



Radio Amateur News & Views

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RANV HOLIDAY PARTY

Join Us December 11th
For An Evening of Fun

The RANV Holiday Party will be Tuesday, December 11th at the QTH of W1SJ in Essex. Festivities will get underway at 5:30 and will run until 10:00. 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, egg rolls, fries, drinks and munchies. 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. Past activities have included the telling of tall tales, playing with computers, getting on the air, and viewing videos and pictures. Everyone is especially 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. If you haven't already, please let him know the number of attendees who are likely "definite" and the number of attendees who are likely "maybe". This information is needed *right away* so that the proper amount of food can be ordered. If you don't say anything, there will be no food for you! 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. The best way to pass this information along is by using the RANV Holiday Party Survey form, found at: www.hamclass.net/ranv/partys.htm.

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

COMING UP!

Well, not a whole lot of stuff is coming up. The big item is the holiday party in a few days and I hope a lot of our members and families can make it. This weekend is the 10 Meter Contest. With the current conditions at rock bottom, I can't offer very much in the way of what might be heard. It is likely that the pickings will be slim and will require big power and big antennas to work it. However, make sure you put the radio on and monitor all day, especially in the afternoon. Ten meters has a nasty habit of opening up when you least expect it.

Beyond that there isn't too much going on for the holiday season. With light work schedules during the holidays, I encourage you to get on the air and make contacts.

On January 21st, we look forward to the NA QSO Party, a one day (*Saturday*) contest in which stations are only allowed to run low power. On the first weekend of February is our chance to shine, the Vermont QSO Party! But it is not much of a party if no one from Vermont shows up!

SEASONS GREETINGS FROM RANV

OUR LAST RANV MEETING

by Carl AB1DD, Sec'y

The meeting was called to order at 7:12 on November 13th by President Brian N1BQ. There were 13 members present. The first order of business was the Holliday Party. As usual, it will be held on the regular Tuesday meeting night (*December 11th*). A motion was made by Paul AA1SU, seconded by Moe N1ZBH to allocate up to \$200 for the party, which passed unanimously.

The next item was snacks for the January meeting. Paul AA1SU lead the way and actually volunteered himself.

Mitch W1SJ then talked a little about the upcoming Milton hamfest and Field Day. Help will be needed. Start planning for these events today.

Next up was the election of officers. There wasn't any opposition to the current slate, so the current officers will need to stay another year.

Paul, AA1SU then passed on his congratulations to the local clubs on the job well done during the 2007 ARRL Field Day.

This meetings topic was a talk about the radio network put in place by the Vermont RACES group. The presentation was done by Bob W4YFJ. The RACES team has put stations in 16 hospitals, the health department and in a ROVER. A ROVER is *Radio Operations Vehicle with Emergency Communications*, a truck with a large box on the back with the radio equipment inside. The equipment at the stations include an Icom IC-706IIG, tuner, power supply, wire antenna, and associated support equipment. Bob's talk was both interesting and informative.

The members headed to the snacks and a social hour a little after 8:30.

THE EDITOR SEZ

by Mitch W1SJ

In case you haven't noticed lately, hardly anyone gets on the repeaters. Meeting attendance, although OK, hasn't been great. Participation at club events has been dropping. Contributions to the newsletter are up and down, but require a tremendous amount of effort. All of the officers are nearing burnout. Your editor is way beyond burnout. And yet, we still have a strong membership of around 120.

Specifically, our problem is that we need new people to get involved and pick up the reins. Everyone has been complacent to let the current officers do the dirty work, but we are reaching the end of that. Brian announced that this is his last year as president, yet unless we all start choosing and training the new leadership now, we are going to be in a very bad situation come next November. I've been in a "temporary editor" state for over a year. Paul has picked up the slack in getting input for the newsletter. Yet I had to write most of this edition myself, something which will not happen again. I cannot and should not have to put aside revenue generating work to get the newsletter out. And until we fix this situation, the newsletter is subject to go away at any time.

We have a hamfest coming up soon, and darned if I know what forums to set up. No has given me any feedback in a long time. Of course if no one is active in the hobby, there is not much that hams are aspiring to learn about.

There is no ogre hiding in the closet causing all of this. We are collectively choosing to do other things. If this keeps up, the club and amateur radio will become totally irrelevant and simply go away. The solution: get active on the air, get active with the club, recruit new hams and breathe some life back.

KAYLE KB1JOO

In September, 2006 I relocated to Richmond, Virginia to take a new job with a local consulting firm. Since that time several things have happened. I have become extremely active in the local photography club and gone on a variety of local photography outings. Unfortunately I haven't been active in the ham radio world for several months. The clubs here aren't like back home and they just don't seem fun. They aren't anything like RANV, they also don't seem to be as community involved as RANV is, plus their meeting always seem to overlap with something. There is also so much less traffic on the repeaters here, so as a result, ham has kind of taken a back seat.

Let's move on to some more positive things. Along with embarking on a wonderful career change, I have become involved with a church, as well as some sports and am happy to announce that on December 29th, I will be receiving one of the greatest gifts someone can get when I receive my Fiancée's hand in marriage. Other than that, not too much going on here.

Contacting RANV

In Person: Holiday Party, 5:30 pm,
December 11
at W1SJ, Essex Junction

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

By Radio: 145.15 repeater

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

PUT UP A BIGGER ANTENNA!

Lessons Learned From This Year's Sweepstakes

by Mitch WISJ

It shouldn't be a surprise to anyone that we are at the dead bottom of the propagation cycle. The high HF bands of 10 and 15 meters have shown little life. Our old standby, 20 meters closes down early (*around 6 PM*) and when open, propagation is weak and unpredictable. And even the lower HF bands, which shine at this point of the cycle, have been difficult to use. The recent Sweepstakes contest was a prime example of tough bottom cycle conditions. Everyone struggled to make contacts, including the big boys. Many stations I worked, even the high powered ones, were in the noise. And, based on all the repeats they asked me for, they didn't hear me all that well, either. We can dream for the days of better propagation, but we are stuck with the propagation we have now. For continued success on HF, all operators have to have a clear plan of what they need to do and what equipment to bring to the table.

A number of operators told me their tale of woe running QRP in this past contest. Putting aside my mantra, "life's too short for QRP", running very low power is really a bad idea at this point. QRP is a lot of fun when 10 meters is hot, but is quite frustrating right now. There were times this past weekend that the kilowatt felt like QRP. I'd hate to think what QRP would have felt like. So, during the sunspot minimum, run as much power as you can. Ditch the QRP setup and think about an amp and larger antenna.

If you operate at night, or if you are trying to operate across short distances, you will need to operate on 40, 80 or 160 meters. These bands have a challenge in that whatever you put up for an antenna, it will be too low. The theory behind a dipole is that at $\frac{1}{4}$ wavelength high, it radi-

ates equally well (*or poorly*) at all vertical angles. This means that it radiates straight up as well as straight out. As you raise the antenna, it radiates better at lower angles (*better for distance*). As you lower the antenna, it radiates less in ALL directions. We all need to understand that a $\frac{1}{4}$ wave at 80 meters is 66 feet. Few hams have an antenna that high. And that means that at lower heights, the dipole on this band will be less efficient in all directions. This is why we always strive to hang the antenna as high as possible. Don't be misled by the NVIS folks. A dipole 40-50 feet high on 80 or 40 meters will be an excellent short skip performer and always better than something lying close to the ground.

There is another nasty thing which happens on the lower HF bands. In the winter months, 40 and 80 and even sometimes 160 meters develop a skip zone. When a skip zone becomes established, you cannot work across Vermont or even New England, for that matter. During the Sweepstakes, I could not work stations closer than 300 miles on 80 meters. That meant that I worked all sorts of people in Virginia or Ohio, but couldn't hear anyone in 1, 2 or 3 land. The problem is that this skip zone effect is somewhat random. In the early evening, 80 meters had the skip zone and later on (*after 9:30*) it lifted, and all the local stations came back. And then they disappeared again.

I am disappointed in the emergency preparedness plans for the state of Vermont. All of these plans call for 80 meters to be the liaison frequency between all of the nets across Vermont. I and every other contester know only too well that communicating across Vermont on 80 meters is darn well near impos-

sible on many winter evenings. That means that if the emergency doesn't occur during the day, we are in big trouble. What to do when the skip zone takes out local communications? Make sure you have an effective station on 160 meters. With a dipole running 250 feet long on this band, this is difficult at best for most people.

For effectiveness during the sunspot minimum, it is essential to have good wire antennas on the lower bands. Forego the minimalist thinking of the random wire hanging out of a tree. If you have high enough trees, get dipoles high up into these trees. If you don't have the trees, arrange to have a single high support of 40 feet or higher and set up inverted Vees on the needed bands.

There are other things to maximize your effectiveness. Make sure your station is adjusted properly. Your microphone gain and processing should be set up for the highest average power setting, short of distortion. Using processing makes a big difference of being heard in difficult conditions. Learn the phonetic alphabet and how to carefully enunciate each syllable. When transmitting in tough contest conditions, keep your transmissions short and to the point. Conditions are often up and down, so make sure you say exactly what you need to say to the first time. Timing is crucial. Time wasted repeating the obvious, or saying *ums* and *ahs* might make you lose the good conditions and when you get around to the important stuff, you fade out.

As I write this, it is snowing, which means it is perfect antenna weather. Get out there now and put up an antenna you can be proud of instead of the *mickey mouse* antennas that most hams try to use these days!

TOP BAND FIREWORKS

by Mitch WISJ

After getting my butt kicked around in both weekends of the Sweepstakes, the ARRL 160 Meter contest this past weekend was sweet. As everyone knows, we are at the dead bottom of the sunspot cycle. Everyone was bellyaching how they had awful hours on 20 meters in the past contests. Not only that, but 40 and 80 go to long skip right away, meaning that all those close in stations end up being weak or not heard at all. Conditions have been challenging. However, complaining doesn't get the job done. The excellent operator knows how to use whatever tools at his or her disposal, be they antennas, amplifiers or frequency choice to put contacts in the log.

Fortunately, 160 meters bucks this trend. When other bands are on the skids in the sunspot lull, the annoying absorption and blasted static noise subsides, making for some great conditions. It comes at a great price though. A garden variety $\frac{1}{2}$ wave dipole is 250 feet long on this band and is never high enough to be a good DX performer. Shorter wires can be used to make contacts, but such antennas are rarely good performers.

For this contest, I decided to experiment and convert my high 80 meter dipole to 160 meters. This would increase the height from my normal 50 feet to 75 feet. On paper it doesn't amount to much – kind of like raising a 20 meter dipole from 6 feet to 8 feet. But I was willing to give it a try. Some tests indicated that it had a little more zip into Europe.

The contest started and conditions were nice and quiet. The first two hours were OK, but hours 3-5 were spectacular. I held a 90 QSO per hour rate the entire time! As a comparison, during Field Day we are happy when we can break 60! But then, after a couple of hours, I

had trouble hearing stations. The receiver was literally jumping off of the table from a strong signal, but I couldn't determine where it was coming from. Finally, I figured it out. Paul AA1SU was CQing and blowing the front end away. Paul's new QTH in Essex Junction is only a mile away. That should seem far enough, but this is only 10 wavelengths on 160 meters. It is equivalent to the 500 feet we have our Field Day stations separated. Or, to put it another way, it is like 2 two meter stations 60 feet across a small parking lot! I put the attenuator in and the problem went away. But I wondered how many weak stations I wouldn't be able to hear. It turned out that this was the best thing I could do. The attenuator removed the noise and interference and I could hear the same stations with or without. In

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fact it improved my ability to copy stations. Duh, why didn't I think of this 20 years ago?

So I'm running great rates and hearing everyone well. And then, it was time for Murphy to visit. At 02:30 (9:30), I heard a tremendous crash on the roof up above. At the same time, the receiver went dead. I tried to transmit and arcs and sparks flew out of the tuner. Oh crap! It was obvious that the dipole fell down. Fortunately, I had my original dipole at the ready, and the pileups continued at the same rate. Not satisfied with his handiwork, Murphy visited again two hours later. The signals dropped and I noticed that the SWR flew way up on my original antenna. I quickly configured the tuner to end feed the dipole and continued. But I knew that this was not

an efficient way to operate and the rate responded by dropping dramatically. I put the tuner in to load the dipole and it worked! And then didn't. And then it did. Hey, what the hell is going on? Obviously, something was jumping around outside. I couldn't continue this way, because every time something would change, the tuning would be off and sparks would fly – literally! Something had to be done.

At this point a normal person would have shut down and went to bed. Unfortunately, I don't fit into that category. So, I went outside to assess the situation. Now realize that it was very windy with 30 mile per hour gusts. And it was dark – very dark. And I'm trying to see wires in the sky with a flashlight. Eventually, I dragged out my kilowatt work lights and that allowed me to see what was going on. Yup, the first dipole fell down and was draped across the tribander. But I saw nothing wrong with the low dipole. I even climbed up the tower to check the feed point first

hand (*very dumb idea on a dark, windy night*). It seemed like the dipole which fell was shorting out the other dipole, but I couldn't see any evidence of this. They were not near each other. I tugged and scrapped with it for some time, hoping that whatever intermittent there was would either fix itself or break completely. I even entertained stringing a new dipole up, but not for very long. Finally, after punching around outside for an hour, things appeared to work normally. I really don't know what the cause was, but I wasn't in the mood for an investigation. I lost about an hour of operating when I would have had a 70+ rate, so I jumped back in the saddle and continued to crank out big rates.

Amazingly, the rates stayed quite high for some time, until dropping **Top Band... continued page 5**

WHERE ARE THEY NOW?- JEFF N1YWB

I moved to San Diego in October, 2005. Since then I've been employed as a shipboard computer programmer for the Scripps Institution of Oceanography, part of University of California at San Diego.

The job is pretty interesting. I spend about 6 months a year away from home, most of which is spent at sea on board the research vessels *R/V Roger Revelle* and the *R/V Melville*. My shipboard duties involve administrating the computer servers and network, user technical support, and scientific data acquisition and quality control. Our ships travel all around the world, usually spending about a month at a time at sea. My next trip will be a 24 day cruise out of Durban, South Africa starting on January 7th.

One of the perks of the job is being able to take time off in exotic destinations. Since I work 10 hours a day, 7 days a week while I'm at sea, I can choose to either take the overtime as pay or as comp time off. I have to cash out a lot of it to afford to live in San Diego, but I do manage to spend a couple of weeks per year vacationing. In the past two years I've visited Tahiti, Samoa, Hawaii, Australia, Japan, South Korea, Singapore, Taiwan, Thailand, and Mexico. I think my three favorite places were Australia, Samoa, and Japan. But I always look forward to going home to San Diego, it's a great city. And it has an HRO!

I have several instruments that I'm responsible for, including a towed magnetometer, and a multi-beam sonar. Both instruments involve certain aspects that are familiar to me as a ham. The magnetometer measures the earth's magnetic field. Obviously ham radio also involves magnetic fields. The multi-beam sonar uses a phased array of acoustic transducers. As a ham, I am also familiar with the use of phased arrays.

I have tried to lobby for ham radio

operations on board the ships. Both ships have had ham radio stations in the past. *Melville* predates GMDSS, and used to have a multikilowatt marine HF station, as well as ham station. All of that radio equipment is now collecting dust and unfortunately I am not allowed to take it home. *Revelle* still has a ham radio, although the antenna has blown off for the second time and the Captain hasn't been keen on replacing it. Both captains are quite concerned about interference issues. I have drafted a proposal which I am submitting to the captain of the captains, which will hopefully address their interference concerns and result in the purchase and installation of some new ham equipment on the ships. I did manage to build an Elecraft K2 on one of my cruises. We have a pretty decent electronics shop on the *Revelle*.

There also used to be a major marine HF station at our marine facility on Point Loma, by the San Diego sub base. The Marfac station was actually a remote base. They had a telephone link to a transceiver and log periodic array located at the Miramar marine core air station.

It's sad to me that HF really plays very little role in modern maritime communications. Occasionally the bridge will call other ships to coordinate maneuvers, but otherwise it's mostly satellite.

I haven't been very active since I moved here. Part of that is because I am gone so much, and part is that I can't really put up any permanent antennas at my QTH. But when the fires came through recently, I realized that nobody wanted my help if I wasn't already a trained member of their organization. So since then I've signed up with both the local ARES and RACES chapters. I also managed to get on the air for SSB Sweepstakes this year. I could hear Mitch but he couldn't hear my 5-watt signal. Or maybe he was ignoring me because I was running QRP.

I married my wife, Anna Laughlin, on April 20th this year, after about 18 months of dating. She moved to America from Poland about seven years ago, and has a Bachelors degree in graphic art from Mercy College in Westchester County, New York. We're trying to save to buy a house someday. She isn't exactly excited about those "big ugly shiny things in the sky", but she's a very sweet girl and has already promised me that I can have a tower if she can have an art studio.

As great as San Diego is, we'll probably end up moving back east in a few years. Housing out here is just too expensive, and my university salary doesn't make up the difference. Also we want to be closer to my family when we have kids. So watch out because Hadji will be back!

TOP BAND...

From page 4

off in the wee hours. I had a small group of Europeans call in and had dozens and dozens of West Coast stations call in later. I finished up the first night with the highest number of QSO's I've ever had.

The second night had similar conditions, albeit with a bit more noise. Of course, the rates were much lower as I was working out the band. I took off 3 hours to go out with Debbie and the rates jumped up for a while after I got back on. Otherwise it was quiet evening, with no antenna fireworks. I even managed to work Hawaii at sunrise for 49 out of 50 states (*missed Alaska, which I've only worked 3 times in 30 years on 160*). When it was all finished, I managed to get 1151 QSO's, 75 sections and 15 countries. Not bad for a low dipole! Conditions were really spectacular as many record scores have already been reported. Make no mistake about it, 160 meters is the band to be on right now!

**THE EVENT OF THE YEAR:
“RANV Holiday Party”
Tuesday, December 11th, 5:30 PM
W1SJ QTH**

RANV

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<http://www.RANV.org>