



Radio Amateur News & Views

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CONSTRUCTION NIGHT – BUILD AN ACTIVE ATTENUATOR The April 13th RANV Meeting

For our April meeting, we bring back the wildly successful “Construction Night” series of meetings. Last year’s event was standing room only! This month we will be building an Active Attenuator. “What’s that?” you ask. An attenuator is used during Direction Finding to reduce the signal strength. When you get close enough to the hidden transmitter, the signal strength indicator is full scale and no direction can be discerned with the directional antenna. The attenuator reduces the signal so you can see the signal strength at all times and point the antenna in the proper direction. An attenuator can be “passive”, which is nothing more than a shielded resistor network, or “active” which is a circuit which mixes the received signal with a low level oscillator to produce an output on a different frequency. The active attenuator gives the best attenuation – at a cost of reduced intermod rejection. The units we will be building consist of a few parts and will work well with the yagis we built last year, or most any directional antenna.

If you plan to build a kit, please let Bob KB1FRW know so he can reserve a kit for you. It would also be helpful if you can bring extra soldering stations, hand tools, power cords and lamps. We’ll have a whale of time. I can’t wait!

FOX HUNT

The first Fox Hunt of the year will be Friday, April 16th starting at 6 PM. Paul AA1SU will be the Fox of the evening. The hunt will take place on the input of the 145.15 repeater. Ground rules remain the same as always. The Fox will be located on public accessible property in Chittenden County, maintain an S-1 signal at I-89 Exit 14 and will transmit 10 seconds out of every minute. First finder will get to hide in the June hunt and gets all appropriate bragging rights.

Last time as Fox, Paul tried a novel approach and hid in a very simple location which made the hunt more of a race than a hunt. If you have had trouble on some of the tougher hunts, this one may be for you. Of course, there is no telling where Paul may burro into .

HOSSTRADERS

Hosstraders will occur early this year – so early that it will beat the May newsletter. Here are the early details. The location is the *Hopkinton State Fairgrounds* in New Hampshire. Take I-89 into New Hampshire and head for the *Exit 7 – Davisville* exit. After getting off, go left under the highway for 0.2 miles and then go right (*Warner Ave.*). The fest will be about a mile down on the left side. The trip is about 2 hours from Burlington.

The fest opens at 9 AM on Friday, April 30th and winds down 1 PM on Saturday. Exams will be given on Saturday at 9 AM. Admission is \$10 before Friday at 3, \$5 afterwards. Sellers pay \$10 additional.

For communications, use 145.15 MHz into New Hampshire, then 145.33 MHz. At the hamfest, check in on the 146.67 MHz repeater.

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OUR LAST RANV MEETING

by Dave W1DEC, Sec'y

Brian N1BQ, opened the meeting at 7:05, with 19 members in attendance. He generously shared about a dozen publications from his personal collection. He offered his thanks and congratulations to all who helped Mitch W1SJ make the February Hamfest the success that it was. The coffers were fattened to the tune of approximately \$1,300. Wow! Well done all. It was noted that for next year, the Shriners have a source of tables, and we must get the press more interested in our Hamfest.

At the April Meeting we will be constructing Active Attenuator Kits. Thanks to Brian N1BQ and Bob KB1FRW for arranging this kit building evening. Anyone who can, please bring extra soldering stations, extension cords and lights.

Bob, KB1FRW presented a brief report on the Chittenden County Area 1 ARES Net that meets on Monday evenings at 7:00. They welcome all participants.

The MS Walk will take place on Saturday, April 17th. Volunteers are welcome.

It was a tough campaign, but Paul AA1SU prevailed for his second term as Vermont Section Manager (*no one else ran*). Congratulations!.

Jeff KB1IWK volunteered to bring refreshments to the next meeting.

Mike Seguin, N1JEZ, again impressed us with an informative dissertation, this one on the soon to be launched AMST Echo. It is to go into orbit perhaps on June 29th or shortly thereafter, thanks to a lift by a recycled Russian ICBM. Following June 29th, there is a two-month window of launch opportunity. He also treated us to an excellent Power Point Presentation graphically detailing the entire program.

Mike amazed us with the sheer quantity, power and equipment that is squeezed into this remarkable 9 ½" cube! Imagine VHF and UHF, receivers and transmitters, simulta-

THE PREZ SEZ

by Brian N1BQ, President

Spring has sprung and my crocuses are showing their tops even up here on the mountain. Growing things in nature begets growing things in hamdom. At the next meeting we will have one of our annual building sessions and construct active attenuators to go with our yagi antennas we made last year. We have thirteen kits committed so far plus six more for the St. Albans club. We are planning to kit 25 units so there will be more available on meeting night if you haven't signed up yet. I want to thank Bob KB1FRW and Fran KM1Z for all the work they have put into planning this project.

Fox hunting season will be upon us shortly. We will have the usual live fox hunts and we now have the passive Fox Box, too. I plan to put a fox box together as well, so opportunities to hone your skills will abound.

I just came back from Baltimore, Maryland, after attending the Atlanticon QRP Forum and the Baltimore Hamfest at Timonium, which are held two blocks apart. Sunday morning, while perusing the commercial exhibits, I met a wonderful gentleman, Ajoy VU2JHM, from Bangalore, India. He is second from the left in the picture at the top left of www.bangalorehams.com. It was Ajoy's first trip to America. He has a brother in Washington and a sister in New York. We walked around for a half

neous voice and digital, all stacked into 6 stainless steel machined trays. Antennas include an 18" whip antenna on top, and a turnstile below. Six solar cells, with a remarkable 27% efficiency rating produce 20 watts of power when not in the sun shadow. This bird, aided by a magnetic attitude control system to help deal with Doppler effect, is destined to orbit at an elevation of approximately 800 kilometers above earth at the rate of 6-8 revolutions per day.

an hour looking at things and exchanged QSL cards and E-mail addresses. He talked on about ham radio. Ajoy said the biggest hamfest in India is about a third the size of the hamfest we were at. Then he mentioned he is going to Dayton – boy is he in for a shock! When it was time to part company, he thanked me profusely, lamenting that on Saturday, when he was walking around, nobody seemed to want to talk and be sociable. Here he was a stranger, possibly a little overwhelmed at the excitement of being in a new place and there was no one to help. Now, you know me – nary a loss for words in any situation! We all are supposed to be communicators. I was embarrassed and apologized for what I felt was OUR rudeness.

We ended up with a high level summit meeting of the Presidents of RANV and of BARC all the way down in Maryland! It seems that Ajoy, VU2JHM, is the president of the Bangalore Amateur Radio Club, which also goes by the name of BARC.

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OPERATOR TRAINING FOR EMERGENCIES

by Mitch WISJ

Technical Coordinator

There has been a lot of talk lately about ARES Training and/or Emergency Operator Training. A new net has started up here in Northwestern Vermont which addresses this very topic. There are two key things about this net. First, this is a great idea since it is getting the discussion of Operator Training right out in the forefront. Second, this is not such a great idea since training nets train operators to check into a pre-programmed repeater, usually from home, following a pre-programmed format. In a real disaster, it is unlikely any of these conditions will occur. True, there is some useful data shared amongst the participants, but this data is readily available on the Internet.

If you read between the lines of the last paragraph, the message is that we have finally started down the road towards solid training but the Net is just one tool (*a very small one at that*) in this mission, and we would be foolish to stop there. In light of this, I have decided to use my knowledge as an operator and trainer to author a series of articles on Operator Training. However, don't fall into the trap of thinking that by reading these articles you will become a good operator. You will get some information, some controversial discussion, and a laugh now and then, but that's it. You must also take the initiative to seek out real activities and put the theories into practice. As part of this series, I will always point out some activities you can get involved in. It is up to you to get out of the easy chair and do them. And who has time for an easy chair these days?

So, here is the pop quiz. In the last 24 hours, how many hours were you in a place where you had NO access to an amateur radio transceiver? Many would answer that they are

near a radio at home, but not for the 6-12 hours that they were at work or on the road or whatever they go out and do during the day or evening. The first lesson of being an effective operator is that if you don't have a radio, you don't get to play. All the training in the world is useless. All you can do at this point is to find two tin cans and string and hope for the best.

The Boy Scouts have a motto which is very appropriate here, "Be Prepared". A disaster doesn't ask for our permission. A disaster doesn't allow us to check our calendars first. A disaster simply happens. You are either ready for it or not. That means, that at ALL times you should have a radio within reach. All of my cars have working radios and I always have access to

"A disaster doesn't allow us to check our calendars first."

one when I leave the shack. I often take an HT with me too, for when I leave the car. Frankly, when I leave the HT home, I feel naked. Not only does the HT provide me with 2-way communications, it allows me to listen to other services, including broadcast radio and TV. I can't tell you how many times that was essential.

What do you do when you are working? If you have the radio in your car, and you are within a minute or two of getting to your car, then you are covered. If you have an HT with you at all times, you are in a better situation. Not every work situation will allow the carrying of an HT, so you will have to think through what works for you (*and your boss*).

Oh, and one more minor point. Your radio has to work! The battery has to be able to power the HT for several hours, the antenna has to be able to put a good signal into the

local repeater, the microphone has to work, and you have know how to change frequency, offset and tone. More on these sticky points in another episode.

So, let me summarize this point again. Unless you are a minute or two from a transceiver, you are not in a position to be a real emergency communicator. True, you can be a weekend warrior during public service events and your help is always needed and appreciated for these. But, as the communications EXPERTS of our community, we need to be playing at a higher level. Otherwise, all this talk we spread about how we will save the day during a disaster is nothing but a lot of talk.

Homework: You don't get off lightly in this series. All readers are expected to do their homework. Use the RANV Reflector to share your experiences. The homework is this. If you use a

single vehicle, do you have a working radio mounted in that vehicle? If you use multiple vehicles, do you have working radios mounted in all of those vehicles? Using the spouse's car while she (*probably unlicensed*) has your radio in your car certainly doesn't work! If the answers to these two questions are "yes", then you are in great shape. If not, then make sure a radio is mounted in a vehicle or a radio is mounted in such a way that it can be easily slid out and transferred to another vehicle you use. You will have to sit down and think about how you want to work out the logistics. Next, if you own an HT, go back and make sure you can provide power from the vehicle and an external antenna for this HT. A stand-alone HT works a little, but has very limited range. If you already have a mobile radio, the HT, with suitable wiring, provides a great backup.

Next: What ARE we training for?

HAM CLASS LICENSES 10

by Mitch WISJ

The 1-Day Technician class was a perfect 10 for 10 on March 21st. All 10 students who signed up for class showed up and obtained their Technician Class license. Some were local and some came far distances. The next Sunday, half the group came back and passed their General test.

If Kate's last name sounds familiar, that is because Kate is N1YWB's younger sister. She admitted that Jeff helped explain some of the more technical concepts. He did a very good job as she breezed through the Technician test. A number of students, such as Dom, Quentin and Dick have off-shore sailing in mind in the future and after passing the General exam, they are hard at work on their Morse code practice. Nick, at 13, is a 7th grader at A.D. Lawton in Essex Junction. He took on both days of class and is well on his way to passing the code! Oren is also actively working towards General. He is an active motocyclist. Brent is friends with Joe N1XSN and will be joining him on the air soon. Robert works as a policeman in South Burlington and has himself a new hobby to play with when he retires. We also had a pair of Islands represented: Rhode and Staten. Dave drove 5 hours to class to get his license so he can communicate while doing his other hobby of Hang Gliding. Barry, a mere 7 hours down the road, works for the New York City Transit Authority. We had some fun discussions about commuting in the Big Apple! Welcome our newest hams:

| | | |
|--------|----------------|----------------|
| KB1LAU | Brent Chornyak | Richmond |
| KB1LAV | Dom Degnon | Stowe |
| KB1LAW | Quentin Dombro | Burlington |
| KB1LAX | Robert Hawke | Colchester |
| KB1LAY | Kate Laughlin | Williston |
| KB1LAZ | Dick Lednický | Shelburne |
| KB1LBA | Nick Orr | Essex Jct |
| KB1LBB | Dave Struzik | Westerly, RI |
| KB1LBC | Oren Vance | Essex Jct |
| KB2MSV | Barry Trelisky | Staten Isl, NY |

PUBLIC SERVICE ACTIVITIES

by Mitch WISJ

This May will again provide a wealth of public service activities in which hams can hone their skills and have fun in the process. Want to train to be an emergency communicator? There is no better way to get practice than in public service events. We have 3 events for you try out.

May 8th - Charlotte Covered Bridges Half Marathon. Hams are needed at checkpoints and as shadows on this 13-mile loop. Most jobs require a good mobile setup and a few require an HT. Difficulty: Easy. Goodies: T-shirt and barbecue lunch. Contact Paul AA1SU at 860-1134, aa1su@arrl.net.

May 29th - Essex Memorial Day Parade. Hams are needed as Marshals to set up parade marching order and to provide safety along the 1-mile route. Jobs require an HT and you will do some walking. Difficulty: Very Easy. Goodies: T-shirt (*usually*) and crowds cheering at you. Contact: Mitch WISJ at 879-6589, w1sj@arrl.net.

May 30th - Vermont City Marathon. Hams are needed at aide stations, as shadows, at checkpoints, in vehicles and on bicycles. Most jobs require an HT with good battery; some jobs require a mobile installation. Difficulty: Moderate to Difficult, at times. Goodies: T-shirt and post race party. Contact: Carl KC1WH at 878-8232, kc1wh@hotmail.com.

If you can't wait for May to get involved, check out the MS-Walk on April 17th (*article below*) or if you really want to play big, the Boston Marathon is on Monday, April 19th. Details are at www.baa.org.

If you are interested in any or all of the above events, contact the organizer now. Don't wait to be invited. The organizers cannot know that you are interested unless you contact them. All are always looking for new people to learn the jobs and help at the events.

HAMS NEEDED FOR MS WALK

The Pfizer MS Walk 2004 will take place on April 17th from 8 AM until 1 PM. This is the first event of the season and a chance to get your feet wet in the exciting world of special event communications. The walk will leave Burlington High School and head down North Ave. Rest stop #1 will be at Burlington College. Rest Stop #2 will be at the Main Street Station. Rest stop #3 will be on the bike path. In addition to the Net Control at the High School, a couple of hams will be in SAG wagons and bicycle mobiles. We anticipate needing 6-8 ham operators with HT's or mobile units, depending on the assignment. If you are interested in helping out, contact Bob KB1FRW at 434-2517 or kb1frw@arrl.net.

NEW ENGLAND QSO PARTY

The 3rd running of the New England QSO Party will take place on May 1-2. This is a nice low pressure operating event where New England stations are the center of attention. Information and the full rules are at <http://www.neqp.org>.

Certificates are awarded to anyone making more than 25 QSOs, and there are (*so far*) 26 very nice plaques to be awarded. The plaques include one for the top New England club score, as well as the top school club score.

FIELD DAY IS COMING

by Mitch WISJ

Make sure you set aside June 26-27th for our annual operating event, Field Day. If you are a Field Day veteran, you know the drill and most of the following will be a review. This would be a good time to come up with suggestions and new ideas to make a great event even better. For those of you who never participated in this before, consider getting involved with the greatest annual ham radio event each year.

Simply put, Field Day is an exercise whereby groups strive to set up functional amateur stations in a so-called "emergency situation". This entails things like setting up in a location other than home, using hastily constructed stations and using generator or battery power. Groups are scored by numbers of contacts made and other activities which they engage in. Every Field Day group has their own niche. Some, like ours, concentrate on making the most contacts and doing the very best we can score-wise. Other groups erect very minimal stations and concentrate on the preparation (*and ultimate consumption*) of food. Unfortunately for these groups, no points are awarded for this, but waistlines can be a good indicator of success in this operating category.

Planning for Field Day started with last year's event. We know what worked and what went wrong and we vow (*as we do every year*) to fix things. In the next 2 months, we will be organizing the event and planning who will do what. There is a final meeting on the Monday before Field Day to iron out the sticky details. Finally, the event starts with setup on Friday afternoon. At that time, a pastoral Williston landscape will be adorned with 3 towers and 11 antennas. By Saturday, tents will pop up and fully equipped stations will grow inside of them. At 2:00, the first of many CQ's will be issued. And, 24 hours later, the last of some 3500 QSO's will be logged. Then we get to pull it all down and truck it away for another year.

Field Day is like theater. All this meticulous work for a day or so of shows and then you rip it down. And just like in theater, you have ask yourself, what role to you want to play? We have the lead roles, the actual contesters. They may seem to be in a glamorous role, but don't kid yourself - it is a lot of hard training and work to be successful. There are minor acting and casting parts - such as operators for VHF and GOTA stations where we invite everyone to help. Then, there are the unsung heroes - the crew. Whether they are installing and adjusting the sound and light at a show or doing the same for antennas and generation at Field Day, they are some of the most important people in the house, or field, in our particular case. Finally, there are the support people who handle diverse things like promotion and food. These are important, whether it is for theater or for Field Day.

In the remaining months, decide where you want to be helping out. Contact a club officer to get pointed in the right direction for information. And then, learn everything you can before the event. You'll be glad you did. I hope to see all of you on Field Day!

INTERNET LINKING

by Mitch WISJ

Usage of the Internet Links (*IRLP and Echolink*) has increased dramatically in the last couple of months. Worldwide communications via the repeater have become commonplace. It is amazing just how reliable the system is.

With the heavier usage, it is prudent to review the rules. Because we are in a network with repeaters around the world, operating procedures are crucial. The full discussion of Internet linking can be found on the **RANV** Web under WB1GQR Repeater. This has links to IRLP and Echolink. Make sure you are knowledgeable about all of linking rules and details of the network BEFORE using the system.

It is imperative that all stations listen and then identify before sending tones. Someone has been sending tones at random and dialing up links without identification. This activity will cease immediately or Internet linking will become a closed function on the repeater. Other repeaters have had this problem and the usual solution is to block access. Don't force this to occur.

You must have a full quieting signal to access the links. There has been a problem with noisy signals dialing the wrong node or hitting a control code. Or else, stations bring up the link and then become too weak to drop it. Do NOT use an HT to access the Internet on the repeater. I'm sorry if this causes a problem for you, but there have been too many marginal signals trying to control the Internet.

Respect distant nodes by dropping them immediately when you converse locally on the repeater. This is common courtesy. A good habit to get into is that when you send your call out to a distant node, use the phrase "in Vermont" after your call. Local stations should not go back to a station saying this until the link is cleared.

The repeater serves many people throughout northern Vermont and gets busy at times. Limit your Internet linking to 3 attempts per day. If you desire to make more distant contacts, use Echolink from your home computer, or better yet, upgrade to General and get on HF!

Again, please take the time to review the full rules and procedures for Internet Linking. If you have suggestions to make the system better, please send those along to me.

**NEXT MEETING:
“Construction Night”
Tuesday, April 13th 7 PM
O’Brien Civic Center**

**FOX HUNT:
Friday, April 16th 6 PM
145.15 Repeater**

RANV

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