

Rambler

Newsletter of the
Ottawa Valley Mobile
Radio Club Inc. (OVMRC)
Volume 50, Issue No 6



And the winner is

CONFIRMING CONTACT WITH STATION _____
ON _____ 20 _____ TIME _____ UTC.
FREQ _____ MHz MODE _____ RST _____
POWER _____ TX/RX _____
ANTENNA _____
73 _____

VE3RAM
PORTABLE CLUB STATION

P.O. BOX 41145
OTTAWA, ONTARIO, CANADA
K19 5K9

RAC

There were three excellent entries to the QSL card competition. The judging was done by the Club executive present at the November executive meeting, and the winning design was by Roy Parsons, VA3CKD. Thanks to all three, who took the time and effort to design a card.

Alan Steele, VA3STL

Inside...

- QSL Contest 1
- Ramblings..... 3/4
- ARES What is it? 4
- 6M J-Pole 5/6

Reminders...

- Club Meeting Jan 19
7:30 P.M.
- Jan Executive Meeting .. Jan26
- Rambler Deadline..... Feb 10
- Feb Club Meeting Feb 23
- 2m Simplex Contest... May 7
- Field Day Jun 24/25



Rambler

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Club Web site

The OVMRC **Rambler** is available on-line at the club Web site:

<http://www.ovmrc.on.ca/rambler.htm>

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Amateur Radio Exhibit
VE3JW
Web Site

<http://ve3jw.tripod.com>

Canada
Science & Technology
Museum



Next meeting
Jan 19
Rambler Deadline
Feb 10



OVMRC Repeater

147.300 MHz(+)
444.200 MHz(+)



OVMRC web page

<http://www.ovmrc.on.ca>
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Happy New Year!

So was Santa good to you? Did you find the TS2000 or the FT 847 in your stocking? No antennas knocked down by the reindeers and the sleigh?

Thanks go out to my daughter for renewing my RAC Membership again for Christmas. This actually is something you should think about. Most family members do not know what to get the "Active Amateur" for Christmas. In my case I modified my RAC Membership so it expires at the end of December and so now every year my family renews my membership as a Present for me. It's a perfect fit...right size, right colour and it's also something I need and want. Thanks again "Rikki"!

Check your day planners-This is a reminder that our February Meeting will be on the 4th Thursday of the month, which is February 23rd due to a prior commitment at the museum.

The Canadian Ski Marathon is quickly approaching. I hope you found Richard's talk enlightening and that you also can find the time to assist this most worthy Public Service Event. As mentioned by Richard this is one of the few Public Service Events that cannot work without our assistance. Remember, "When all else fails...AMATEUR RADIO!!!"

What interests you? What part of our wonderful hobby seems to grab your interests? Digital, CW, Contesting, or Ragchew??? Why not share it with the rest of us? Why not write a small article for the RAMBLER on your hobby. Also, I would like to try and schedule some events that you want to participate in.

Let me know what you would like to see happen and lets see if we can make it happen. Lets get some activity out there to defeat the dreaded winter doldrums.

At our December general meeting we voted on the recipient of the Jerry Wells Amateur of the Year award. This month we will be awarding it to Steve VE3SBC and I must admit I am more than pleased. Due to deadlines I am not sure if things can actually fall into place, but we are hoping to have June Knight who was Jerry's wife in attendance at the meeting to present the award. I have never met the lady but am hoping for the honour at our January meeting. I will also be honoured to be one of the first to shake Steve's hand after the award has been presented.

Club Participation- Whenever we hold an event, set up a station or do anything club related out side of our general meetings it seems a lot of the general membership just don't bother to turn out and support their club. You show up at the General Meetings once a month but seem to forget about some of the other things the Club needs your help with. PLEASE consider this as your invitation to join us at some of the club events. As I have mentioned earlier:

"The OVMRC is a great club! More than that... it's your club! Why not volunteer some of your time to make it an even better club?". We can't do it without you.

The best of 3 worlds...With the return of VE3RVI to the repeater site at 580 Booth we now have a better repeater system to offer the local amateur community.

If you are stuck in the Centertown core you can use the 70cm side of VE3TWO and avoid most of the intermod. Driving through the suburbs you now can switch to the 2m side of VE3TWO. Heading out of town and need more time to talk? Now you can switch over to VE3RVI and continue the talk with the longer ground wave of 6m. Thanks go out to our Technical committee headed by Jake VE2TQX for their work and also to Doug VE3SPF who actually is the owner of VE3RVI and leases it to our club at a really good price so we can give you more spectrum to play with. The 2m and 70cm side of the repeaters are slaved and the 6m link can be opened/closed from the 2m side.

Old but important news- the first FN 25 Net was held on the linked OVMRC Repeaters (VE3TWO V/U and VE3RVI) on the first weekend in December and the NCS was Jake VE2TQX. Check ins on 6m were good along with some stations on 2m. The first net proved that some audio levels need to be adjusted between the two repeaters but I believe it is something to look forward to. You can participate in this net on Saturdays at 1930 hrs local on VE3TWO/VE3RVI.

Speaking about nets- I got this off the Official Bulletin Service for RAC and as we have been talking about NTS I thought you should be brought up to speed:

"Due to the current conditions on the HF bands it has been decided That the Ontario Phone Net (OPN) will move from 7:00 P.M. up to 6:45 P.M. on 3742 kHz. The warm up usually begins at that time, and signals are usually quite readable from most areas. By approximately 7:05 pm, we have lost local communications, hence the decision to move up the start time. Please make note of this change, to be implemented as soon as possible.

I have contacted the Section Manager, and have received his approval.

Glenn Killam, VE3GNA, OPN Net Manager

Hopefully the new time for the net will assist those interested in serving us.

Time Stamp- I like to throw these dated items in now and again just to let you know roughly when I'm writing this. Well today is the first day of our two day "Talk to Santa" event at the Museum and in about 3 1/2 hours I will be at the museum with Larry VE3WEH and Don VE3DRO helping the "little ones" get their message across to Santa via AMATEUR RADIO. I give Larry the bragging rights but it was a good event complete with Television coverage. Hats off to VE3WEH for a job well done.

HOME BREW NIGHT - And I don't mean 807's! This is your reminder that we will be holding our annual Home Brew Night at our March Meeting. Start working on your projects now! More details will be following both in the Rambler and on our various VHF and HF Nets.

HELP WITH REPEATER TESTING- I would like to hear from those of you who operate from the fringes. Just drop me an email (va3rcs or va3qv at rac) and let me know how far out you can operate using our 3 repeaters (2m/70cm or 6m) No real testing has been done in a while and I am just curious... So the next time you go out for a Sunday drive check things out and let me know how far out you were able to access our repeaters and what you were using for a rig and an antenna with what power setting.

Canada Winter Contest- Well the propagation was not the best but some of you must have read my previous Ramblings or stayed awake at the meeting but I heard a multitude of Club Members active during the Contest.

FANTASTIC!!!! Amateur Radio Operators talking on the radios... What a concept!!! Unfortunately my score for this year will not be one for the record books but I had fun just the same. Thank you all for being there.

Also thanks have to go out to "That other Ottawa Club" (OARC) for operating the VA3RAC Station for the duration.

History almost repeats itself- At approx 2040 hrs UTC December 25th while monitoring on 14.300 which is the Maritime Mobile Service Net Frequency I heard a call from VE0SWP (Marine Mobile) looking for a patch into what I thought was the Toronto

Area. I believe he was in Panamanian waters but was not sure. Unfortunately band conditions were not the best and I did not have a good enough signal to assist but a station from "5Land" in the USA had a good signal and they QSY'ed off the net frequency to make the contact and I lost them in the QRM after that. Remember we can't help if we don't monitor net frequencies.

ARES News- The following information was copied and I thought you might find it interesting-

To all Ontario ARES interests:

Due to propagation concerns, effective Sunday Jan.1,2006.

the Sunday evening ONT.ARES NET on 3.742 mhz. will follow immediately after the OPN/NTS Traffic net closes around

7:15 to 7:30 hrs.

Yours in Service ;

Bob Gammon. VA3RX.

Ontario ARES SEC

If you need any more information on the ARES Ontario Nets check out their website at :

<http://racaresontario.ca/public/index.php>

Or contact our District Emergency Co-ordinator- Mike VE3IPC at rac

Parting Shots-

Thanks to Jim VE3NVI for all his hard work supporting the NTS over the years. As of December 31st Jim has decided to retire and give up his duties as Net Manager for the Kingsmere Traffic Net and the Ontario Section Net. His hard work and dedication will be missed but hopefully someone will pick up the slack and the system will continue to function.

Congrats go out to Martin VA3SIE for winning the Joe Norton Award, which is sponsored by the OARC. The award goes out to a "New Amateur" who has contributed to the advancement of Amateur Radio. After working on Maple Island with Martin and hearing of some of his plans I know that he is deserving of the award.

Once again thanks go out to Sydney VE3GVI for running the Christmas Day Net on VE3TWO and VE3RVI. Although it was a busy day with Radio and Family clashing for time the net went off very well. Thanks also go out to those who participated as for a net to be successful it takes a good net controller as well as participants.

The final comment-

While listening to the Queen's Christmas Message this year I was reminded of how many Disasters (both Natural and man made) we have had in 2005. Although Ken will be talking to us at the January Meeting and we have a very well run ARES group in the Ottawa Area I will remind you that if you are going to contribute in the case of an emergency YOU and YOUR equipment must function. Make sure the batteries are charged, make sure the antennas are still working and make sure you know how to use your equipment. If you don't have a battery backup, why not consider getting one? If you have the ability to help yourself it also gives you the ability to help your neighbours and your community.

Till next month...

73bob

Amateur Radio Emergency Service What is It?

ARES is composed of licensed radio amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service, when disaster strikes. Every licensed radio amateur, whether or not a member of RAC or any other local or regional organization, is eligible for membership in the Amateur Radio Emergency Service. The only qualification is a sincere desire to serve. The possession of emergency-powered equipment is desirable, but not a requirement. (From RAC website)

With the internet, echolink, satellite phones and cellular phones the number of QNI (check ins) to many VHF and HF A.R.E.S nets is declining and causing some concern among Net Managers as well as Net Control Station operators. Many are asking if it is worth running a net anymore. But the answer is YES it is.

Radio will continue to save lives and be there when many of our newer communications modes fail us. We are a very diverse and dedicated group that can be mobile or portable in minutes and ready to take on a task at hand. We can run without electricity and use portable power. No matter how bad sunspots or solar flares can be, you can bet that one band or frequency will still allow a means of communication, again the diversity we have.

We need to utilize our spectrum as best as we can, if we do not use it, we will indeed have it taken from us by those who are willing to pay for the spectrums that we currently have for FREE. And we need to let the public know we are out there as well to help and assist in times of need, and for volunteer functions providing the communication needs at hand. This is a vital part if we are to survive. If you look south of the border, the US Government and other agencies recognize and give to the Amateur Radio Society without blinking an eye as they know and have proven their worth time and time again. Yes we are in a part of the world that does not see the types of natural and manmade disasters, but we can always be ready. So we need to think about this before we complain that we do not get any help from agencies around us and within our community, we need a proven track record of things accomplished. Without reliable data we are just another person (group) with an opinion.

We need those check ins to our NETS and practice message handling. Generate a message and pass it on to keep the N.C.S. happy and feel like he is accomplishing something on a regular basis and not wasting his/her time sitting in front of the radio.

Nets run both Morse code and voice so do not be afraid to check in at some point. Read up on some net structures and format for checking in, maybe you will be asked to pass a piece of traffic. There are many nets out there across the Province. Country and the World on all bands 24 hours a day.

The Northwest ARES net meets nightly at 0015/0115 z on or near 3.750 kHz, stop by and say hello to the Net Control Station, they will appreciate it for sure.

This is also a great place to meet other local and district hams and see what is happening in their part of the district.

<http://www.rac.ca/fieldorg/racares.htm>

<http://racaresontario.ca/public/documents.php>

http://racaresontario.ca/public/display_opn_info.php

Check out the links above for other information on ARES. Randy VA3OJ is our Emergency Coordinator for Woods Western District so contact him for any other information on joining ARES. If I can assist as well please do not hesitate to call me as well.

Many thanks

Fred Lesnick VE3FAL

flesnick@tbaytel.net

Net Manager NW ARES Net 3.750 at 0015/0115z 365 days a year
District Emergency Coordinator Woods District ARES

An Amateur Radio Project

Introduction

Having recently expanded my amateur radio collection to include 6-meters, I found myself needing something more than the wire dipole antenna I originally installed. Most of the big boys around my QTH were regularly working a repeater which is located roughly 70 miles away. Sadly, my 5 watt QRP FM unit into the wire dipole was not cutting the mustard.

My original plan was to purchase an after market base vertical. After seeing the prices and comparing gain figures, it became obvious that I could do just as well myself for around \$20 in material! I had already successfully constructed a 2-meter J-Pole, so why not apply the same concept to a 6-meter version? Being one who enjoys a challenge, I set out to try.

Theory of Operation

The J-Pole antenna is an omnidirectional, half-wave antenna fed via a quarter-wave matching stub. The result is essentially an end-fed dipole which exhibits more gain and a lower take off angle than the traditional half-wave dipole. The original idea comes from the Zepp antenna which was developed for use on the German (Led) Zeppelin airships. The quarter-wave matching stub acts as a transformer and transforms the high impedance of the antenna to match the 50 ohm impedance of standard coaxial cable. This makes the antenna not only economical to build, but also fairly easy to interface with standard coaxial transmission lines. Along with these advantages, the silly looking thing actually talks pretty good too! The math and my 2-meter field testing show between 3 and 5 dB gain over the simple half-wave dipole (depending on frequency SWR). Not bad for a homebrew job, eh?

Materials Required

Unlike many other large radio-related undertakings, the materials for this project can all be purchased through your local hardware or plumbing supply store. In fact, aside from the coax, this antenna is nothing but a big plumbing project.

Material List:

Item Description Qty.

- 10-foot, 3/4" Copper Pipe 2
- 4-foot, 1/2" Copper Pipe 1
- 3/4" Copper Tee 1
- 3/4" 90 degree Elbow 1
- 3/4" to 1/2" Coupler, Copper 1
- 1/2" Copper Cap 1
- 3/4" Copper Cap 1
- 3/4" Hose Clamp 2
- 2" Hose Clamp (Mounting) 3

A Few Words About Constructing This Antenna

This project is a study in accurate use of measures and copper pipe soldering techniques. If you have never soldered copper pipe before, you might want to consider measuring, cutting, and dry fitting the antenna before taking the parts to a local plumber for final assembly. That said, soldering copper pipe is not difficult if a few rules are followed. Prior to actually assembling the antenna, it is a good idea to take a few scrap pieces of copper and a coupler or two and practice your soldering technique. Once you have gained the confidence of actually doing this, your project will go much smoother. Here are a few pointers:

Make Sure the Pipe Joints are Clean

The ends of the pipe to be joined must be clean and free of oxidation. Plumbers sandpaper is the best way to accomplish this. Thoroughly clean each pipe end using sandpaper just prior to soldering. Also, make sure to clean the inside of each coupling joint. The pipe surfaces should look rough and shiny like a new penny. Once a surface has been cleaned, avoid any contact with your hands. The oil on your skin will prohibit good solder adherence.

Use Plumbers Solder Flux

Before fitting the two pipe portions together, apply a thin coating of plumbers flux to both the pipe and the inside of the joint coupler. The flux heats up and provides a path for the solder to flow into the joint.

A Quick Soldering Tutorial

Here is my method for soldering copper pipe joints. This method will work for this antenna project as well as any other plumbing projects you might have around the house.

6 Meter J-Pole Antenna (Cont'd)

- Dry fit the pipes and verify that the length measurement is correct.
- Thoroughly clean the surfaces to be mated as discussed above.
- Apply a thin coating of solder flux to the surfaces being mated.
- Using a Benz-O-Matic (or similar heating torch), heat the joint until the flux is flowing and solder melts when touched to the joint. Quickly remove the flame and apply solder to the joint, making sure it is flowing all around the joint.
- Quickly wipe the joint using a clean, dry shop rag. This will give the joint a clean, professional appearance.
- Allow the joint to cool before continuing.

Construction Notes for the J-Pole

There's not much in the way of step-by-step instructions for this antenna. A picture is worth a thousand words. Using the simplified mechanical drawing below, you will be able to measure and construct your J-pole for the desired frequency. I found a good SWR

(2:1) across 2 MHz on either side of the design frequency. Of course, if there is one frequency you use

most often, you should measure and cut the J-pole for that specific frequency in order to get a 1:1 SWR. I obtained a flat 1:1 match at 52.525 MHz using the dimensions outlined in the drawing. This puts my match at no more than 2:1 across the entire 6-meter phone band.

In order to save weight and lower wind resistance, 1/2" copper pipe was used for the top 45-inches of the antenna. This also gives it a much nicer look. The length

of 1/2" copper is arbitrary which is why it is not noted on the drawing. I actually used 45-1/4 inches because it made the measurement easier. The rough measurement of 45-inches was chosen more for maximum weight savings as well as making the antenna look more balanced to the eye. I have a thing for aesthetics I guess.

Also note that all exposed pipe ends require a cap to keep the elements out. Be sure to figure the caps into your measurements. I strongly urge dry fitting the entire antenna prior to soldering so that all measurements can be checked and verified.

You will notice from the drawing that a 1:1 coaxial decoupling balun has been specified. Since 50 Ohm coax is unbalanced and being fed into a balanced antenna, this decoupling loop is necessary to keep unwanted RF from being absorbed from the radiator and straying down the shield of the transmission line. We form the decoupling loop by turning RG-8 coax 5 times in a 5-inch diameter. I used a roll of masking tape as my guide and it yielded a perfect 5-inch diameter loop. Secure the loop to itself with tie wraps. Once the coax has been attached to the antenna and the SWR adjusted, the loop should be further secured to the antenna with tie wraps as shown in the illustration.

Feeding the antenna is done by soldering the coax ends to pipe clamps. This makes SWR adjustment easier than soldering the coax directly to the copper pipe. You simply slide the pipe clamps up and down in tandem until you obtain the best match. I was able to obtain a 1:1 match at 52.525. Additionally, future adjustments and coax changes are much easier this way.

Have fun with this. It's a great antenna that can be made in a day for a fraction of the cost of an aftermarket antenna. If you decide to build one, please post your experience/results. We would love to hear your thoughts.

73 de W8CWE

