



Radio Amateur News & Views

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PSK-31

The June 13th RANV Meeting

Join us for our June 13th meeting as Tom W1EAT will present a talk and demonstration on latest digital mode sweeping the amateur radio world – PSK-31. If you have a computer with sound card and a radio, simply download PSK-31 software and you're on the air! There's nothing to buy!

Tom is planning to bring a receiver and a laptop so he can show how the *Digipan* software works on PSK-31. It's so easy and you can get out about as well as CW with cruddy antennas and low power. Tom will also use *Digipan* to show some very interesting things about the spectrum of the human voice and, in addition, will demonstrate a headphone accessory that he has contrived.

All of this takes place at the RANV meeting, Tuesday, June 13th at 7pm at the O'Brien Civic Center, 113 Patchen Road, South Burlington. Also, be sure to join us for Snax-at-Zachs at Zachery's Pizza starting at 6pm.

FIELD DAY

The operating event of the year, Field Day, takes place Friday through Sunday, June 23-25th. We would like as many people to take part in this activity as possible and have fun.

First, let Mitch W1SJ know that you are interested and what activity, if any, you would want to be involved in. Next, plan to attend the Field Day planning meeting Monday evening, June 19th at the shack of W1SJ. Field Day is a very complicated undertaking and you will most likely be totally overwhelmed by it all the first time you see it. The planning meeting will give you a chance to learn as much as you can about what is going on so that you will have more time to enjoy what you are doing.

There are 4 specific periods of activity: **Antenna raising:** Friday 2pm until dusk; **Station set up:** Saturday 10am until 2pm; **Operating:** 2pm Saturday until 2pm Sunday and **Breakdown:** Sunday 2pm until 6. Get involved in one or more of these!

The operator portion of Field Day is akin to a 3-ring circus. Actually, it is more like a 5-ring circus, as there are 5 stations in operation. The primary stations are the phone and cw stations, which are responsible for our 2-transmitter category. The Field Day rules also allow us 3 freebie stations: VHF/UHF, Novice/Tech and Satellite stations. The phone and cw stations are geared towards competitive operation and make the bulk of the contacts, while the other stations stress new operator training. That being said, the Novice and VHF stations combined last year for nearly 1000 QSO's amongst some great conditions.

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RADIO CAMP

Attention parents of all 11-14 year olds! Looking for a fun and quality activity this summer? Why not try the Radio Camp sponsored by the *Lake Champlain Regional Chamber of Commerce*. The camp runs each day, 8:30-3:30, July 17-21 (*Session I*) and July 24-28 (*optional Session II*). Each day will feature instruction in amateur radio communications, actual on-the-air activities on the in-class ham station and recreational activities such as picnics, swimming and play time. Session I will concentrate on the Technician license and Session II on the General. The Radio Camp will take place at the Essex Technical Center. Tuition is \$170 per session. Last year's camp had 10 kids and they all had a ball. Many got their ham licenses as well!

For more information on the Ham Radio Camp, or for enrollment information, contact Yvette Mason at 802-863-3489 x213 or E-mail: yvette@vermont.org. For questions on the actual instruction, contact the instructor, Mitch Stern at 879-6589.

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OUR LAST RANV MEETING

by Fred NIZUK, Sec'y

There was a good turnout for the May RANV meeting, despite the weather being less than pleasant. After recruiting a volunteer to bring the snack for next month's meeting, discussion turned to the RANV Field Day 2000 effort. Paul will contact VELCO to get a final confirmation for our permission to use the site. We voted to have money appropriated to P&P Septic for a toilet for use at the Field Day site. We also voted to spend money for food and drink for those participating at Field Day. Richard WN1HJW will be in charge of the food preparation again this year. In addition to the fare served last year, this year will also include BBQ chicken.

Also discussed was the purchase of a portable tower, to be used instead of the extension ladders that are currently used. Mitch W1SJ is to look at what's available at Dayton this year. It was felt that even if a different tower wasn't used this year, the idea should be investigated for next year's Field Day.

Our guest speaker was our own Mitch W1SJ, to discuss fox hunting techniques. Fox hunting, or radio direction finding, is a skill that all hams should become familiar with. It comes in use not only during fox hunt competitions; but also to locate the source of interference (RFI), whether it's interfering with your radio reception, or causing problems for your neighbors.

As Mitch seems to always be leading the pack during the RANV fox hunts, He was willing to share some of his secrets, as well as show some of his direction finding tools. One of the most useful of these is a good topographical map of the area. A street map would be useful in Kansas, but in Vermont (which isn't flat), a topographical map allows you not only to get a bearing on the signal, but make an assessment on how far away the signal source is from you. A mountain between you and the source could make it unreadable.

Next, Mitch discussed the use of directional antennas. There are several designs of direction finding antennas available, some which use active components. Mitch felt that although some may be useful, others were pretty worthless. He felt that using a typical yagi, which has a radiation pattern you're familiar with, is most effective. The down side of using a yagi is that it takes time to set up and tear down each time you want to take a reading. During a fox hunt, this extra time may determine if you're the first to find the fox.

A yagi (or even an omnidirectional) antenna won't help when you close in on the fox. Even a stubby antenna or paper clip on your HT will pick up too much signal to effectively locate the fox (especially if he's well camouflaged). Mitch showed us an attenuator that he uses to bring the signal down to a level that makes an S-meter usable. Basically a box with a row of switches, an attenuator allows you to switch in more resistors (attenuation) as you get closer to the signal source. This way, as you get near the signal source, you can switch in more attenuation to bring the reading on the S-meter back down to mid scale. By the time you have most of the switches in, you should be standing right on your prey.

THE PREZ SEZ

by Paul AA1SU, President

It was with great interest that I watched the events of March 28, 2000 unfold before me in the form of E-mail bulletins from the ARRL. Many of us have heard of the life saving aid that ham radio operators provided after a 13 year old boy was shot while at sea with his family. Jacco van Tuijl, KH2TD called "Break break break" on 20 meters and was quickly moved to the Maritime Mobile Service Net on 14.300 MHz after explaining that his son had been shot by pirates, and that he desperately needed help.

With the help of a doctor on the net, Jannie KH2TE, a nurse and the boy's mother, administered aid to Willem. Meanwhile, a Spanish speaking ham was talking with the Honduran Navy, to help transport the injured boy to a nearby hospital. Others were talking to the Coast Guard. Later, when it was obvious that more intervention was needed, the President of the ARRL, Jim Haynie W5JBP, and a member of Congress, Pete Sessions, acted to transport Willem to Children's Medical Center in Dallas. He was now paralyzed and his kidneys were in danger of failing. Willem is now receiving that much needed care and he has ham radio to thank for that. He was released from the hospital on May 24th.

Every day hams were just doing what they do best; ragchewing and passing occasional traffic on a well-known net when this happened. But, they were prepared to offer assistance when the emergency arose. This is what ham radio is all about. Just the other day, I heard Buzz KB1EPQ gracefully handling an emergency after a ham reported needing help because a tornado came through his neighborhood in Groton. This was just before the May RANV meeting started, so some of you may have missed it. Other local hams have assisted at car accidents, like Richard WN1HJW and Greg KB1AVA. Greg is blind, but he can dial the phone. This was a condensed version of what happened on the high seas.

Some of us in RANV are thinking of starting an NTS Traffic Net on the Bolton Repeater. Since most RANV members only get on 2-meters anyway, this would be a nice change of pace from the usual ragchewing. I'd like to hear from you if you would be interested in a Traffic Net. Passing traffic is the oldest ham radio mode, but it is poorly supported. A good net would give us invaluable practice for an emergency, like the Ice Storm.

With that all said, don't forget to drop by Field Day to see how we might do things in a real emergency. We will hand you a radio and you can give us a contact. Hope to see you there.

Contacting RANV

In Person: Meeting, June 13, 7pm,
O'Brien Civic Center
113 Patchen Rd, SBurlington
By Mail: PO Box 9392, South
Burlington, VT 05407
By Radio: 145.15 repeater
By E-mail: w1sj@arrl.net
WW Web: <http://www.ranv.together.com>

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President Paul AA1SU 860-1134
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Editor: Mitch W1SJ 879-6589

Please send submissions for newsletter to the editor, W1SJ.

CONTEST CORNER

by Paul AA1SU

Glancing through the most recent National Contest Journal, I was surprised to see my call sign listed as holding the NAQP CW high score record for Vermont. It was for the January 1999 competition. The score of 66,603 is quite low compared to all of the other scores, but HI, AL, & WY were actually lower. Looking through some back issues, I see that I broke the record of fellow RANV member W1EAT, a well known QRPer. That being said, it is obvious that there are not enough Vermonters contesting out there. More of you should take the time to build up your code speed and put in a strong effort. Vermont is a very rare state, and the other stations love to get us in their logs. And it is not just CW. The SSB NAQP record of 148,856 by WT1L could be topped with the good propagation that we are having. Our own KK1L recently broke the Vermont record for the NCJ SSB Sprint. The Sprint is the hardest contest that you will ever encounter because of the QSY rule. QSY means changing frequencies. So, take some time look through these columns as they come in; look at QST Contest Corral, schedule a free weekend and give me a little friendly Vermont competition!

Here is what's on tap for the next 4 weeks. June 10th starts with the ARRL VHF QSO Party. It starts at 2pm on Saturday, and ends at 11pm on Sunday. Get in your car with your XYL (or YL) and a pad of paper, tune your 2-Meter FM rig to 146.55, turn the squelch off, and drive around giving out contacts. The higher the ground you find, the better. We are in Grid Square FN34, so be aware when you drive out of it. Other FM frequencies to try are 146.58, 446.00, 52.525, & 223.5 MHz. Be sure to listen for WB1GQR from the top of Mt. Equinox at the top of each hour.

For those of you not into contesting, on Saturday June 17 there is *Kid's Day* from 2pm to 8pm. Encourage a youngster, licensed or not, to get on the air at your house, and call CQ Kid's Day. The exchange is name, age, and favorite color. Suggested frequencies are 28.35 to 28.40, 21.38 to 21.40, & 14.27 to 14.30 MHz and 2-meter repeater frequencies. This is now a League sponsored event and has been growing rapidly since its start in 1994. You may want to let the kids try their hand at tuning and don't be surprised if they want to leave after 15 minutes of so. The brief experience will leave the impression.

June 24th & 25th is *Field Day*. Be there or be square – what more can I say. On July 1st is the *Canada Day Contest*. Find a Canadian calling CQ, and send RS(T) and serial number. This is a good Search & Pounce practice contest.

Did you ever wonder if there was a contest where the exchange is your ITU Zone? Well, there is one and it is called the *IARU HF World Championship*. It starts at 8am on July 8th and ends at 8am, the next day. You send signal report and Zone 08. HQ stations will send their official abbreviation, like ARRL or RSGB. More details can be found on page 106 of the April QST. This event coincides with the WRTC2000, a contest for contesters who will all be operating from Slovenia (S5).

There is also a VHF Contest this weekend, sponsored by CQ Magazine. It starts at 2pm on Saturday July 8th, ends, and 5pm the next day. The exchange is grid square, and the scoring, as well as other details, can be found on page 102 of the June CQ Magazine or at: members.aol.com/cqmagazine/index.htm.

So whether you are into VHF or HF, there will be plenty to do in the coming weeks. Find a contest that interests you, clear the calendar, and discover the fun of contesting.

Next month: work 100 islands in just 12 hours.

SS CW RESULTS

The results have been posted in June QST for the 1999 ARRL Sweepstakes CW. RANV members W1EAT, AA1SU, and KK1L all submitted logs for a club effort (I hope). When combined with the SSB results next month, we should be able to see how our club stacked up against others of similar size. Our own Tom W1EAT, placed 3rd in the Northeast Region for the QRP category. Congratulations Tom!

AWARDS!

Paul AA1SU just picked up 3 endorsements (SSB, 40-Meters, 20-Meters) for his *Worked All States (WAS)*. Last year at this time, he earned the WAS Award with the CW endorsement on it. He is currently chasing WAS-160, WAS-RTTY, 5BWAS, and the rare, but coveted W-VT! As far as we know, Mitch W1SJ is on the only RANV member to earn the W-VT, gained by working at least 13 out of the 14 Vermont Counties.

Fred N1ZUK recently picked up his VUCC (VHF/UHF Century Club) for working a specified number of grid squares on 6-meters.

LIVE LONGER

A piece on National Public Radio alleges that American participation in organizations of all types has been really low these past two to three decades while membership levels remain the same. In 1970, the average American participated in 12 social events per year with an organized group. In 1999, it was down to 5 per year.

They attribute this mostly to television and living in the suburbs. Every ten minute increase in one's commute, apparently, reduces social participation by nearly 50 percent.

On the other hand, it has been demonstrated that increased interaction with social groups actually prolongs a person's life significantly.

Therefore, you should show up at Field Day to keep the doctor away!

THE DAYTON REPORT

By Mitch WISJ

The 2000 Dayton Hamvention was probably one of the most hyped amateur radio events ever. Being that this was the first time Hamvention would also be an ARRL National Convention, it received tons of press in QST and other publications. As usual, it was another great show, with or without the hoopla.

The trip out was uneventful, just the way I like it. We were a bit more crowded this year, with Debbie W1DEB, Mike W1RC and Tony W2BEJ staffing the wrecking crew. We ran across weather which alternated from sunny to rainy as we traversed 800 miles. Later, we found out that we missed the best of it – violent thunderstorms wiped out a lot of airline flights, delaying many Hamvention attendees.

Check-in at the motel was rather unpleasant as we learned that they jacked up the rates from \$45 to \$70 for the weekend. With the equally ridiculous 12.5% tax, the nightly damages came in just under \$80. For that princely price, I expect a beach nearby! On a later fact-finding tour, we learned that all of the lodging establishments were availing themselves of this price gouging. This and the usual 10 cent a gallon price hike at the Dayton area gas stations certainly is a very negative aspect.

Despite some gloomy forecasts, we had good weather for all four days. It was overcast much of Thursday and Saturday, but I also got a nice tan on Friday. The absence of rain was certainly appreciated.

On Thursday setup day, we went around visiting the various dealers, who were setting up massive displays for show opening on Friday. I used the time to take notes and check prices. The flea market was getting busier as the day wore on, so we skipped the usual visit to the Air

Museum and checked out goodies. I even had time to run over to the nearby Salem Mall to let Debbie check out the stores there and add another endorsement for her WAM (*Worked All Malls*) certificate.

On Friday, I ran right over to the *Ham Station* booth and picked up a Yaesu VX-5 HT. For about a week I was researching it and finally whipped out the wallet. This little jewel, no larger than a pack of cigarettes, packs 5 watts of power with the supplied battery, and, except for a few gaps, receives DC to light. It came in the nick of time, because my TH-75 HT bit the dust on UHF and I needed a radio to talk to my repeater! A whole lot of stuff was purchased on Friday, including a backup mobile radio (IC-228) for a paltry \$40 and a set of Gordon West books and

30 hunters lined up, most with some very serious looking yagis and equipment. I brought my HT and set of paper clips! The Fox Hunt coordinator had some extra equipment to lend out, so I picked up a yagi made of PVC tubing and steel measuring tape for elements. There was a box mounted on the yagi, with a knob labeled “sensitivity” and I was instructed to tune 500 kHz higher than the signal I was looking for. I assumed that none of this would really work; but my purpose in being there was to learn new ideas.

The Fox Hunt frequency turned out to be 16 frequencies. The committee managed to hide 16 transmitters all over the grounds of the school. They were all low power – 20 mW up to 1 W. And, they only gave us 90 minutes. So, I set off with my tape measure yagi to find the first transmitter on 146.52. The fool thing worked! I ended up near a fence and had Debbie dig around, looking for “something that didn’t belong there.” Now it got harder. The 20-mW transmitters only radiated a few hundred feet, so you had to walk around a lot to get within range. Being -mile from



Buying and selling goes on fast and furious!

both a paging tower and from Hamvention, with 3000 hams all yapping at once, created all sorts of crud across the band. The magic box on the yagi was getting wiped out. I ended up reverting to the rubber duck and paper clip to find the transmitters. They were buried under leaves, hung from trees, stuck in toilet paper tubes and Dixie cups! The best one was stuffed in a fake chrome tailpipe end stuck on someone’s car. The driver came by and was ready to drive off. I questioned him about this wire and he really didn’t know anything about it. I later asked the Fox Hunt chairman what would happen if the guy drove off and he

software for the new question pools. By Saturday, I was quite content, having bought a lot of stuff Friday (*and not really spending all that much!*). I took out a little time to attend a forum on Heathkits. Back in the 50’s, 60’s and 70’s, virtually every ham and many non-hams built at least a couple of Heathkits. The forum looked at the many products which Heath offered over the years, and there were a lot people nodding in recognition.

After lunch, I decided to check out the Fox Hunt. The hunt was at the High School, requiring boarding the stupid shuttle bus, but I decided, “why not?” Over there, I found some

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said that they then would have one less transmitter!

Each transmitter had a code number on it which we entered on a card. I managed to find 13 of the 16 and figured I did OK. When they counted up who found what, I ended up winning the darn hunt! Suddenly, all sorts of cameras appeared, so I suspect I'm enshrined on the Web somewhere. The prize was a Picon transmitter controller, specifically used to control a transmitter in use for a Fox Hunt. We should have some interesting fox hunts from now on!

Saturday night, I usually get tickets for the banquet in my speaker's package. Unfortunately, they don't offer free tickets anymore and I wasn't a speaker this year anyway. I thought about going to the after-banquet show featuring the Smothers Brothers. However, during the day, Gordon West invited us to the CQ Magazine Party and we headed there instead. This party features many of the exhibitors and manufacturers. Besides the staff from CQ Magazine, there were folks from Battery-Tech, Icom, Kenwood, Yaesu and MFJ. We met up with Martin Jue, Mr. MFJ and later, Dave Sumner from the ARRL stopped by. Gordon West is pushing for more manufacturer support of ham radio training and this gathering provided much networking to support it. And watching Gordo work a crowded room is great entertainment!!

Later that evening, we ran up to the Crowne Plaza to visit the Contest and DX hospitality suites. I checked in with regular Rich KL7RA. You better work him in Alaska now, as he is retiring in 4 years and moving to the Midwest! I also ran into Dan N1ND, the contest manager for the ARRL. I asked him if he received my ARRL DX Contest Log and he was heard to reply, "what contest, what log?" I even saw K4FU and told him how I like his phonetics (*like, he doesn't need any!*).

Sunday, I picked up some last minute odds and ends, and we were off on the road. It was also uneventful trip, but I worked lots of DX on 20 meters during the trip!

Field Day – continued from page 1

We want to encourage operators to get involved in the operation of the stations. There is a wealth of information which can be learned in a weekend – sort of like the ultimate classroom. Depending on the station you chose to concentrate on, you can easily become an expert on 10-meters, VHF or satellite operation, simply by being there!

Field Day is also a fun event, and we have plenty of that to go around. Besides being a mini hamfest which lasts all weekend, greater emphasis will be placed on keeping the masses fed. Chef Richard is working on his secret BBQ Chicken recipe, along with the usual staples of burgers, dogs and chips. Dinnertime will be early Saturday evening, and we will put you to work!

Some numbers tell an interesting story. We get 15 club members each year at Field Day, plus another 10 people who are not members. Some 10 members end up at other Field Day sites. Another 10-15 members either live out of state or travel. That leaves 65 members of RANV whom rarely, if ever make it to Field Day! You are the folks we would like to see come on out to visit!

So, remember the key dates and times: Monday 6/19, 7pm: Meeting at W1SJ; Friday 6/23 2pm: Setup; Saturday 6/24 2pm: Operating; Sunday 6/25 2pm: Breakdown. We hope to see you all there at some time.

GPS UPGRADED

There is good news for users of GPS (*Global Positioning Satellite*) Receivers. As of May 1st, the government has turned off its *Selective Availability* algorithm. This was an error programmed into the information used by receivers to calculate location. I'm told this error was used to keep terrorists from ferreting out the missile silos. Before GPS error varied out to as much as 250-300 feet. Now the accuracy is within 50 feet.

ARRL'S INFO SERVER

by Paul AAISU

The ARRL has a neat information feature that you can access through the Internet. ARRL HQ is glad to provide this information free of charge as a service to members.

To first obtain an index of what is available, send a note to info@arrl.org. In the body of the letter, type SEND INDEX.TXT. When you check your mail a few minutes later, you will receive a two-part index, 55k in size. You may want to print both parts out, as I did, or just leave it in the computer as a reference. There is a virtual ton of information available to us in this index. Let's say that you want to find some information on 6-Meter operation. There is a file in the index called 6MFAQ.TXT Frequently Asked Questions about 6 meters. To receive this file, you send another letter to info@arrl.org. In the body of the message, type SEND 6MFAQ.TXT. You can ask for several files by typing each request on a new line. Files on subjects such as Packet Radio, Radio Interference, Condos & Radio, DSP, RTTY, PRB-1, and Morse Code are all available for the asking. Some of the other files are available from the following categories: Ham Radio Awards, Rules and Regulations, Contest Rules, Operating Aids, Technical Information, as well as many others.

So fire up the info server, get the index, and peruse it at your leisure. When something catches your eye, send for it, and learn a little more about ham radio.

FOX HUNT

Get that DF equipment out because it is time for another Fox Hunt! **Friday night, June 16th at 7pm** is the time, and 145.15 input is the frequency. Bill N1IRO and friends will provide the hidden transmitter and running commentary. Please check in before the hunt so that we can keep track of everyone.

YOU WON'T WANT TO MISS:

Tue, June 13, 7pm: Meeting: "PSK-31"

Fri, June 16, 7pm : Spring Fox Hunt

Mon, June 19, 7pm: FD Meeting

Fri-Sun, June 23-25: Field Day

RANV

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