



RADIO AMATEUR NEWS & VIEWS

The Official Journal of the Radio Amateurs of Northern Vermont

October • 2011

An ARRL Special Service Club

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NEXT MEETING:

“SKYWARN”

THE OCTOBER 11TH MEETING WILL be a SkyWarn presentation by the good folks from the National Weather Service in Burlington. With winter fast approaching, this will be a good brush-up on what to watch and listen for and what the NWS needs from us. Plenty of Q&A time and the usual munchies. Come join us for this always popular presentation!

CLUB ELECTIONS

October's meeting is our annual Call for Nominations. It's your turn to take a spin around the block, step up to the plate, etc. If you care about the club, consider adding some new energy, ideas, and skills to the leadership mix. What would you like to see the club do? Take us there!

And keep in mind that if you don't show, you may find yourself nominated for something you really had *not* had in mind at all!



HAM-CON RELOCATES

PENDING THE PEN-TO-CONTRACT, the 2012 HAM-CON will be moving to the Holiday Inn by 89's Exit 14E.

The HI is easy to get to, has a 2400 sqft main room with easy vendor access, plus 3 smaller rooms for forums, relaxing and yakking, and whatever else we need them for. W1V can be set up in the hotel lobby which will be great exposure to the public. Final details still in the works, but we see this as a pretty good move and we expect a good show. Put February 25 on your calendars and plan to bring along lots of buddies, ham and other.



DECIBELS DEMYSTIFIED PART 2

Bob W1ICW

OFTENTIMES IT IS CONVENIENT to calculate our entire system gain or loss, and then we can come up with a single number to apply to the transmitter power.

In my Moonbounce system, I have gains and losses all along the path out to the antenna. I can add and subtract as necessary, and apply the net result.

Don't forget, a loss of power is *minus* dBs, and a gain of power is *plus* dBs.

For powers of ten, it gets even easier:

10 dB is a gain or loss of ten times.

-10dB loss is one-tenth of your power.

+10 dB gain is ten times your power.

20 dB is a gain or loss of 100 times gain or loss.

So, two zeroes behind the number 1.

30 dB is a gain or loss of 1000 times, or three zeroes behind the number 1.

As you can probably guess, 60 dB is 1 million times (1 followed by 6 zeros) or one-millionth... and 63 dB would be 2 TIMES a million or 2 million times.

Now for a tricky one: Suppose you wanted to figure out the gain in an HF amplifier that boosted your signal from 100 watts in, to 500 watts output.

We haven't really talked about a dB number that is 5 times your power out, but you can probably guess it's a number between +6 dB (4 times) and +10 dB (10 times).

Well, we can work backwards (here's rule number 5 from September: *You can add or subtract dB values to get additional ratios as needed*)—we know that 1 kW would be 10 times the power out (100 watts times 10 would be 1000 watts) and we know that 500 watts is half or 3 dB down from that, so we subtract +3 dB from +10 dB and get +7 dB! If you do the math you will find out that this works. A change of 5 times your power, or one-fifth, is indeed + or - 7 dB!

So a decibel represents a CHANGE in value. But what about a dBm? A dBm represents a finite power level.

More on that, SINAD, and more in Part 3, next issue.

JOTA OCTOBER 15-16

JAMBOREE ON THE AIR (JOTA) is the largest Scouting event in the world, pulling in Boy Scouts, Girl Scouts, and Girl Guides from all over the world.

The International Space Station NA1SS will be participating throughout the JOTA weekend. Astronaut Mike Fossum KF5AQQ, who is also a Scoutmaster, will be on the air whenever possible during

breaks from his schedule. The uplink is 144.490 and the downlink is 145.800 MHz.

If you have the time during the weekend get on the air and participate in the JOTA by making QSOs with the many scouts looking for contacts. After all, with all the fuss and complaints about getting new blood into the hobby, here's a group begging for encouragement. Let's welcome them in!



NO OCTOBER VE SESSION

Carl AB!DD

Just a note, there will NOT be a VE session October 14. Everyone will be at NEAR-Fest, come join us!!!

ANNUAL ARRL SET

Paul AA1SU/Robin N1WWW

This year's SET in Vermont will be held November 26, the Saturday after Thanksgiving, from 0900 to 1200.

Paul (ARRL's VT SM) and Robin (ARRL's VT ASEC) are putting together a scenario and other details. Vermont ECs and DECs will be contacted soon with the SET plan and instructions. Once the Nets are up and running that day, everyone is welcome to check in and play.



RANV

PO Box 9392
South Burlington, VT 05407

CRYPTOGRAM

from September

WSQJXWSQ PQ TGISP

"S GD PAXWQ GJYWI NPO TGISP OPTYJ. OWEE, MPF JWW, OSTW XWEWLTGCNM SJ ESYW G HWTM EPQL KGX. MPF MGQY NSJ XGSE SQ QWO MPTY GQI NW DWPOJ SQ EPJ GQLWEWJ. IP MPF FQIWTJXGQI XNSJ? QPO, TGISP SJ WBGKXEM XNW JGDW, WBKW-CX XNGX XNWTW SJ QP KGX."

Answer: *Einstein On Radio*

"I am often asked how radio works. Well, you see, wire telegraphy is like a very long cat. You yank his tail in New York and he meows in Los Angeles. Do you understand this? Now, radio is exactly the same, except that there is no cat."

How'd you do? Need some help?



A=F B=X C=P D=M E=L F=U G=A H=V I=D J=S K=C L=G M=Y
N=H O=W P=O Q=N R=Z S=I T=R U=B V=J W=E X=T Y=K Z=Q

INSIDE

- Decibels Part 2
- HAM-CON
- Officer Nominations
- The 2011 SET

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Upcoming, Notices, & Other Misc

- RANV: October Meeting—10/11
- RANV: November Elections—11/8
- NEAR-Fest—Oct 14 & 15; www.near-fest.com/
- Steering Wheel: 3rd Tues, 6:30-8:30—Ninety-Nine Restaurant, Taft Corners
- 2011 SET—Sat., 11/26, 9–12
- Dues due? Pay online at www.ranv.org/ranvpay.html
- VT Ham Radio Calendar www.vthrc.net

NEXT MEETING

TUESDAY • OCTOBER 11 • 7:00^{PM}

O'Brien Civic Center
113 Patchen Road • South Burlington

"SkyWarn"

www.RANV.org