



# Radio Amateur News & Views

The Official Journal of the Radio Amateurs of Northern Vermont

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## RADIO AND HIGH ALTITUDE BALLOONING

### The March 14<sup>th</sup> RANV Meeting

If you missed the excellent Milton Forum on the above topic, here's your chance to catch up on what went on. Mike KB1FDA will be back to talk about the details of High Altitude Ballooning. Brian did a presentation on this in September and it was wildly popular. It was then decided that we want to get involved in such a venture. Mike works with Shermane Austin KC2NAZ, a professor at Medgar Evers College in New York. The program is to get children involved in flying balloons and building and obtaining the instruments and radio equipment to send data back to the ground station. Besides collecting weather data, payloads typically provide crossband repeaters, television pictures and of course, APRS tracking of the exact location of the balloon.

There will be a balloon launch later this spring and Mike will give us the details. We will decide which pieces of the payload we would like to build for the launch. It should be really exciting!

The meeting is at 7 PM at the O'Brien Civic Center, 113 Patchen Road, South Burlington, Pre-meeting food at 6 PM at Zack's on Williston Road.

## COMING UP!

The last 5 weeks have been busy times and more are coming!

March 18<sup>th</sup> is the *Ham Radio Class*. There is still time for some latecomers to jump in and get their ham license in one day. A General upgrade class will run on March 19<sup>th</sup>

We have a couple of great meetings coming up. This month we will get into the details of ramping up for the first RANV space journey. Details on this meetings are at the left. In April, we are planning a meeting on DXing and DXpeditions. With the recent excitement over 3Y0X, that should be an exciting time.

Our first Fox Hunt of the year will be Friday, April 21<sup>th</sup>. John K1JCM will be the master of ceremonies live from the Fox hole.

That brings us to May 5-6<sup>th</sup> – the dates of the Spring Hosstraders!



Things getting crowded in the Flea Market



Glimpses from Milton 2006

K1D Operators  
KB1KXF and  
KB1KXY with  
Control Op N1PEA

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# OUR LAST RANV MEETING

by Carl ABIDD, Sec'y

The February 14<sup>th</sup> meeting got underway at 7:07, after being called to order by President Brian N1BQ. There were 17 members present. Brian thanked Jon KB1LIE for placing an ad in the Morrisville newspaper for the hamfest.

It was brought up that we had slipped a little on getting renewed as an ARRL Special Service Club. Brian said that he had the renewal under way and it should be completed soon.

Next on the agenda was the Milton hamfest. Mitch W1SJ went over the schedule of events that were to take place. We discussed the need for volunteer help, which included jobs of transporting tables, selling tickets at the front and back doors and control operators for K1D.

There was next a short report about the Vermont QSO party that took place on February 3<sup>rd</sup>. Mitch had quite a pileup running on Saturday, and said the weekend may have set a new record number of contacts. Brian then talked a little about FYBO, and how QRPers needed to multitask by operating from a tent while holding it down to keep it from blowing away in high winds.

It was decided that Bob, KB1FRW would bring the snacks in March.

Before getting to the guest speaker, we went around the room for introductions and then took a break for refreshments.

Brian N1BQ introduced David Hale, W1KR. David makes miniature CW keys, and gave an interesting presentation on some of his efforts. He started with a short history on the progression from straight keys to "bugs", also known as semi-automatic keys. CW operators were having wrist problems with the up and down motion of straight keys, and found out it was easier to use a sideways motion instead. Another interesting piece of trivia was the

# K1D REPORT

by Carl ABIDD

Special Event Station K1D was on the air at the recent Milton hamfest. The effort to activate a Special Event station started a few months earlier when we were thinking about coming up with some demonstrations for the hamfest. I suggested doing a Special Event Station, manned by operators under 18 years of age. Someone said OK, so I started planning. Letters went out to everyone I could think of. An application for the 1X1 call K1D went in to the ARRL. I got the call listed at QRZ.com, and the event on the ARRL web site. Some answers to the request for operators came in. Equipment was put together, and it looked good. We even got a truck with a 30' hydraulic mast so we could easily raise a triband yagi without putting up a mast or hanging a dipole

The day before the event most of the station was brought to the site, and put away for the night. We were ready to go!

Saturday morning was cold with temperatures in the low double digits. Bob KB1FRW, Jon KB1LIE and I arrived at 6:30 with the truck and the Mosley tri-bander. We assembled the antenna, and then carefully got it up on the mast on top of the truck. I pushed the UP switch and... noth-

ing. The mast stayed put. I checked out the system, and everything looked good. I pushed the up button again, and again nothing. I left Bob to look over the system, and I went inside to set up the station. After a while, I looked out the window, and once again no mast was visible. We had a tribander up at a lofty 12 feet, and that is where it stayed. And the backup dipole somehow managed to wind up in the wrong vehicle and sat out the hamfest.

fact that Vibroplex held the rights to semiautomatic keys, and those made by other companies needed to have a plate attached to them to show that they were licensed. The plates cost \$2 back then. Dave showed some of the drawings he needed to first draw to build the keys from, as well as photographs he took of the original keys (*owned by collectors*) to get measurements from. There was a nice display of several of David's finished keys as well as some of the shop tools he crafted to make the keys. His next project is a 1/3 replica of the key used aboard the Titanic!

We got on the air at the 8:00 start time. There was activity on the band, and contacts were made, although things started off slowly. One contact said we were being overrun by Italian stations that we couldn't hear at first. We moved to a different frequency and continued on. Although contacts were slow at first, it was fun. The operators were: Amy KB1KXF, Thomas KB1KVY, Colin KB1GBF, Chris KB1NBN and Timothy KB1NBR. The control operators were: Ed N1PEA, Chris N1CCL, Ron KK1L and Carl AB1DD

## Contacting RANV

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

# MILTON HAMFEST REPORT

*by Mitch WISJ*

The Milton Hamfest has come and gone and it was another great show! Ticket sales indicated an attendance of 410, but it is believed that there were another 15 kids or so who didn't pick up free tickets. The attendance from the last 4 years is: 416, 427, 395 and 410, showing a rather consistent record. This is contrasted with most other hamfests which have lost attendance over this period.

As well as it turned out, the slogan for this year's Hamfest will be known as the "Year of Murphy". I won't say that anything which could have gone wrong did, but it sure seemed like it. The Murphy festivities got underway with the table follies Friday night. The school has been removing the long tables in favor of the round tables for use in the cafeteria. Round tables are great for eating and banquets, but not so great for flea markets. Evidently, they are not good for Bingo either, as the Milton Boosters went out and bought a bunch of straight tables for their activities. Unfortunately, they won't let us or anyone else use them. I even gave them an offer they couldn't refuse in my best raspy voice (no horses were harmed). So, we had to truck tables from the Knights of Columbus in Essex. And they had culled a unknown number of tables also, so I really didn't know how many tables we could get our hands on. At the 11<sup>th</sup> hour, Bob secured a bunch of tables at LCT in Burlington. On Friday at 5, we had a grand plan consisting of teams of trucks and trailers to pick up the tables at two locations. And then the fun began. The key to the closet holding the tables at Knights of Columbus was removed from its strategic hiding place. No responsible person could be reached. We weren't going to have enough tables. We seriously considered converting the entire hamfest

to Japanese style, where there are no tables and everyone sits on pillows on the floor (they really don't have flea markets like that in JA, but it sounds exotic enough). The one problem with this plan is that we calculated that half the hams who landed on the floor would not be able to get up! We ended up with the backup to the backup to the backup plan and used the round tables. To date, no one has complained about them and many made use of the built in seats and hung around longer at the fest. So, next year we will use the round tables, set up more chairs for tired hams and declare victory.

While on the Murphy discussion, read the story of the K1D expedition into Murphy land. It is filled with stories about failed (antenna) erections, dipoles going missing, yagi parts left on the loading dock and other gory details. Murphy also claimed the balloon demonstration. The weather was too windy.

We might also say that Murphy played havoc on the weather as those who had to drive back to Southern Vermont and points beyond had 6 inches of snow to deal with. But the fact that the weatherman didn't do the usual "the sky is falling" forecast probably saved the hamfest.

Things were very scary during vendor setup prior to 8. In the past, an unruly mob descended on the back door. This time, there were very few people setting up anything. I was getting a sinking feeling that this was going to be a bust. Apparently, more people are coming later. By 9:00, the room was packed. It is true that the flea market is shrinking, but that is nothing new. However, this year, we made up for it in quality with three new equipment vendors, KJI, Quicksilver and Webster anchoring the show.

The forums again did very well. The one complaint I keep hearing was that there wasn't enough time to see the forums everyone desired. That's a good problem. And the answer is to make sure you come back next year!

The K1D and IRLP Demonstrations had a crowd gathered around it all day, so someone appeared interested. The bad news is that only 5 kids actually participated, after all the promotion which Carl did. It is sad that few kids get amateur licenses and even fewer than that do much with the hobby.

The VE session had a sizeable group of 15 which resulted in 5 new licenses, 2 upgrades to Extra and 11 out of 16 elements passed. Six candidates attempted the code test. Virtually all the candidates were from outside the Burlington area.

We had a hard working crew help produce the show. Each year we add more people and it seems there is even more work to do! Our trucking and setup crew was AB1DD, K1HD, KB1LAX, KB1FRW, N1BQ and WA1RMS. The front and back door ticket sellers were W1DEB, K1CRS, AA1SU, N1CCL and N1ZBH. **RANV** Table service agents included W4YFJ, N1CCL and KB1LIF who all did a bang up job selling ARRL books, Vermont Directories and **RANV** memberships. The supporting cast of the K1D operation included AB1DD KB1FRW, KB1IWK, KB1KPO, KB1LIE, KK1L, N1CCL and N1PEA. Thanks to our presenters: K1KI, K1TWF KB1MDA, KC2NAZ, N1BQ, VE2EQL and W1MG. The Volunteer Exam team was AB1DD, K1HD, KM1Z, and N1PEA. And I managed to be on a bunch of these teams as well, although I felt like all I did was walk back and forth! Thank you all for making Milton 2006 another memorable show.

# STATEWIDE FM NET: A SUCCESS

by Mitch W1SJ

A statewide Vermont ARES Net was held Saturday February 18<sup>th</sup>. The purpose of this net was to test and practice statewide communications using FM repeaters.

The standard operating procedure for statewide communication in Vermont is to use 80 meters. There are two problems with this plan. First, there are far fewer amateurs with facilities on this band than on 2 meters or even 70 centimeters. Second, the characteristics of 80 meters are such that skip distance kicks in during the evening hours (*i.e. the band goes long*). When this occurs, usually after 9 PM in the winter, it is very difficult to communicate across Vermont. In the summer months, static crashes make communications very tough. Only the stations with excellent antennas and high power can effectively communicate during these adverse conditions. On the other hand, the VHF/UHF networks are accessible by most amateurs and are reliable around the clock. The sticking point is that not all repeaters or the Internet system will necessarily be available in a wide spread power outage.

The net was announced via E-mail to the 150+ members of the Vermont Amateur Radio Emergency Service 24 hours before the net. The purpose of this was to determine how many operators could be notified on short notice. A similar net was run in December, 2004 during the Simulated Emergency Test and there were frequent problems with time outs and doubling. The training and discussion paid off as there were no problems this time around. The primary goal was to get used to the unique delays and timings found on linked networks.

The net included the 145.15 Bolton repeater plus the KA1UAG and N1IOE UHF network with repeaters in Williston, Williamstown, Pico Peak and West Lebanon. Short term links were made to VHF repeaters in Shaftsbury and Littleton, New Hampshire. The net ran from 10 until 11 AM and included 34 participants from 6 counties. The network covered most of Vermont, with the exception of Windham and much of Orleans and Essex counties. About a third of the participants were mobile. Many reported being able to listen to the net on 2 or more repeaters. Both the Burlington and Rutland Red Cross stations were on the net.

The net was successful and should be held on a regular basis to test the facilities and to train participants. We certainly need access points in the dark areas mentioned above. All of the linked networks in Vermont are on UHF where coverage in mountainous Vermont can be tricky. More important, there are far less amateurs using UHF than VHF. Many have radios, but have poor antennas. Several large VHF repeaters are needed to gather a critical mass across a wide area. It makes the most sense to have Internet capability at every active repeater so that we do not rely on any one system.

# DX IS...

by NIUR

The big news of the month was 3Y0X, Peter I Island DXpedition. The group was on for about 2 weeks closing down on Sunday, February 19<sup>th</sup>. Over 87,000 QSOs were made and a number of Vermonters are in the logs. King DXer, by far is Grant K1KD who made it in the logs on CW and SSB on 160 – 15 Meters (*just missing 12 and 10*). Way to go Grant! Now we know why you have that Honor Roll Plaque on your shack wall. Not far behind was Mitch, W1SJ with 80 – 15 Meters on CW and SSB. Nice job Mitch! Also found to have succeeded in getting through was KB1LAX on 17 Meter SSB. Very nice indeed. I got them on CW and SSB on 40 – 15 Meters.

I know that AB1DD and W1DEC were trying to get through and were unsuccessful. I have been unsuccessful as well on a number of notable such as Spratley Islands (1S0) and Andaman Islands (VU4) and others, so I know the feeling.

My first contact with them was on 20 Meter SSB at 6:30 AM local time on the first morning that they were on. First call – I was in a state of shock. Propagation charts had predicted that W1 would have an edge then – but first call, I don't think so. It was 5 days later before I worked them again. Then as the pileups started to thin down, those of us with towers and yagis were able to pick them off on a few bands. It was a lot of fun.

Mitch reported similar results. He got through almost on the first call several times on 20 Meters February 15<sup>th</sup> at 8:30 PM, putting W1SJ, WB1GQR and even W1NVT in the log. The CW contacts were more difficult. For the 80 and 40 Meter contacts, he waited up until the wee hours, after the Europeans had to go to work and then had an easy time of it.

There is a very interesting web site at [www.peterone.com](http://www.peterone.com) which has pictures and videos. Very cool stuff!

In other news, AB1DD picked up Hawaii to finish off Worked All States. Nice job!

I was also on for the ARRL DX International CW contest. The conditions were pretty darned good on 160 – 20 Meters, marginal on 15 Meters and a wipeout on 10 Meters. Interesting DX worked included many Europeans on 160 Meters, ZA (Albania) on 80 Meters; KL7 (Alaska), HZ (Saudi Arabia), A4 (Oman), 7X (Algeria) on 40 Meters; VR2 (Hong Kong), JA (Japan), VQ9 (Diego), ZL (New Zealand) on 20 Meters; V7 (Micronesia), S9 (Sao Tome), 4X (Israel), UA9 (Asiatic Russia), KL7 (Alaska), KH6 (Hawaii) on 15M; LU (Argentina), PY (Brazil) and a bunch of Caribbean countries on 10 Meters. Big antennas yes – but only 150 Watts. Over half called me while CQing including ZA on 80 Meters. I remember when you could get shot for using ham radio in Albania and now someone is calling me while CQing - pretty unbelievable.

The whole thing repeats on March 4-5 on SSB. Hopefully some of you will get on and “work a new one”. If you do, drop me a line and tell me about it.

## MEET THE MEMBER – KB1FRW

I have been selected by a committee of my peers to regale you all with who I am and why I'm involved in Amateur radio.

I was born May 19<sup>th</sup>, 1955 in Newport, New Hampshire, the son of a Nurse and a Mechanical Engineer. I lived in rural New Hampshire on a couple of small farms with no television and a set of Book of Knowledge encyclopedias for entertainment. This is where I first was exposed to ham radio. There on a page whose number is long forgotten I can still picture the crystal radio that was supposed to be buildable at home with the kid with the 50's haircut looking amazed at the rig and there was some graphic to show that he was talking to the world. It was very interesting to me but I never had the opportunity to pursue the hobby at the time and the dream faded. The funny thing was I never forgot the picture.

I moved to Vermont in 1969, graduated from school and went to work for Lake Champlain Transportation Company in the engine department as an oiler. Soon I was a licensed Marine Engineer and I had found a vocation that I was interested in and I am good at doing. One of the elements of engineering on ships is the electrical and electronic systems. This work fell to me frequently and I learned a lot about them.

I finally became a ham in 2000 at the urging of Mark W1MAD and Todd W1TAM, two fellow employees on the ferry. I found the Technician test pretty easy due to all the exposure to electronics at work and got 100% with about 10 hours of study. I purchased a Yaesu FT-50 handheld, got on the air and have had fun ever since.

Early on, I realized that Morse Code was not very interesting to me and I heard that the requirement would be going away so I decided to learn about the things that interested me in ham radio and wait it out. Along the way I have learned how to assemble a Field Day station, including portable towers with multiple antennas and all the details that go into making the operation a success. So far, I have attended 4 Field Days with RANV. I have helped with the demonstration stations at the Milton Hamfest, which have included PSK-31 and Internet linked radio. Fox hunting has become a favorite of mine as I try to attend all four of the RANV hunts every year. You can also find me on the local repeaters whenever I am mobile and sometimes at home on my base rig.

I am VP/Treasurer of RANV and help arrange club activities with Brian, Carl and Mitch. I have a lot of fun at all the meetings and have only missed one or two.

My wife Marsha is also a ham and you can hear KB1GMD on the 145.150 repeater on occasion and my two daughters are third party traffic at times.

I hope to continue with this hobby for a long time and hopefully the FCC will stop standing on their hands about CW so I can upgrade. I am looking forward to exploring more the mix of radios and computers and getting my Yaesu FT-100D on the air.

## I SHOT AN ARROW INTO THE AIR

*Editor's note: This came via the Internet and I don't know if it is really a true story. It is reprinted with kind permission of the CW Operator's QRP Club Incorporated – Australia. It is funny, nonetheless, and I've come really close to this scenario in my own antenna erections. The story originates from Australia, so the spelling and language may be a bit interesting.*

When the local city council advised me (*rather grumpily, I thought*) that the lamp poles on my street were NOT there for my use as antenna support structures, I of course immediately considered alternative attachment points. I equally rapidly zeroed in on a young sapling in the front yard as my next victim. Though clearly too small to climb, it was tall enough to do service if the antenna wire could somehow be hoisted over it.

Opinions amongst the amateur fraternity are divided as to which is the best method to achieve this. Some say a slingshot, others a fly-casting rod, others still a light bow and arrow. A small but vocal minority on the Internet's QRP-L mailing list even advocates potatoes (!?), suitably launched from homemade cannons made from PVC pipe, using incendiary hair spray propellant.

Already possessing a light 20 pound bow, I chose that option. Somewhat unclear on the concept, I attached my small-gauge antenna wire directly to the arrow, rather than the customary "leader" made of lightweight fishing line, and calculated a nice, high trajectory.

I carefully laid out enough wire to stop the arrow short at the top of its trajectory, bringing it safely to ground on the opposite side of the tree.

Or so I thought. Imagine my consternation when, in executing my plan, I saw the wire, which SHOULD have been attached to the arrow, layered about my feet, botched knots and all. The arrow cleared the tree all right, and kept going, and going, and going.

Although it probably only took a second or two, it seemed like an eternity as the ballistics computer located between my earlobes calculated probable bearing and LZ (*landing zone*) and came up with..

..[arse end, city bus, parked at yonder stop sign]!

Someone with more presence of mind than I would have undertaken the only sensible course of action – run, hide, and disavow all knowledge, but I was frozen to the spot in horror, watching the whole scene play out in slow motion.

With picoseconds left on the clock, the bus driver, oblivious to the inbound baby scud, decided that smoko (*cigarette break*) was over, and pulled the bus forward enough to view oncoming traffic. This was just enough to put him in the demilitarised zone, as the arrow went TWACK into the pavement 2.77 cm aft of his back bumper, embedding itself firmly into the blacktop.

To this day, I shudder to think of the explanations, the paperwork, the derision of colleagues and friends that could have been, in a slightly less kind universe, the actual outcome.

**NEXT MEETING:**  
**“Radios and High Altitude Ballooning”**  
**Tuesday, March 14<sup>th</sup>, 7 PM**  
**O’Brien Civic Center**

**RANV**

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