



RADIO AMATEUR NEWS & VIEWS

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RADIO PROPAGATION

The July 14th RANV Meeting

When you get on the radio, some of you may be asking questions such as these: Why can I hear Texas on 20 meters but cannot get into New Jersey? Why is 6 meter Sporadic E, well, so sporadic. How come I can hear distant repeaters on 2 meters in the summer? Why are conditions so crappy lately?

Our own Dr. DX, W1SJ will be on hand to answer these and other questions. With 46 years and a ¼ million QSO's of experience, he knows a little about propagation. Or, at least, he knows when to put the mic down and pick up a fishing pole instead.

We'll learn about the basics of ionospheric propagation, sunspots, auroras, magnetic storms, tropospheric ducting and dreaded Coronal Mass Ejections! Come ready to learn a whole bunch of new concepts and plan on being a dangerous operator when you master them!

The RANV meeting will be Tuesday, July 14th 7PM at the O'Brien Civic Center, 113 Patchen Road, South Burlington.

UPCOMING ACTIVITIES

Mitch W1SJ

Now that WRTC 2014 is behind us, it will be a quiet summer, at least for me! But we have a few things going on which are interesting.

The weekend of August 1-2 is the running of the MS-150. Bicyclists will be riding down to Crown Point on Saturday and down to Middlebury on Sunday while raising money for Muscular Dystrophy. Amateur operators are needed to provide communications at aid stations. If interested, contact John N1NRA at jollyjohn@comcast.net

Saturday, August 8th is the STARC Hamfest, 8AM-1PM at the VFW, 353 Lake Street, St. Albans. As that is winding down, head over to the RANV Picnic, 11AM-4PM at Kill Kare State Park, just down the road from the fest. It's the perfect doubleheader – a little flea market and ham radio socializing in the morning followed by burgers and hotdogs at the beach all afternoon. To be continued

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groups.yahoo.com/group/RANV

Meetings: 2nd Tuesday • 7:00 PM
113 Patchen Road, South
Burlington

The O'Brien Civic Center

Repeater: 145.150, PL 100; WB1QR

New Hams, Mentoring:
RANVMentor@gmail.com

RANV will supply park admission, drinks and fire up the barbecues, and you bring the rest. As is customary, we will have several HF stations set up to make contacts – all we need is some good conditions.

Heading toward the end of summer (are we there yet?) is the New England Division Convention at Boxborough, MA, Friday August 21- Sunday August 23. They will have a whole host of dealers, forums and meetings, so be sure to make it down. Details can be found at www.boxboro.org

FIREWORKS ON THE RADIO

Mitch W1SJ

I always try to find new and novel ways to include radio technology in other non-radio things I do. One of neat tricks I do is listening to the fireworks!

The July 4th Fireworks in New York City are a big deal. The fireworks are launched from several large barges. The barges move from year to year. From 2010 until 2013 they were in the Hudson River, and the last two years and several years prior to 2010 they were in the East River. One needs to carefully do his or her homework, or else you'll find a lot of skyscrapers blocking the view!

This year, there were 4 barges opposite midtown (42 Street), and a double barge further downtown, near the Brooklyn Bridge. The fireworks are electronically controlled – the launches occur simultaneously from all 5 barges. This is a far cry from the days they used to use a match! And not only that, the fireworks are part of a nationally televised show with entertainment on live TV with many, many cameras. It is a logistical nightmare.

To keep track of everyone, the director uses a radio system on what is called a “cueing channel” to give direction to the various cameras on buildings, in the street and in helicopters. These frequencies are just above the 70 cm band, typically around 450 MHz. So when I watch the fireworks, I have the headphones on and listening to the cues. I know exactly when the fireworks start (they count it down), when there is a pause and even the kind of fireworks coming up next – “OK here come the smileys...” It goes without saying that network directors are A++ personalities on their umpteenth cup of coffee, and are highly entertaining to listen to. They do play music to the fireworks, which can be heard on a local AM radio station, but the cueing channel is far more interesting – and they have the music on in the background anyway.

It is not likely you will hear this type of radio traffic around here, but if you ever make it down to fireworks in New York, 1. Have your head examined, and 2. Bring a radio with headphones!

FIELD DAY 2015 **Mitch W1SJ**

RANV has been actively involved in Field Day for some 20 years, and some of us have logged over 40 years of expertise. Anyone who is involved in complex operations know that Murphy's Laws usually surpass and supersede all other laws, including those of Ohms, Maxwell and the U.S. Congress. The best laid plans are cast aside by Murphy. In other words, you had better bring your lucky charms and joo-joo beads to the event, just in case.

This year's event was a classic Murphy Field Day. Such events are not all that uncommon. Back in 1988, when the group was known as the Silicon Junction Radio Club, we had come off 2 successive years of winning and were looking for the three-peat. A halacious thunderstorm greeted us as Field Day started from which we never got untracked.

And then there was 1996. After a few hours, radios started dying with marked regularity. We had so many radio failures that a corner of one of the tents was set up for triage. Eventually, we determined the problem – the generator was putting out 150 volts. But the real problem was that FIVE – count 'em – FIVE separate people using FIVE separate voltmeters measured 150 volts and each and every one determined that their meter was at fault and didn't bother to mention it to anyone else! We didn't win that year, but we were in the running for most comedic Field Day.

Now, on to this year's Murphy-fest. Things started out with a missing guy wire unit for the CW tower. This should never occur as Bob and I are very meticulous about checking inventory. It required a trip home during Friday rush hour traffic, but it didn't cause much of a problem during setup, which was relatively smooth.

The fun began at the 2:00 start. We knew that the propagation conditions were not going to be good. I figured that we would otherwise prevail. No such luck. After 10 minutes, it became painfully obvious that I couldn't buy a contact on 20 meter phone, during a time I'm working 200 an hour. And then the UPS went into overload and shut off – another bad omen! After getting that resolved, I quickly bailed out and jumped up to 15 meters and things were back to normal. In fact it would have been a tremendous hour, not counting the first 20 minutes of frustration. The second hour was fairly normal and then Jeff jumped on. Things were OK for a while, but then 15 meters ran out of gas, 20 meters was unusable and the rate was a disastrous 39 – which is not even all that good in the overnight! Meanwhile, the CW station was on 20 meters and doing quite well. I couldn't understand it. I got back on 20 meters and found I was working a lot of Europeans. Suddenly, it occurred to me what was going on. I popped outside and my worst fears were confirmed – the 20 meter yagi was pointing due East! When we put the 20 and 15 meter yagis up, they were lined up perfectly – out of phase! I didn't think this was possible, but there was the evidence right above me!

It was an easy enough procedure to turn the yagi around to West and when I did that, the rates came right back up. I felt both relieved and sick – relieved that we were back on track and sick that a moment of inattention during setup cost us hundreds of QSO's. Those feelings were not felt for long as the super high rates quickly dissipated to lackluster rates. Yes, the backwards yagi hurt us, but the big story was that the propagation on 20 meters was simply not producing good rates – even with a properly set up superior antenna. While 15 meters did well for us when it was open and 80 meters provided good rates for a few hours, we had many poor hours on 20 and 40 meters which we could do nothing about. The coronal mass ejections and unsettled magnetic conditions resulted in weak signals across the board. Many of the non-Field Day ops who we normally feast on were just not heard. Many other Field Day groups hightailed it to CW which works better in weak conditions. Ultimately, we were 1000 QSO's short of last year's phone numbers.

But along with the bad propagation, we had a litany of minor annoying problems. None of these episodes resulted in much of a QSO loss, but, as a whole, they underscored how just how jinxed we really were. At several times, RF from the dipole on both 80 and 40 meters got into the power supply running the K3 and shut it down, requiring a reset. The contest software, NA crashed and lost the log – the first time this has ever happened in 25 years. The log was actually not lost – when the computer was reloaded, everything was fine. Our second radio computer locked up and it too, had to be reloaded – the first time that ever happened. Around 6:30 in the morning, Bob woke me up to tell me that the dipole end fell down. Fine, go put it back up! Then, after it was put back up, it still didn't work – the feed line melted from arcing to a nearby wet tree limb. Man, you just can't make up stories like this!

Over at CW, they had a whole bunch of different problems. The generator popped off early on – reason unknown. Later, the extended run gas tank did not feed into the generator causing it to run out of gas and go off. Now, there was a UPS, but it did not keep the station running. Later it was learned that the main station was not plugged into it! Several times, RF levels from various antennas crashed the computers, causing more loss of operating time. But at the end, the CW station managed to work a reasonable amount of stations – running just ahead of the 10-year average. Not bad for a bad year of propagation.

Even the GOTA station was not spared. After a good evening of making contacts, it ran into a wall finding stations to work Sunday morning (along with everyone else). And then the tuner started acting up – making the receiver deaf. Because we did not make the 500 QSO limit we lost both QSO and bonus points.

I'll have the full story of all the numbers next month. Suffice it to say; with our totals down 2000 points, we did not win. A few stations operated primarily CW and did quite well. The group which will likely win had super openings on 10 and 6 meters and worked hundreds of stations on both bands. We managed a measly 12 QSO's on 10 meters. Based on the

numbers I've seen, we will be lucky to be in the top five. It was just not our year!

But let's look at the glass half full scenario. Despite the crappy propagation and crappy weather on Sunday, we still made 3675 QSO's, raised a few bucks for COTS, got excellent publicity on channel 44 and in the Williston Observer, operated during a heavy rain and wind storm relatively unscathed, had steak for dinner and from what I hear, everyone still had a good time. I've heard stories from other Field Day groups who got washed out, blow away or worse, didn't even go out when they heard the weather forecast... So while we didn't win this year, we still mounted a tremendous effort and we were still quite competitive. As they used to say in Brooklyn, "wait 'til next year!"

Club Coordinator VT Section Paul Gayet AA1SU

Hello fellow Vermont hams,

I am pleased to announce that I have appointed a new Affiliated Club Coordinator (ACC) for the ARRL Vermont Section. He is Charles Piso N1CAI of Pittsfield, VT. Charles holds a General Class license, and has been a ham since 2012. Charles' primary ham radio influence was his grandfather, who had a connection to the early Marconi stations and later worked for the BBC. Mr. Piso comes from the law enforcement and EMS fields in MA.

Here, he was very involved with emergency communications. When he retired due to an injury, he finally got his ham radio ticket. He is also an ARES member.

Our previous ACC was Allen Tinker W1AAT who served in the position for several years. When Allen asked to step down recently, I asked Charles if he would consider the appointment, and he did. I want to thank Allen for serving in the appointment and for his hard work.

The ACC appointment is part of the ARRL Field Organization. If you check out the Field Organization web page on the ARRL site, you will see that as Section Manager, I make several appointments for a various crucial program areas. The ACC is the primary contact and resource person for each

Amateur Radio club in the VT section, specializing in motivating, providing assistance and coordinating joint activities of radio clubs. Some of his duties include getting to know amateur radio club members and learning their needs, strengths and interests, encourage club activity, help with SCC forms, and to encourage new clubs to become affiliated. He will also keep after Affiliated Club Presidents to ensure that their annual reports are up to date.

If you hear Charles on the local repeater, be sure to welcome him to his new appointment.

If you are interested in learning more about the ARRL Field Organization, here is the web site:

<http://www.arrl.org/field-organization>

Be sure to let me know if you are interested in a certain appointment.

Museum Ships on the Air Carl AB1DD

Well, the special event on the Ticonderoga is now history. We had a successful event this year. There were some periods with good propagation, and some periods of poor propagation. Despite the bad periods, we did manage to work 670 contacts. This included 13 ships, and a few other contacts of note, below. The operators included KB1WXM, N5WVR, KB1ZEB, KB1THX, KB1PDW + Lucinda Hill, KB1IVE, KD1BL, KA1YYB, K1WAL, KB1FRW, and the 2 of us who put this together, W4YFJ and AB1DD.

I would like to thank everyone who participated in this event. Without the operators manning the radios, there wouldn't be an event!

Ships on the Air

K80 LT5 TUG BOAT CARGO OSWEGO NY
K8M MILWAUKEE CLIPPER PASSENGER SHIP
MUSKEGON MI
N2HTL SHIP SULLIVAN DESTROYER BUFFALO NY
VA2GNO ONONDAGA SUB QUEBEC CANADA
VA3VGC KEEWATIN PASSENGER STEMSHIP PORT
McNICOLL CA
W2W WW 2 MUSEUM MARYLAND
W8AGB USCGC MACANAW ICEBREAKER MACINAW
MI
W8M MILWAUKEE CLIPPER PASSENGER SHIP
MUSKEGON MI
WA3BAT OLYMPIA CRUISER PHILADELPHIA
WA4USN YORKTOWN AIRCRAFT CARRIER
CHARLESTON SC
WW2DEM USS SLATER DE766 DESTROYER ECORT
ALBANY NY
WW2IND INDIANAPOLIS MEMORIAL CRUISER
INDIANAPOLIS
WW2LST LST325 LST EVANSVILLE IN

OTHER STATIONS OF NOTE

WW2COS EIGHTH AF MUSEUM RADIO CLUB
SAVANNAH GA
YT1FG SHIP MM SERBIA
W8BI DAYTON RADIO CLUB DAYTON OH

Secretary's Minutes K1WAL

The meeting began reasonably on time. Paul AA1SU announced that he will be attending the upcoming New England Division Cabinet meeting for the ARRL in Boxboro. He asked if any RANV member would like to attend with him.

Paul also brought to display his Centennial Plaque for those who participated in the W1AW/1 for VT (W1T). Paul also earned the Centennial Points Challenge Award. It was a very handsome plaque!

There was a brief discussion on the Field Day To Do List, Mitch took names.

Jim KB1LOT will bring snacks for the July meeting. Thank you Jim!

Presentation:

Bob W4YFJ and Bob KB1WXM began their presentation with a slideshow of the Museum Ships weekend operation on board the Steamship Ticonderoga at the Shelburne Museum. We made about 670 contacts from 13 countries and many very cool Museum Ships!

Portable Antennas – Don't leave home without one! What is the best portable antenna? Ask 10 hams and you will get 13 answers.

The Bobs covered 3 general types of antenna often used for Field Day, portable operations, SOTA, backpacking, etc. These are dipole, vertical, and end fed.

Dipole – easy to install, inexpensive, takes little room to pack and is light weight, works well. A small clothesline wheel is handy for storing and installing. Examples are the yo-yo dipole (Bob KB1WXM brought his), the Budi Pole rotatable dipole, G5RV, and homemade varieties.

Vertical – easy to install, costs more than a dipole, fed with coax, takes more room to haul, and works well. Examples are the Budi-stick, and homemade versions. Bob W4YFJ brought his tripod which he uses as a base.

End Fed – fairly easy to install, relatively inexpensive, take little room to pack, fed with coax or direct line, works well.

After discussing the types of portable antennas they showed the results of testing they did comparing a vertical, an end fed, and a G5RV. All worked well but depends on location and other factors.

At the end of the presentation a list of resources for portable antennas was passed out to all those in attendance.

Next Meeting: Propagation

What does it mean when we hear about propagation as it pertains to amateur radio? Wikipedia says "Radio propagation is the behavior of radio waves when they are transmitted, or propagated from one point on the Earth to another, or into various parts of the atmosphere." These radio waves are affected by many different factors including the goings on of the sun and those terms we sometimes hear such as sporadic-E and sporadic-F.

Mitch WISJ present an overview of what propagation is and how it affects our radio operations. This will be a great presentation for all hams, old and new.

**SAME SEX CABLE CONNECTIONS APPROVED
WASHINGTON, D.C., April 1, 2016**

In a move being touted by proponents as “ground breaking” and by critics as “the end of the world”, the Federal Communications Commission has announced approval of same sex cable connections.

Cable rights activists vowed to get the measure approved through congressional legislative channels should the FCC not take prompt action.

FCC Commissioner Roberto De Stankhousen announced today’s decision as members of the press and the cable connection rights group “Friends and Users of Cable Compatibility” gathered in the Rayburn Office building lobby. No longer will it be necessary to connect a PL-259 with an SO-239. An RCA male no longer need to feel incompatible when connected with another RCA male. A quarter inch phono plug may now be used for a direct connection to another quarter inch phono plug. This is truly a landmark day! Today’s announcement has left technical specialists scratching their collective heads over the decision.

“I’m all for parity among cables and connections”, says Dr. Phillip Von Beckentoffer, the creator of the small NGF style connector which no one uses and doesn’t even know exists.

But this creates more issues than answers. Exactly HOW do I get the two male connectors to stay together? I can’t get it to work. I experimented with this type of thing in college.

Outraged cabling technicians are vowing to appeal the FCC decision. Thomas “Red” Scrollinger – an experienced cable tech – “ questions the decision from his office in downtown Petaluma, California.

“There’s no way to mate them together. Further, how robust is the FCC’s decision? How encompassing is this decision? Can I use an RCA male with a BNC male? How about a PL-259? It’s wide open for interpretation. Frankly, I don’t like all the gray area.”

A public hearing is scheduled for Thursday at 4:00 PM. The FCC ruling goes into effect 90 days afterwards.



NEWS & VIEWS

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Upcoming, Notices, & Misc

- Steering Wheel: 3rd Tues 6:30; Ninety-Nine Restaurant, Taft Corners, Williston
- VE Exams every 2nd Friday; Red Cross Building 29 Mansfield Ave, Burlington
- Dues due? Pay online at www.ranv.org/ranvpay.html

NEXT MEETING Radio Propagation

Tuesday • July 14th • 7:00pm
O'Brien Civic Center • Patchen Rd
South Burlington, VT