



Radio Amateur News & Views

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NATIONAL GUARD COMMUNICATIONS VAN The June 10th RANV Meeting

The June 10th meeting presentation will be members of the 15th Civil Support Team (WMD) showing the Unified Command Suite which supports civil agencies in case of a WMD situation. There are 57 Civil Support Teams throughout the United States, Puerto Rico, Guam and the Virgin Islands. The Unified Command Suite consists of standard commercial and existing military equipment to provide the full range of communications necessary to support the Team's mission. The capabilities of the Suite include HF, VHF, UHF, 800 MHz equipment, SATCOM, wireless internet, IRIDIUM and INMARSAT Satellite Phones as well as land line phones. The van will be parked right outside our meeting place for easy access and inspection.

In addition, we will have a brief discussion on Field Day organization. We need help!

Festivities get underway June 10th at 6 PM at Zach's on Williston Road. The meeting starts at 7 PM at the O'Brien Civic Center, 113 Patchen Road, South Burlington. Hope to see you there!

JOIN US AT FIELD DAY

by Carl AB1DD

What is Field Day? Field Day is the premiere operating event of the whole year. Clubs and individuals all over the United States and Canada set up stations to participate in this event. Stations range from single operators operating from home, to large multiple operator stations operating from temporary locations. Some stations use commercial power, some use portable generators and some just use batteries. This event demonstrates the ability of Amateur operators to set up and operate from "the field" under not so ideal conditions.

The Radio Amateurs of Northern Vermont, RANV sets up and runs their Field Day operations in Williston. We set up a small city, with our own power and light department, restaurant, operating positions; everything we need to operate for the 24 hours that this event lasts for. There is a CW, Phone, VHF, and GOTA station. RANV finishes in the top of our category, and was 1st nationwide last summer.

Field Day... continued on Page 5..

VHF QSO PARTY

The ARRL VHF QSO Party will be June 14-15th. All amateur bands above 50 MHz are available. The contest runs from 2 PM Saturday until 11 PM Sunday. The center of activity will be on 6 meters above 50.135 MHz and 2 meters around 144.200 MHz. With the spring being peak time for Sporadic E activity, 6 meters promises a lot of action. If you don't have SSB, you should be able to snare a few contacts on 146.55 and 446.00 MHz FM. The most important part is to turn the radio on and call. No one can work you if you don't power up! Get on and make some contacts!

GIRLS ON THE RUN

Communicators are needed for Girls On The Run, this Sunday, June 8th at 8:30 at the UVM Gutterson Field House. The previously reported date was incorrect. Contact Brian N1BQ at n1bq@wulfden.org or 899-4527 if you can help out.

FIELD DAY SCHEDULE

Tue 6/10 7-9 PM: RANV Meeting
Sat 6/21 11 AM: GOTA Training
Mon 6/23 7-9 PM: Meeting - W1SJ
Fri 6/27 2-9 PM: Antenna Setup
Sat 6/28 10 AM: Station Setup
Sat 6/28 2 PM: Field Day Starts
Sun 6/29 2 PM: Field Day Ends
Sun 6/29 2-6 PM: Take Down

OUR LAST RANV MEETING

by Carl ABIDD, Sec'y

The May meeting got underway at 7:07 PM on May 13th. There were 22 members and guests present.

First, some of the upcoming events were announced. This included the Essex Memorial Parade and the Vermont City Marathon. RANV members will support these events. On June 8th (June 15th was mentioned in error), help is needed for Girls on the Run. Brian, N1BQ needs some volunteers for this event.

The June meeting will be a tour of the Vermont National Guard Communications truck. The truck will visit us, so there will not be a need to go to the airport.

Mitch, W1SJ explained the problems with the 145.15 repeater. Since the receiver is being hit with a spur and desense, HTs probably will not work very good for the time being.

Next, there was discussion about Field Day. It will be on June 28-29th, the last weekend in June. Lots of help will be needed. In particular, a set up crew on Friday and a take down crew on Sunday are needed. Other jobs include GOTA operators, GOTA mentors, Food service personnel, someone to do an educational activity, and other jobs.

John, K1JCM gave a report on the Scout Camporee in Essex. There were about 300 Scouts that got to see ham radio in action. Also, John is looking for help this summer at the Mount Norris scout camp for people to teach the radio merit badge. Contact John at k1jcm@verizon.net.

Snacks at the June meeting will be provided by Ron N1LDT.

The program for this month was working the FM satellites. Mike N1JEZ once again gave a spectacular presentation. He gave a little history of the ham satellites and how they worked. He listed a few of the "easier" satellites to work, such as AO-51, AO-27, SO-50 and the Inter-

TALKING DOG

reported by John VE2EQL

During a recent trip to the states I was driving around the Northeast Kingdom. On one back road I saw a sign in front of a broken down hunting camp: "Talking Dog for Sale." Well, I needed a break so I stopped to see what the deal was. I went into the backyard and saw a nice looking Labrador retriever sitting there.

"You talk?" I ask.

"Eyup", the Lab replies.

Well after I got over the shock of hearing a dog talk, I asked "So, what's your story?"

"Ah shucks, there ain't much to tell. Is that a 2 meter antenna on your car out there?"

"How did you know that", I ask?

The Lab looks up and says, "Well, I'm a ham radio operator. I got my ticket when I was a young pup and in no time at all I had my 5 band DXCC in Phone and CW.

"The CIA heard about me and asked me to do some spy work for them. I would hang around the communications centers and with my keen hearing I could copy the transmissions. Because no one figured a dog would be eavesdropping, I was one of their most valuable spies for eight years." Copying high speed CW all day really tired me out and I knew I wasn't getting any younger.

"So, I decided to settle down. I retired from the CIA (8 dog years is 56 years) and joined a ham radio club. In fact I won fourth place in the CQ Worldwide

national Space Station, when active. Mike talked about what is needed to make contact. A regular dual band radio, along with a dual band hand held antenna will do the job. After his talk, we went outside and Mike showed us how easy it was to make contact. A few members then had a chance to make contact via the satellite.

Snacks were served, and the meeting ended around 9.

CW contest two years in a row. Then I sired a mess of puppies and got away from Ham Radio for a while. I sure miss my radio. Why don't you buy me and I'll be your CW operator at Field Day?"

I said, "let me see what I can do." I went back in and asked the owner what he wanted for the dog.

"Ten dollars", the guy says.

"Ten dollars? This dog is amazing! Why on earth are you selling him so cheap?"

"Because he's a liar. He never did any of that stuff. He's just a No-Code Tech."



ND1H cheering on the winner of the 2008 Vermont City Marathon

Contacting RANV

In Person: Meeting, June 10, 7pm,
O'Brien Civic Center
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By Mail: PO Box 9392,
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LAND OF CHAMPS CAMPOREE

by John K1JCM

On May 9-10th, members of **RANV** and **BARC** participated in the Land Of Champs Boy Scout Camporee held at the Champlain Valley Fairgrounds in Essex Junction. Activities started weeks before with equipment quartermaster KB1FRW determined to "Be Prepared". It was deemed that this could be considered a practice for Field Day. Three stations were set up: HF, CW and VHF/UHF all under the shadow of an AB-577 tower with a tribander and 40 meter dipole. We showed the scouts (*and leaders*) the fun, challenges and large scope of Amateur radio. While the HF station was well received (*by Scouts and distant stations*), CW proved to be a popular item with scouts sending CW to each other. VHF/UHF opened up the world of repeaters and HT's. With 300+ scouts and leaders present, the effort was well worth it. We like to believe this will add to the number of boys who will follow up with the radio merit badge at the Mount Norris summer camp in Eden. Speaking of Mount Norris, if you are interesting in being a radio merit badge counselor this summer (two evenings), please let k1jcm@verizon.net know.

In parallel to the three radio stations, two complimentary activities were in the same field. Howard Druckerman of the Champlain Region Model Rocket Club provided an introduction to rocketry beyond the Estes level. We tried to couple the big boy toys with VHF APRS using a Microtrak 300 unit to transmit altitude/latitude/longitude via the APRS network. While the unit did transmit during decent it was short-lived as the engine ejected instead of the parachute resulting in the rocket crashing into the hard pack parking lot. The rocket was shortened by 2 feet, with the PIC processor separated from the Microtrak and the stiff wire antenna now with multiple bends. We collected the parts, and while the rocket was done, the radio came alive once put back together. Unfortunately, that was the only rocket capable to carry the APRS payload, so telemetry was done for the day.

The second item was an activity by the National Guard demonstrating mobile radio use in the military. They brought a vehicle with the latest HF networked radios and mobile antenna set-up. The scouts set up a working station as a skills-based contest with points earned toward the overall Camporee competition.

The teamwork of the ham radio folks made this a successful event for the Camporee as well as introduction to radio for the scouting community. We look forward to seeing the scouts at summer camp for the radio merit badge

There was considerable effort make this event happen, the teamwork of the radio community really showed. I heard several compliments on how the stations just seemed to be up and running and then gone. Many thanks to the following folks for making time for this: Bob KB1FRW, Ron KK1L, Ed W1OKH, Curtis KB1KCL, John K3UBW, Jeff N1YD, Dave N1ZUL, Red K1RED, John N1LXI, Thomas KB1KVY Bob W4YFJ and site auditor Mitch W1SJ.

The following companies donated equipment to support radio at the Camporee: Exit 18 Equipment (*Generator*), UNICEL (*Internet connection*) and VHS Products (*Microtrak 300 radio/TNC*).

VERMONT CITY MARATHON

by Mitch W1SJ

Participants, volunteers and spectators were treated to a glorious day on the 20th running of the Vermont City Marathon. You can't ask for better when a day is dry, sunny, not too hot and not too cold. As the number of medical issues increase exponentially with heat, this was very important to our mission of Marathon communications.

A team of 40 amateur operators provided the communications network for the Marathon. We had operators at water stations, medical stations, on supply vehicles, on buses, on bikes and at the finish. A runner couldn't go too far before seeing the hams in the orange hats.

The communications for the marathon gets more complicated each year. Beside two nets running simultaneously on two meters, we added a commercial radio to keep track of the 9 busses used to shuttle runners all over the place. In addition, cell phones were used to reach those elusive folks who manage to stay clear of ham radio shadows. Net control was set up with two operating positions, each of which listened to both nets. So, whenever one operator was busy with a situation, the other operator was able to jump right in. The Net Control response time was the best I've ever heard. Special thanks to Steve KB1IVE and Stuart ND1H for their expertise in helping me at this critical position.

The net went about its business of restocking aid stations, dealing with problems, clearing the Beltline and of course, provide medical assist. There were several medical transports during the day; however none appeared to be too serious. In all the planning meetings, we organized for all sorts of doom and gloom scenarios. None of these materialized and it was, for the most part, clear sailing all day. But we were ready for just about anything!

Out of the 40 hams involved in the Marathon, **RANV** members who participated: K1CRS, K1JCM, K1PJM, K2KBT, K2MME, KB1FRW, KB1KPO, KB1KXF, KB1LIF, KB1MDC, KB1MPL, KB1OAH, KM1Z, N1LDT, N1LXI, N1TND, N1UFI, N1WWW, N1YD, N1ZUL, ND1H, W1DEB, W1RFM and W1SJ.

BASIC LEGAL ISSUES IN HAM RADIO - Part I

by Zachary Manganello, K1ZK

We hams often face legal issues. Our very licenses depend in part on a federal agency - the FCC. We face covenants, conditions, and restrictions (CC&R's) that occasionally interfere with our plans to install shiny antennas. The ARRL often touts advocacy in Washington, D.C. as one of the benefits of membership. And we all have to abide by the rules in Part 97. Now that I've studied law for a while, I'm beginning to understand how some of these things work and fit together, and I thought I might take this opportunity to share some of what I've learned with you.

I need to say this at the outset: I am not a lawyer; I am a third-year law student at Vermont Law School. Do not rely on anything I write here as legal advice. If you have a legal issue, seek out a qualified attorney. As an aside, the ARRL does run a "volunteer counsel" program. The volunteer counsel for Vermont is Trevor Lewis, KD1YT, though he has told me that while he can advise you, he cannot enter an appearance in court on your behalf because he works for the State.

Let's begin with the basics. I want to put some of the legal stuff you learned on your ham radio exams into a context you might not have considered before. We all know that the Federal Communications Commission is the entity that sets the rules for amateur radio in Part 97 and enforces them (*think Riley Hollingsworth, K4ZDH*). But I want to explain the FCC's role in more depth, drawing on a field of law known as "administrative law," but also touching on constitutional law and a few other fields along the way. The FCC is an *independent federal administrative agency*. What does this mean? First, it's *independent*, which means it is not a so-called "executive agency" (*like, say, the Department of Agriculture*). This makes the FCC slightly more independent of the

President than an executive agency for a few reasons: 1. rather than have a single person head the agency, as is usually the case for executive agencies, the FCC is managed by a group of five Commissioners; 2. rather than serving at the pleasure of the President, the Commissioners can only be removed "for cause" (*i.e., for reasons greater than mere political disagreement*); 3. rather than serving until they resign or are fired, Commissioners serve for a term of years on a staggered basis, so that a President in a single term cannot replace all of them; 4. the statutes require that no more than 3 of the 5 Commissioners can come from a single political party. You can learn more about the FCC Commissioners at www.fcc.gov/commissioners.

Second, the FCC is a *federal agency*. That distinguishes it from a state agency like, say, the Vermont Agency of Transportation. You can take entire courses on constitutional law and the nature of our federal system, which is indeed quite complex. Suffice it to say that the federal government is one of limited (*or enumerated*) powers, which are set forth in the federal Constitution. The Constitution does not explicitly say that the federal government shall have the authority to regulate the airwaves. But the federal government, and thus (*because Congress has delegated authority to it*) the FCC, does have authority to regulate the airwaves because of the broad powers granted to the federal government under the Constitution's Commerce Clause (*which you can find in Article I, Section 8, clause 3*). It was under the Commerce Clause that Congress had the power to create the FCC, which it did in the Communications Act of 1934 (which you can find in the federal statute-books beginning at 47 U.S.C. § 151).

Third, the FCC is an *administrative agency*. The Administrative Pro-

cedure Act (*which you can find beginning at 5 U.S.C § 551*) defines "agency" in the negative, basically saying that an agency is any authority of the U.S. Government *except* a whole list of authorities (like Congress, the courts, the military, etc.). And the FCC is "administrative" because it administers a portion of the law. Note that there is law that *governs* agencies (*like federal statutes and the Constitution*), and there is law that agencies *make* (*like Part 97*). Yes, it's true: Congress is not the only authority of the U.S. Government that can make law. This general statement is subject to something called the "nondelegation doctrine," but for our purposes it suffices to say that the FCC can actually make certain laws that have all the binding force as a law passed by Congress.

This is a good time to talk about Part 97. We hams all know about the existence of Part 97. But what is it a "Part" of? Well, Part 97 appears in the Code of Federal Regulations (CFR), which is basically a compilation of all the laws (regulations) that federal agencies make. The CFR is divided into 50 Titles. Title 47 deals with telecommunications. Title 47 has three Chapters, the first of which deals with the FCC. Chapter 1 has four Subchapters, the fourth of which (*Subchapter D*) deals with Safety and Special Radio Services. Subchapter D contains sections (Parts) 80 through 101 of Title 47. Part 97 deals exclusively with the Amateur Radio Service. Thus when we talk about Part 97, we are referring to 47 C.F.R. § 97. Once you're in Part 97, you'll notice it's divided into six sub-Parts, each containing different provisions. For example, if you look in subpart D (*technical standards*), you'll find § 97.301, which deals with authorized frequency bands. Now you know where the amateur radio rules fall in the grand scheme of things!

Legal... continued on Page 5, col 2

Field Day... continued from page 1

One thing we need is operators. This is where you can help. The GOTA (*Get On The Air*) station is for new hams and those who don't get on the air much. Although the Phone and CW stations are highly competitive, the GOTA station is more laid back and geared to the inexperienced operator

I would like to invite you to join our team for this event. No experience is needed. You can even bring along non ham friends to operate! There will be a mentor there to explain what to do, and assist you. Your job would be to make as many contacts as you have time for. There is a short exchange of information, and the exchange will be scripted out so you will know what to say.

This event lasts for 24 hours. Each operator is asked to do an hour (*or more*) of operating time. If you don't want to do a full hour, that's OK. We can work with you on that. If you want to do more, that's fine too.

The event is takes place on June 28-29th. The operating portion starts at 2 PM on Saturday, and runs for 24 hours until 2 PM on Sunday. There is space for camping overnight. Food will be provided for those who are "working" during meal time. Can't make it during the operating times? There are many opportunities to help at set up on Friday afternoon, and tear down on Sunday afternoon. It is quite a sight to see a field turned into a small city.

More information is available at www.ranv.org/fd.html.

We have 3 meetings prior to Field Day: the RANV meeting June 10th, the GOTA training meeting on June 21st and the Field Day meeting on June 23rd. Attend these and learn!

Please let us know how you want to help out. Operators will need to be scheduled in advance. This is first come - first serve.

Contact Carl at ab1dd@arrl.net, or contact Mitch at w1sj@arrl.net or call him at 879-6589.

Legal... continued from page 4

You may already be familiar with the ARRL's "FCC Rulebook," which explains most of this, but if you're like me, you know the rules are bound to change, and you're too cheap to purchase a new book every year, so you just go to www.gpoaccess.gov/cfr and read the code in its most up-to-date form. The problem, of course, is that laws and regulations can sometimes be mystifying as to what they actually mean! If you read one piece of the code, you might think you know what it says, but you have to be exceedingly careful. Other pieces of the code might define key terms used in the piece you're reading, or carve out exceptions to the rule you think you've discovered. The federal income tax code, for instance, is notoriously tricky! This is why just reading the code may not be enough. If you are going to rely on an interpretation of a part of the code (or any law, for that matter), then you may need a lawyer to help figure out what it means, or at the very least you might need to read the ARRL's FCC Rulebook for explanations.

So far we've taken a close look at what the FCC is, where it gets its authority, and where the rules it makes fit in to the larger legal picture. Next time we'll move on from the basics and look at a few discrete legal issues that arise in the ham radio context.

ESSEX PARADE

by Mitch W1SJ

Each year, two days before Memorial Day, is a bit of craziness called the Essex Memorial Parade. Actually, it is a serious and somber event much of the time, but for the volunteers who are given the job of collecting thousands of marchers into organized divisions, it is job not much different than herding cats. Mix ten marching bands, several fire trucks, dozens of farm tractors, countless Shriners in their funny cars, war re-enactors with their muskets, two moose, a gorilla, a sea monster (*Champ*) a senator (*Bernie*) and a Governor (*Douglas*) and you have the makings for a hellava morning. At times, it appeared that the marchers were more organized than the non-ham marshals! Somehow this motley crew managed to look quite presentable as they marched down Lincoln Street toward the reviewing stand.

Once again, RANV was well publicized with the Communications Van decked out with banners, flashing strobe, amplified CW and many, many antennas. RANV-2 the erstwhile companion go-kart, managed to run this year and I managed to terrorize marchers and spectators alike with feats of daring driving. I also kept close watch on all of the marchers in several divisions.

Thanks to AA1SU, KB1DUI, N1LXI, N1WCK, W1DEB, W1SJ and W4YFJ for their help.



KK1L training a new crop of contesters at the Camporee



Champ finds some victims at the Parade

**NEXT MEETING:
“Communications Van”
Tuesday, June 10th, 7 PM
O’Brien Civic Center**

**FIELD DAY
Friday-Sunday June 27-29th
Redmond Road, Williston**

RANV

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