large parking strip. You turn up the reggae music on the car radio, go sit outside and enjoy the sights for an hour or so, all the time repeating that Caribbean mantra, "No worries, mon!"

So it was after dark as I headed up the road (!?) to Pic Paradis. It is Paradise Peak in English but it is



the road to hell. It is much worse than the road up Mt. Mansfield. It is probably worse than the road up Bolton Mountain, if they ever built a road. It is so steep that you feel like you are about to fall over backwards. And I'm doing this at night!

I got in the shack with about an hour to spare. While tuning the amp, the SWR quickly jumped to infinite and the band died. The antenna was completely dead! It had the same gain as a piece of coax lying on the roof. There isn't much to go wrong in a Log Periodic, so I assumed something shorted in the coax. I feverishly started shaking the cable and then shaking the antenna. I tried running some power into the cable, hoping it would "cure" the cable. I even tried yelling and cursing at it, not only in English, but in French, Dutch and several West Indian dia-

lects as well. Nada. There would be no gain antenna in this contest. So I regressed to the antenna of my Novice youth, the lowly 40 meter dipole, conveniently fed by a tuner. I wasn't happy!

I was on about 30 minutes before the contest running up a frequency. At that time, conditions are good all over the world, particularly to Japan. So I was having fun with my mini JA-run, warming up for the contest, which for me, would be U.S. and Canada only. And all of sudden, without warning, a flash emanates from the amplifier and KerPOW!

When I peeled myself off of the ceiling, I realized that the whole place was dark. Luckily, the laptop continued on battery and I used the screen to provide enough light to search for my flashlight. With that in hand, I searched for the circuit breaker panel. But wait, all of the breakers were on, what gives? It was the MAIN building breaker which tripped. Luckily, I was able to restore power, wheel in a backup amp and get back on the air. But I was shell shocked. Later on, I grabbed a drink from a plastic water bottle. These usually partially collapse as you draw water out. Without warning, the plastic snapped back, sounding like another amplifier explosion. And again, I found I had to peel myself off of the ceiling.

The first hour wasn't too bad. I had a big run going on the dipole, but 20 meters didn't have much gas in the tank anyway and I had to beat a hasty retreat to 40. An hour later I moved down to 80 meters and it was sweet. Two hours of a straight 215 rate told me that the low bands were in excellent shape, so I ventured down to 160. Being more than 1200 miles from the nearest spot in the U.S. means that 160 meters has to be in good shape to produce a rate. It was! Within minutes, I had a pileup, but no one could hear me. So, I went

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## MURPHY IN PARADISE... continued from previous page...

split, "FS5KA, up 10!" The rate averaged over 120 for an hour on the top band!

Saturday morning started with a big run on 40 meters, and then things slowed way down on 20 meters. In the morning, Europe rules and the Caribbean guys actually take a back seat and take a hit on the rates. Then 15 meters popped open and it was crazy time! Three straight hours well over 200 QSO's per. And this is on a 40 meter dipole, mind you!

All good things come to an end. While 15 meters was the mainstay of my 2006 operation, by noon, it was running out of gas. I went back down to 20 meters. What a disaster! No one called me except the guy who told me to get off his frequency. I was ready to blame my woes on the dipole, but then I found some other Caribbean stations and they weren't doing anything either. I spent time moaning about the conditions with N5AU who was over at VP2E next door in Anguilla. "Gee, I could have stayed home if I wanted crappy rates!" Of course, I found out after the contest just how much worse things were stateside.

Fortunately, 20 meters became usable in the mid afternoon and the rates picked up each hour, ending with a big 210 QSO flourish until it died at 0100. When I went down to 40 meters, the word got out quickly, as the pileup was large and unruly on a band loaded with noise and QRM. I went split and picked apart the mess, managing a good rate despite the noise. I tried 160 meters and the antenna wouldn't load. "Oh no, not another problem!" The dipole showed 100 ohms of DC resistance. Yet another coax cable gone to glory! Fortunately, the conditions were poor on 160 meters that night, so no great loss.

Overnight I had a brainstorm. There was an old Force 12 C3 yagi lying on the building. If I was able to mount that on something, I would have a little gain and directivity. So, a few hours after first light, I put on the work gloves and managed to

haul this yagi up a 16 foot tower mounted on the roof. I can't say that this was one of my more intelligent ventures, as the wind was still whipping pretty bad and I did this all alone. I don't even know if I gained much signal from this antenna, but it received a whole lot better and nulled out all the bad European QRM. Sunday brought similar conditions with a big hour on 15 meters in the morning and a slow early afternoon. Finally, 20 meters came back with a strong finish.

The end result was 5467 QSO's which was down from the 6043 I had in 2006 but multipliers were up to 272 from 264. Most of this was driven by conditions. It is unknown how many QSO's were lost due to the smaller antenna, but it might not have been that much. I probably freaked out for nothing. From the reported scores, I am currently in third place in the single operator category, exactly where I was in 2006. The guys in positions one and two had much better propagation on 10 and 15 meters, and that's all she wrote!

I packed up and cleaned up and boogied off the mountain by 10 and managed to work my way down without meeting any large boulders. After picking up Debbie, we headed to the Heineken Regatta Party on Simpson Bay Beach, because I knew they had food and music there. It is a great place to unwind after a long contest. After having a tasty feast of barbecue chicken and johnnycake, a live reggae band fired up at around midnight. "I know these guys", I told myself and I wracked my brain trying to remember reggae acts from long ago. I found out that they were - *the Wailers* - the band who backed Bob Marley and their current lead singer (*a white guy from LA, no less*) sounds identical to him.

It was definitely a Murphy year to be in the contest. But putting in in perspective, with 5500 QSO's in the log, lots of sightseeing and relaxing, it was still better than a good day at work or at home!

Thanks again to my hosts, Mort W1UQ and Eddie W1RES for their help and use of their great station!

## OPERATORS NEEDED!

We have a strong need for ham operators, particularly new ham operators for several public service events in April and May. These events have had a loyal following of hams supporting them over the years. Unfortunately, as time goes on, people move on to other things and we lose communicators without replacing them.

We will provide a new operator with expert training in public service communications. Other amenities often include a T-shirt. And of course, the experience in helping out at a community event is considered priceless. The organizations get our communications help to run their event smoothly and safely.

There are at least 4 events we are looking at. The one with the most needs is the Vermont City Marathon, held on Sunday, May 24<sup>th</sup>. This is on Memorial Day weekend, which already makes it difficult to recruit. When we are all done, some 45 ham operators are involved, which makes this the largest public service event in Vermont. New operators will be trained with on-line information and a pre-event meeting. The actual event starts early in the morning and finishes up by 2. Operators are needed now. Please understand that due to tight scheduling, it is very difficult for new operators to come on board at the last minute, so commit to this now. Contact W1SJ to get signed up for this event.

If you cannot do the Marathon, then consider the Essex Memorial Parade on the Saturday before. This event is easier, shorter and a lot of fun. Again, contact W1SJ to get signed up.

The MS Walk is April 25<sup>th</sup>. See the article on this elsewhere.

Girls on the Run will take place June 7<sup>th</sup> in Essex. Contact Brian to get signed up.

**NEXT MEETING:**  
**“Digital Radio - PSK-31”**  
**Tuesday, April 14<sup>th</sup>, 7 PM**  
**O’Brien Civic Center**

***RANV***

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