



Feedline

Club Meeting 7pm Thursday, Feb. 13th, Campbell building, Niagara Region, Thorold



Thanks to a dedicated group of volunteers lead by Clayton,VE3AUO, and assisted by Dennis VE3XC, the 42nd Big Event went off without a hitch. Club volunteers began arriving at 6am and vendors were lining up at the side door of the Merritton Lions Community Centre in St. Catharines at 7am. At 9am the main hall doors opened and hundreds of shoppers began filling the large hall. NPARC volunteers wearing bright coloured safety vests collected the \$8 entrance fee, sold 50/50 and grand prize tickets. Volunteers manned the kitchen and security patrolled the aisles. At noon after the crowd left, many for the annual ONTARS sponsored lunch at the Swiss Chalet, all that was left to do was to count the proceeds. The flea market will require a new chair next as Clayton is retiring. Congrats Clayton for your expertise.





[MORE BIG EVENT PHOTOS PAGES 9 to 15](#)

VA3RPK PRESIDENT’S REMARKS

Due to Alex’s father’s death his report was delayed and not available for this month’s Feedline. Our sincerest heartfelt sympathies go out to Alex and his family at this very sad time.

NPARC General Meeting Minutes January 9, 2020

Meeting called to order 7:12 pm —14 in attendance

Minutes of December meeting accepted as printed in the Feedline.

Treasurer’s Report - Clayton VE3AUO

Discussion regarding publication of an updated membership list has raised privacy concerns. It was suggested that only names and callsigns be given due to some folk having received soliciting emails in the past. NPARC currently has 30 paid memberships, but 56 including life members and new hams, who don’t have to pay annual dues. Geddie (VE3CJX) has volunteered to form an ad hoc phone committee to call those who haven’t renewed to see if they will do so.

New Ham Academy — Steve VA3FLF is still in need of instructors. Classes are held in Stevensville at the Black Creek Community Association building.

Executive Update - Henry, VA3OV, has graciously volunteered to act as Vice President until June 2020. We are still in need of a Public Relations Officer.

Feedline - Denis, VE3ONO, is looking for contributions to the Feedline from any and all. He wants some ham related content to make it more interesting.

Repeater Update - John VA3WM

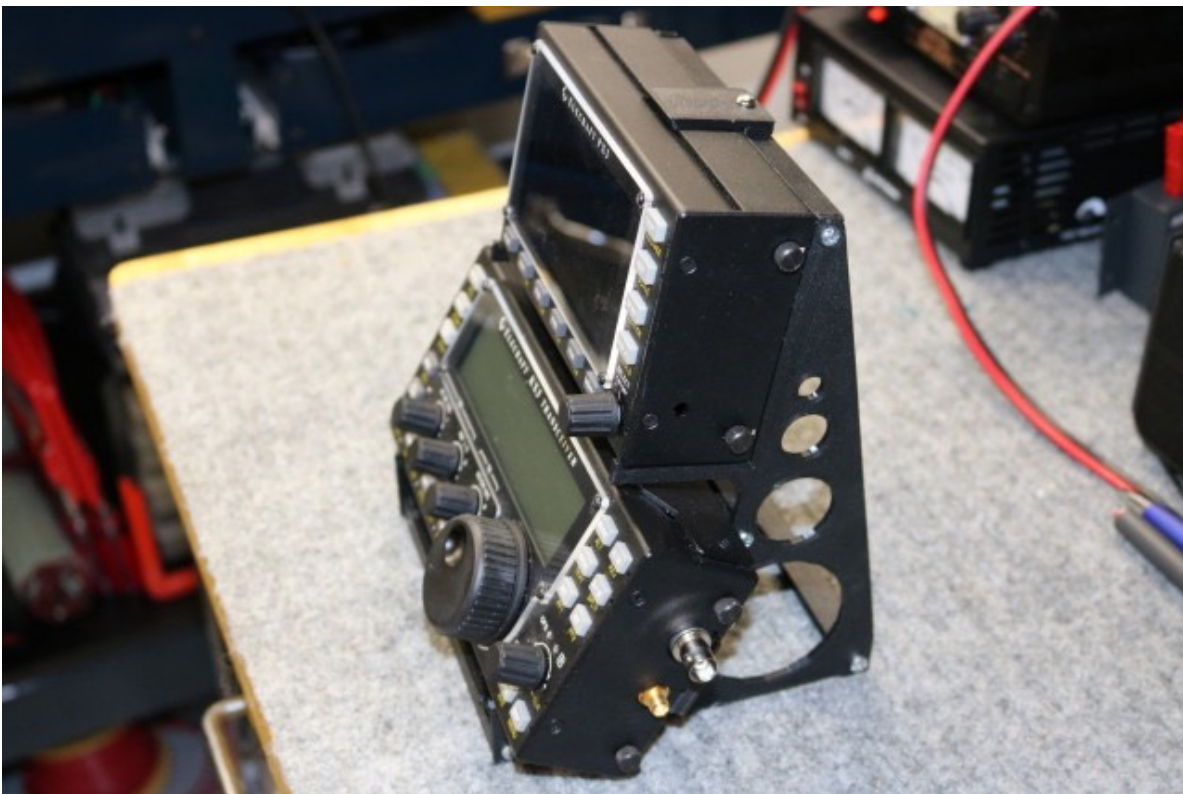
VE3NRS is still offline, but Brian, VA3BDL, will be assessing to see what the repeater may need, hopefully the week of January 23rd. the Wires X feature of VE3RNR is getting good use. A talk will be given at the New Ham Academy regarding Hotspots and Wires X.

Show and Tell - Glenn, VE3NDW, ordered Arduino kits online and gave a talk on many possible ham radio applications for them.

50/50 draw - \$13.50 was won by Geddie, VE3CJX, who donated her winnings back to the club to help with operating expenses.

April, VE3BHG, Secretary.

3D PRINTER CREATES PROFESSIONAL MOUNTING STAND



Pictured above is a project undertaken by Rick, VE3MM, for Lloyd, VE3ERQ. Using an Ender 3 Pro 3D printer he was able to create a strong, lightweight, bracket that holds an Elecraft KX3 and a PX3 panadapter. The design was shared by Robert, K5TD, combines the small all mode, 160-6M, 10 watt radio and panadapter into a single free standing unit. 3D printers start around \$200. Rick uses [thingiverse.com](https://www.thingiverse.com) and [tinkercad.com](https://www.tinkercad.com) for design plans and software.

HT TEST Part 1 - DETERMINING MAXIMUM POWER OUTPUT

I have just looked at another article on the NPARCGroup web site discussing antennae testing and hand held transceivers. This latest article, at least, has the benefit of measurements by using a SDR receiver instead of just a general unproven opinion (ie: my friend heard me better with this antennae than another particular one). While in general, in the latest article, I agree that the conclusions are correct, there are many simplified assumptions he has made that that we might want to clear up.

As some of you know, I have done a lot of HT testing in the last few months. Rather than try and explain the whole test procedure, (and it would probably prove to be boring as well as too lengthy) I am going to submit the results of my testing in three parts. Part 1, this one, will deal with the variation of output power of the HT when connected to an ideal 50 ohm dummy load, so we will know the ultimate capability of the set **without an antennae** connected- in other words, maximum output power in the ideal world. In part 2 we will look at what happens to the power output when an antennae is connected, and in part 3 we will see what effect various antennae have on actual radiated power using a VHF/UHF field strength meter.

For this series of tests, I used a Baofeng UV-5R, a Surecom SW33 power/ SWR meter and a 50 ohm 5 watt dummy load. The Surecom SW33 seems to be about the only readily available power/SWR meter designed specifically to test VHF/UHF hand held transceiver output. When I purchased the SW33 it was about \$50 Canadian. Pictures of the test set up and the 50 Ohm dummy load are attached. I measured the output power (and SWR- just to verify that the load was really frequency independent) supplied to an ideal 50 ohm dummy load over the VHF/UHF amateur frequency bands. (cont'd page 5)



Here are the results of the VHF test, all frequencies are in MHz and all output power is in watts.

Freq	148	147	146	145	144
SWR	1.0	1.0	1.0	1.0	1.0
Po(w)	4.9	4.6	4.6	4.5	4.4

In other words, the power output is frequency dependent.

Here are the results of the UHF Test

Freq	480	470	460	450	440
SWR	1.0	1.0	1.0	1.0	1.0
Po(w)	3.2	3.3	3.6	3.9	4.0

Again, the results are frequency dependent.

As you can see, the HT output power, in an ideal world application (ie: 50 ohm dummy load) varies with frequency. This is to be somewhat expected as it is hard to design a transceiver which would provide uniform output over the relatively wide amateur VHF/UHF frequency range.

For those of you who are interested in such things, each test was performed twice with a short time period between each test to let the heat dissipate in the dummy load. While the SW33 does read out in two decimal digits for power I rounded the power measurement up or down to the closest single digit.

The above testing was conducted using new, fresh Alkaline “AA” cells in the “AA” battery pack. There are still one major question remaining in our ideal output testing- what effect does the battery voltage have on the output? I used “AA” cells since I can readily discharge them (ok, I used them in a flash light to discharge them) and measure the HT output when the supply voltage is reduced. The designation Full (F) means fresh battery out of the pack, 3 relates to the 3 bars showing on the Baofeng UV-5R battery gage, similar for 2 and 1 and 0 (no bars). The frequency was set to 146.00 MHz, center of the 2 meter band. (cont’d page 6)

Here are the results -

Meter	Full	3	2	1	0
Po (w)	5.2	4.8	4.3	3.6	3.2

Obviously, the power output varies very much with the voltage of the power pack. Now, let's do one more testing, this time, I'll throw in the standard power pack that comes with the Baofeng, and also include the optional extended MaHr pack. Both packs were fully charged, then left for about an hour to allow any surface charge effects to dissipate. Same conditions as before- 146.00 MHz, 50 ohm dummy load, SWR 1.0:

“A” pack, fresh batteries- 5.2 watts

Standard pack- 5.9 watts

Extended pack- 6.0 watts

I don't think the difference in the output using the standard pack or the extended pack is significant, and yes, the UV-5R will exceed 5 watts output under ideal conditions with a fully charged battery.

So, the take away here- output varies with frequency, you cannot do anything about it. However, by using the Baofeng packs, and changing packs when the first bar on the volt meter disappears, you will get the most power out of your HT. While the “AA” pack is good to have for an emergency, it does not provide the same voltage and hence output power as the original Baofeng packs do.

Caution- your results may vary depending upon the make & model of your HT.

Glenn VE3NDW

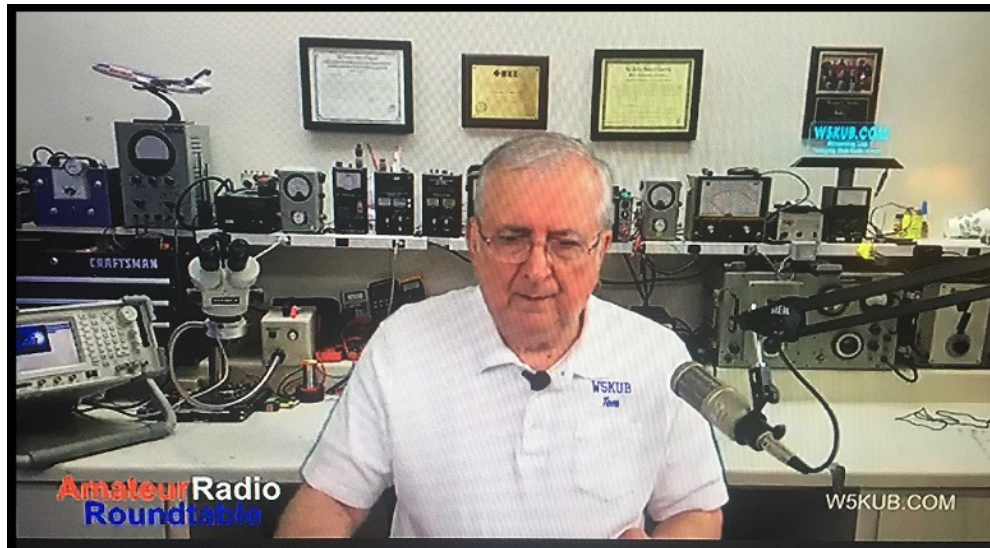


Glenn displays his latest Banggood OnLine store bargains.

NPARC EXECUTIVE

President, Alex Roglic, VE3RPK, Vice President, Henry Jarzyna, VA3OV
Secretary, April Lewis, VE3BHG, and Treasurer, Clayton Mattatall, VE3AUO.

LIVE STREAM FOR HAMS



A screen capture of Tom, W5KUB, during his weekly video stream found at <http://w5kub.com>. Amateur Radio Roundtable is live Wednesday, 9pm EST with many interesting guests and pre-recorded segments. Search W5KUB on YouTube for his archive and join <https://facebook.com/groups/w5kub/>

FEBRUARY CQ MAGAZINE

According to Rich Moseson, W2VU, Editor of CQ Magazine, the February issue is their annual QRP Special Edition.



REPEATER CHAIR - JOHN VA3WM

The VE3RNR UHF repeater, 443.175+ with 107.2 Hz tone, is now operational from E. L. Crossley School in Fonthill. The Yaesu System Fusion repeater is configured in Auto / Auto analog / digital mode. Wires-x connectivity is still being worked on.

VHF NETS NPARC Net, Wednesdays, 20:00, VE3NRS+, 107.2 Hz Tone.

Always looking for check ins and net controllers. Niagara ARES Net, Mondays, 20:00, VE3RAF, 145.190+, 107.2 Hz Tone. Trans Canada IRLP Net, Wednesdays, 11:00, VE3WCD, 147.310+, 107.2 Tone, IRLP 9013

NEW HAM ACADEMY

In January, NPARC successfully held its first New Ham Academy. This has been an objective for some time and we finally were able to pull it off. In the last two years we have conducted four new ham basic classes and one Advance class.

What happens when a new ham receives their ticket? Do they fade away into an abyss? It seems so for many of our graduates. We wanted to mentor or “Elmer” if you like the term and help them along the way. In December I sent an email out to the 20 some students who have passed the exam and invited them to come to the academy.

Although a bit disappointed in the numbers, I received confirmation from eight students that they would attend the training. We started on January 9th meeting for three Thursday nights and had a final session on Saturday, Jan., 25th for Winter Field Day. All the training was conducted at the Black Creek Community Centre in Stevensville.

We covered a multitude of topics for the sessions. Some of the topics included station set up, QSLing, HF operations, VHF /UHF, wires-X, antenna theory, etc. The students were given an opportunity to work on soldering techniques and start an antenna building project.

Finishing up the course on Saturday the 25th we participated in the Winter Field Day Event. The students for the most part set up stations, antennas, and operated during the WFD for the better part of the day. We completed the festivities with a big “pot luck” meal with plenty of great food, fun, and fellowship.

I heard nothing but positive comments from the participants. Although there is no way we can teach everything in four sessions, it was a great opportunity to learn new things and to take the hobby the next level for the new hams. I want to thank the following club members and hams for helping instruct and mentoring the group. Henry Jarzyna VA3OV, Brian Kent VE3BMX, Mark Fuller VA3BGL, John Lorenc VE3WM, Alex Roglic VA3RPK, Phil Gebhardt VE3ACK, and Kevin Lemon VE3RRH.

Also a big thanks to the other club members that stopped by on various nights to set in and share some knowledge. Now a big congratulations to our six graduates and they are: **Mike Amadio VA3MPA, Erick Tuin VA3ETN, Terry Talbot VE3TOB, Frank Joseph VA3FJJ, Rob Moed VE3GGR and David VanKoughnett VE3DVK.**

ADVANCE LICENCE GRADS



Erick, VA3ETN, Terry, VE3TOB, Mike, VE3CKO, and instructor, Kevin, VA3KGS / VA3AC.

THE BIG EVENT 42 PHOTO ALBUM

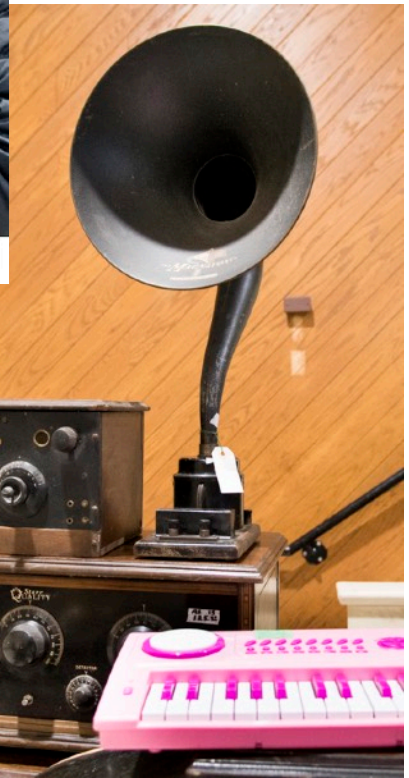


Jan and Len, of Wainfleet, mind their well stocked table at the Big Event 42. According to Len, VA3GBH, VA3CD, he has attended all the NPARC flea markets. Beginning in Port Dalhousie, the old Holiday Inn at Lake St. and QEW, then the CAW Hall for years before the current location in Merritton.



Clayton, VE3AUO, Big Event Chair





Lloyd, VE3ERQ, Barry, VE3ISX, Mike, VA3WM



Nick, KD2RHU, Tim, WB2KAO, Rochester, NY, Gary, VE3DZP, Dave N2RGU, Syracuse, NY.



Dave, VE3RNF & 19 Set.



Toronto area Hams, John, VA3BOF, John VE3IPS, Scott, VE3CQK, Greg, VA3KHG,



Burlington Amateur Radio Club members, Tom, VA3TM & Shaun, VE3XYY came to remind us their Flea Market is Sat., Feb. 29th.



John, VA3BOZ, Hamilton.

CLARA membership winners, Carol (l.) VA3TBH and April, (r.) VE3BHG, with Anne, VE3XAJ and president Alex, VE3RPK.



Ken, VE3KWG & Denis, VE3KVE.



Tim, VA3CNL, dad, John, VA3BNL & wife Carol, VA3TBH.



Guenther, VE3CVS, of Degen Designs.
(L.) Warren VE3XTB & Paul Ross, VE3PHR.



LeeAnn, KD2FYA XYL, David, W2DST, Rochester, NY.



Barry, VE3ISX & Gary, VE3DZP.



(top) Sons, Dan, (l.) and Michel (r.) with Dad, Paul, VE3PHR. Jamie of Cyborg Computers, St. Catharines, selling refurbished laptops and desktops.



OVER 2 ME... Feedline Editor - Denis VA3ONO

Three years before I was licensed I attended my very first Big Event. That was Saturday, February 7, 2009. Since then I've attended at least 10 of the last 12 flea markets held in Merritton. As a teenager I constructed several Heathkits. Probably about five that required point to point chassis wiring to tube sockets and terminal strips. I had no Elmer, just read the instructions and melted a lot of solder and created a fair bit of smoke. Too much heat and you would see the carbon resistors start to sweat! Most things worked from the get go including a bulky Heathkit oscilloscope I completed for the physics lab of our new high school. As far as know it just sat on the shelf for years as it wasn't part of the grade 12 curriculum. I had one other soldering 'gun' for hire project. A Heathkit mono amplifier hooked to twin 45rpm turntables mounted in a case. A DJ GoBox of sorts for our church dances I built in the early 60's. With all this electronics knowledge it seemed I was destined to become a radio amateur. Somehow I discovered a code class held around Phil VE3DQK Pitman's dining room table. One of the lads in the class was Dave Digweed, soon to be VE3FOI. I was soon to be out-of-luck. It appeared I had zero skill to send or receive Morse Code. My quest for an amateur radio license had to wait half a century. Would you call this perseverance or procrastination?

So on that first Saturday in February 2009 I walked into the Big Event for the first time, greeted by my old classmate Dave, "so you've finally joined the hobby!" Well Dave, I'm still thinking about it, was what I should of said. Instead I shook his hand and indicated I was looking for a good, used radio. Digweed immediately took me to a fine looking TS-140S transceiver sitting on the club table. I made a friend when I bought VE3PIO's Kenwood. Sadly Oscar is now a SK. I actually took him to his last club meeting two and a half months before he passed. I've made quite a few friends since 2012 when I officially joined the hobby and the club. Really interesting people from all walks of life. And so like the Super Bowl, the Big Event is over for another year. To all those volunteers who got out of bed to arrive at the hall at 6am, it was you and you alone, with teamwork, that made this important club event a huge success.